Department of Civil Engineering					
Semester – VI (Session 2021-2022)					
Subject: Design of steel Structures Subject Code:6CE01 Section: A					
SUBJECT TEACHER: Prof. P.S.Pajgade					
Unit No.	**Topic No.**	**Topic with detail course outlines**	**Text and References**	**No. of Periods Allotted**	**Remark**
I	1	• Introduction to WSM, LSM & Plastic analysis of steel structure, plastic hinge, plastic moment capacity, shape factor, plastic section modulus.	Duggal, S. K., Design of Steel Structures, Tata McGraw Hill Pub. Company Ltd. M. L. Gambhir, Fundamentals of Structural Steel Design.	8	Total Lectures for Unit I: 14
	2	• Design of bolted & welded connections subjected to axial and eccentric loading (In the plane of group of Bolts & Weld).		6	
II	1	• Design of Compression & Tension member.	Shah & Karve, Design of steel structures. Sheyakar, Design of steel structure. Bhavikatti, Design of steel structure	6	Total Lectures for Unit II: 12
	2	• Design of Industrial shed.		6	
III	1	• Design of simple & compound columns for axial loading.	Shah & Karve, Design of steel structures. Sheyakar, Design of steel structure. Bhavikatti, Design of steel structure	4	Total Lectures for Unit III: 8
	2	• Design of column bases (Slab base & Gusseted base) subjected to axial load.		4	
IV	1	• Design of simple Beams (laterally supported).	Shah & Karve, Design of steel structures. Sheyakar, Design of steel structure. Bhavikatti, Design of steel structure	4	Total Lectures for Unit IV: 6
	2	• Design of compound Beams (laterally supported).		2	
			Total Lectures Required	**40**	

Department of Civil Engineering					
Semester – III (Session 2021-2022)					
Subject: Building Construction & Materials					
SUBJECT TEACHER: Prof. S. V. Dharpal					
Unit No.	**Topic No.**	**Topic with detail course outlines**	**Text and References**	**No. of Periods Allotted**	**Remark**
	1	Introduction: Definition, types of buildings as per national building code, components of buildings and their functions,	Building Construction: Sushil Kumar	2	Total Lectures
	2	Types of structure - load bearing & framed structures.		2	

I	3	Foundation: Definition and necessity, loads of foundation, Bearing Capacity soil, field methods of improving bearing capacity.		2	for Unit I: 8
	4	Types of foundation - shallow foundation and Types of Shallow foundation.		1	
	5	Causes of failure of foundations and precautions to be taken.		1	
II	1	Masonry: Classification of bricks, manufacturing of bricks, tests on bricks.	Building Construction: Sushil Kumar	2	Total Lectures for Unit II: 8
	2	bricks, properties of burnt bricks, fly ash bricks, ALC Blocks.		2	
	3	Brick masonry construction - Technical terms, general principles, commonly used types of bonds such as stretcher, header, English bond and Flemish bond, their suitability.		1	
	4	Formwork: Different types, their relative merits, demerits, period for removal of formwork for different members.		2	
	5	Earthquake resistant bands in Masonry- Types, location and application.		1	
III	1	Floors: Types of Floors ± Basement floor, ground floor and upper floors,	Building Construction: Sushil Kumar	1	Total Lectures for Unit III: 8
	2	floors, Floor finishes ± Types of flooring material, different types of floor finishes, suitability,		2	
	3	Method of construction, criteria for selection. Roofs- Flat, pitched roof, steel roof trusses- types and suitability,		2	
	4	Arches, lintels ± Types and their Suitability. types of roof covering.		2	
	5	Details of R.C.C. lintels. chajja, precast lintels arches.		1	
IV	1	Doors: Purpose, criteria for location, size of door, door frames.; its types, methods of fixing,	Building Construction: Sushil Kumar	2	Total Lectures for Unit IV: 8
	2	Types of door shutters and their suitability,		2	
	3	Windows -Purpose, criteria for location, no., sizes; shapes of Windows, types of windows; their suitability.		2	
	4	Ventilators - Types and their suitability.		1	
	5	Fixtures & fastening for doors and windows.		1	
V	1	Stairs- Function, technical terms, criteria for location, types of staircases, their suitability,	Building Construction: Sushil Kumar	2	Total Lectures for Unit V: 8
	2	Principle of stair layout design.		2	
	3	Plastering - Necessity, types, processes of different types of plastering, defects in plastered work.		2	
	4	Scaffolding ± Purpose, types and suitability.		2	

VI	1	Fire proof construction -Fire protection requirements for a multistoried building.	Building Construction: Sushil Kumar	1	Total Lectures for Unit VI: 8
	2	Sound proof Construction -Sound absorbents and their characteristic.		1	
	3	Expansion & construction joints in building.		1	
	4	Introduction - Different branches of Geology and importance of Geology in Civil Engineering.		1	
	5	Folds, faults, joints in Geology.		1	
	6	Geology. Geological studies related to site selection for dams and reservoirs.		1	
	7	Petrology - rock cycle, rock Weathering, Soil formation, study of common rock types.		1	
	8	Earthquake Engineering - earthquake waves, causes and effects, Magnitude and intensity of earthquake, Earthquake zones of India.		1	
			Total Lectures Required	**48**	

Semester – VI (Session 2021-2022)					
Subject: Fluid Mechanics					
SUBJECT TEACHER: Prof. S. V. Dharpal					
Unit No.	**Topic No.**	**Topic with detail course outlines**	**Text and References**	**No. of Periods Allotted**	**Remark**
I	1	Properties of Fluid	Fluid Mechanics: R.K.Bansal Fluid Mechanics: R.K.Rajput	1	Total Lectures for Unit I: 8
	2	problems on properties of fluid		1	
	3	Rheological classification of fluid, cohesion, adhesion and surface tension		1	
	4	problems on dynamic viscosity		1	
	5	problems on kinematic viscosity		1	
	6	capillarity & Surface Tension & problems		1	
	7	Pascal's Law & Problems		1	
	8	Manometers and Problems		1	
II	1	Total pressure & centre of pressure	Fluid Mechanics: R.K.Bansal Fluid Mechanics: R.K.Rajput	1	Total Lectures for Unit II: 8
	2	Vertical, horizontal plain surfaces submerged in liquid		2	
	3	Buoyancy, Centre of buoyancy		1	
	4	Metacentre & Metacentric height		1	
	5	Analytical method of metacentric height		2	
	6	Conditions of equilibrium of floating & submerged bodies		1	
III	1	Method of describing fluid motion	Fluid Mechanics: R.K.Bansal Fluid Mechanics: R.K.Rajput	1	Total Lectures for Unit III: 8
	2	Continuity equation in three dimensions		1	
	3	Velocity potential function		2	
	4	Stream function		1	
	5	Eulers equation of motion		1	
	6	Brnoullis equation		2	
IV	1	Horizontal Venturi meter	Fluid Mechanics: R.K.Bansal Fluid Mechanics: R.K.Rajput	1	Total Lectures for Unit IV: 8
	2	Rectangular notch		1	
	3	Triangular notch		1	
	4	Darcys equation		1	
	5	Major & Minor losses in pipe		1	

	6	Pipe in series & parallel		1	
	7	Momentum equation application for pipe bend		2	
V	1	Buckingham's pie theoram	Fluid Mechanics: R.K.Bansal Fluid Mechanics: R.K.Rajput	3	Total Lectures for Unit V: 8
	2	similitude		1	
	3	Dimensionless no.		1	
	5	Geometrically similar models		1	
	6	Reynolds law		1	
	7	Froudes law, model study of spillway		1	
VI	1	Uniform flow, open channel flow	Fluid Mechanics: R.K.Bansal Fluid Mechanics: R.K.Rajput	1	Total Lectures for Unit VI: 8
	2	Geometric elements of rectangular & Trapezoidal sections		2	
	3	Chezys and Mannings equations		1	
	4	Most efficient rectangular & trapezoidal section		2	
	5	Specific energy curve, normal & critical depth		1	
	6	Analysis of surface profile		1	
			Total Lectures Required	**48**	

Department of Civil Engineering					
Semester – IV (Session 2021-2022)					
Subject: Building Planning Designing and CAD					
SUBJECT TEACHER: Prof. P. S. Deshmukh					
Unit No.	**Topic No.**	**Topic with detail course outlines**	**Text and References**	**No. of Periods Allotted**	**Remark**
I	1	Introduction: Importance of building drawing for Civil Engineering	Shah, Kale & Patki, Building Planning & Drawing, Tata McGraw-Hill plubication	1	Total Lectures for Unit I: 5
	2	Method of drawing – Selection ofscales for various drawings, types		1	
	3	Abbreviations & graphical symbols used in Civil EngineeringDrawing		2	
	4	Combined first angle & third anglemethod of projection.		1	

II	1	Layout of sheet for civil engineering drawing	Shah, Kale & Patki, Building Planning & Drawing, Tata McGraw-Hill plubication	1	Total Lectures for Unit II: 6
	2	Requirements of drawing as per plan sanctioning authorities.		1	
	3	Concept of line plan & working drawings of the building.		1	
	4	Developing working drawings of the building from the given lineplan		2	
	5	Necessityand use of working drawing.		1	
III	1	Concept of site plan, block plan andlayout plan. Importance and detail	Dr. Kumar Swamy & Rao Swamy, Charotar publications	1	Total Lectures for Unit III: 6
	2	Developing workingdrawing and foundation plan for load bearing		1	
	3	Planning of residential building. Introduction, general principleso		1	
	4	Planning of residential building. Introduction, general principleso		2	
	5	Climate and design consideration. Orientation of buildings		1	
IV	1	Building rules and by laws, for residential buildings, conversionof	Shah, Kale & Patki, Building Planning & Drawing, Tata McGraw-Hill plubication	1	Total Lectures for Unit IV: 6
	2	Types of public building and their requirements, planning of publicb		2	
	3	Preparing line plans of different public buildings suchas schools,		2	
	4	Free-hand sketching : Importancein Civil engineering.		1	
	5	Perspective drawing		1	
			Total Lectures Required	**23**	

Department of Civil Engineering

Semester – VIII (Session 2021-2022)

Subject: Water Resources Engineering-II

SUBJECT TEACHER: Prof. P. S. Deshmukh

Unit No.	Topic No.	Topic with detail course outlines	Text and References	No. of Periods Allotted	Remark
I	1	Reservoir Planning	Dr. Modi P.N. : Irrigation, Water Resources & Water Power Engg.	1	Total Lectures for Unit I: 6
	2	Reservoir Planning		1	
	3	Dams		1	
	4	Dams		1	
	5	Earth Dams		2	
II	1	Gravity Dams	Punmia : Irrigation & Water Power Engg.	1	Total Lectures for Unit II: 6
	2	Types of dams forces acting,		1	
	3	modes of failure;		1	
	4	principles of design of straight gravity dams,		1	
	5	Elementary and practical profile,		1	
	6	Earthquake and its effect on dams.		1	
III	1	Diversion Head Works: Selection of site and layout, components of diversion head works	Garg S.K. : Irrigation & Water Power Engg.	1	Total Lectures
	2	design of weirs on permeable foundation, construction details of Kolhapur type weirs.		1	

	3	Spillways: Types of spillway, spillway capacity, Flood routing through spillways,		1	for Unit III: 6
	4	Types of crest gates. Energy dissipaters: meaning,		2	
	5	Objectives, location. Types hydraulic jump, jet diffusion and Bucket type		1	
IV	1	Canal Irrigation: Types of canals, Parts of Canal irrigation system, Canal alignment	Dahigaonkar J.G. : T.B. of Irrigation Engg., Wheeler & Co.	1	Total Lectures for Unit IV: 6
	2	Design of unlined and lined Canals,		2	
	3	Balancing depth		2	
	4	cross section of canal, propose and types of canal lining		1	
V	1	Canal Masonry Works: Types and only design principles and description	Garg S.K. : Irrigation & Water Power Engg.	1	Total Lectures for Unit V: 5
	2	Regulation works: Canal fall's, Head Regulator, Cross regulator, Canal escapes and canal outlets.		2	
	3	Cross drainage works: Aqueduct, Syphon aqueducts, super passage, canal siphon, level crossing		2	
VI	1	Well Irrigation : open wells and tube wells, types of tube walls, duty of tube well water.	Garg S.K. : Irrigation & Water Power Engg.	**1**	Total Lectures for Unit V: 6
	2	Water Management : Water management and distribution, cooperative water user's organization, warabandi, conjunctive use of water.		**1**	
	3	Water shed Management : Need of watershed management, importance of soil conservation measures, techniques ground water harvesting.		**3**	
	4	River Training Works : Need and types of river training works.		**1**	
			Total Lectures Required	**35**	

Department of Civil Engineering					
Semester – I (Session 2021-2022)					
Subject: Highway Construction Management					
SUBJECT TEACHER: Prof. V. S. Gohatre					
Unit No.	**Topic No.**	**Topic with detail course outlines**	**Text and References**	**No. of Periods Allotted**	**Remark**
I	1	Highway: Development and Planning, Road Transport characteristics	Highway Engineering Khanna & Justo	1	Total Lectures for Unit I: 6
	2	Road pattern, Alignment principles		1	
	3	classification of Roads, Road development plans & Salient features, Road pattern		1	
	4	Egg. Survey for highway. Material and Testing.		1	
	5	Various properties of aggregates and bituminous		1	
	6	Materials and Test, IRC, IS Specifications, bituminous mix design.		1	
II	1	Geometric Design cross sectional elements, Right of way, Camber, Gradient	Highway Engineering Khanna & Justo	2	Total Lectures for Unit II: 7
	2	Typical Highway cross section in embankment and in cutting		1	
	3	PIEV Theory, stopping sight distance, Overtaking sight distance		1	
	4	Horizontal alignment - curves, super elevation, Extra widening, transition curves, vertical alignment		2	
	5	Design of summit and valley curves, IRC Standards for Geometric design.		1	
III	1	Pavement Design: Components of Flexible and Rigid pavement, Design factors	Highway Engineering Khanna & Justo	1	Total Lectures for Unit III: 7
	2	ESWL, Flexible pavement design by C.B.R. Method		1	
	3	Westergards analysis for wheel load		1	
	4	Temperature stresses in rigid pavement, Rigid pavement by IRC method		2	
	5	Joints in Rigid Pavement, Construction And Maintenance		1	
	6	construction procedure, construction of roads in expansive soil.		1	
IV	1	Traffic Control Devices Traffic signs, markings, islands and signals.	Highway Engineering Khanna & Justo	1	Total Lectures
	2	Different methods of signal design		2	
	3	redesign of existing signal including case studies		1	

	4	Signal system and co-ordination		1	for Unit IV: 6
	5	Evaluation and design of road lighting.		1	
V	1	Road Safety: Road accidents, Causes, scientific investigations and data collection.	Highway Engineering Khanna & Justo	2	Total Lectures for Unit V: 6
	2	Safety in Road Design – Accident prevention through better planning		1	
	3	design of roads – planning road networks by land use planning		1	
	4	Traffic calming techniques and innovative ideas in road safety.		2	
VI	1	Equipment in Highway Construction, Various types of equipment for excavation,	Highway Engineering Khanna & Justo	2	Total Lectures for Unit V: 6
	2	Various types of equipment for grading and compaction		1	
	3	advantages and limitations OF Various types of equipment		1	
	4	Special equipment for bituminous and cement concrete pavement		1	
	5	Special equipment for stabilized soil road construction		1	
			Total Lectures Required	**36**	

Department of Civil Engineering

Semester – VIII (Session 2021-2022)

Subject: Basics of Building Construction

SUBJECT TEACHER: Prof. P. S. Deshmukh

Unit No.	Topic No.	Topic with detail course outlines	Text and References	No. of Periods Allotted	Remark
I	1	Introduction: Definition of building as per national building code	DeshpandeR.S... And Vartak C.V.: A Treatise on Building Construction.	3	Total Lectures for Unit I: 6
	2	components of buildings and their function , Types of structure-load bearing structure and frame structures, their relative advantages and disadvantages, load bearing walls and partition walls		2	
	3	Types of foundation- Definition and necessity and types of foundations, precautions to be taken against failure of foundations		1	
II	1	Stone Masonry- Technical term, general principles to be observed during construction, selection of stone masonry.	Sharma S.K. Kaul and B.K.:A.T.B. Building Construction, S Chand and co.	3	Total Lectures for Unit II: 8
	2	Brick Masonry Construction- Technical term, general principles to be observed during construction		3	
	3	commonly used types of bonds such as Stretcher, Header, English bond Flemish bond and their suitability.		2	
III	1	Floors- Types of floors-Basement floor, ground floor and upper floor	Sane L.S.: Construction Engineering, ManakTalas, Mumbai	2	Total Lectures
	2	Types of upper floors-R.C.C. slab floor, R.C.C. slab and beam floor		2	

	3	R.C.C. grid floor, R.C.C. flat slab floor.		1	for Unit III: 7
	4	Floor Finishes Types of flooring material, Shahabad , Kota, Granite, Ceramic tiles, Plain tiles,		1	
	5	mosaic tiles glazed tiles ,different types of floor finishes , their suitability. Method of construction, criteria of selection.		1	
IV	1	Door –Purpose, criteria for location, size of door, door frames and its types, method of fixing Windows- Purpose	Chudley R.: Construction Technology, Volume I.II.III. And IV, Longmans Group Ltd.	1	Total Lectures for Unit IV: 7
	2	criteria for location, size and shapes of windows, types of windows and their suitability.		2	
	3	Ventilators – Types and their suitability. Fixtures and Fastening for doors and windows.		2	
	4	Arches and Lintels - Types and their suitability. Details of R.C.C. lintels and chajja, precast lintels and arches		2	
V	1	Stairs- Function, technical terms, criteria for location, types of staircases and their suitability.	Chudley R.: Construction Technology, Volume I.II.III. And IV, Longmans Group Ltd.	3	Total Lectures for Unit V: 7
	2	Painting and Coloring – Necessity, types, processes of painting and coloring to the wall surface,		2	
	3	Scaffolding- Purposes, types, suitability.		2	
VI	1	Special Aspects of Construction, Damp proofing-causes of dampness, its effects	Chudley R.: Construction Technology, Volume I.II.III. And IV, Longmans Group Ltd.	**1**	Total Lectures for Unit V: 7
	2	Fire proof construction- Points to be observed during planning and construction. Fire protection requirement for a multistoried building,		**1**	
	3	Sound proof construction –Sound absorbents and their characteristic. Joints Expansion and construction joints necessity,		**3**	
	4	details of expansion joint at foundation level and roof level of load bearing structure and framed structure, Provision of construction joints in slabs, beams and columns.		**2**	
			Total Lectures Required	**42**	

Department of Civil Engineering

Semester – VIII (Session 2021-2022)

Subject: Project Planning Management

SUBJECT TEACHER: Prof. V. S. Gohatre

Unit No.	Topic No.	Topic with detail course outlines	Text and References	No. of Periods Allotted	Remark
I	1	Project, Project Stakeholders, Project life cycle	CPM & PERT- Dr. B.C.Punmia & K K Khandelwal Project Planning & Management – Kundan Singh, M.L.Kansal	1	Total Lectures for Unit I: 7
	2	Conceptual Phase, Planning Phase, Execution Phase, Termination phase.		1	
	3	Concept of feasibility study, Budgeting, Cash Flow		1	
	4	Risk assessment plan. Project planning- Steps, work break down structure		1	
	5	Scheduling. Project Monitoring & Controlling- Concept of Tracking		1	
	6	Reviewing and Rescheduling. Planning Tools: Basic concept of Gantt chart, Bar Chart		1	
	7	Mile stone chart, their advantage, limitations and overcoming measures		1	
II	1	Networking – Activity, Event, dummy Activity	CPM & PERT- Dr. B.C.Punmia & K K Khandelwal Project Planning & Management – Kundan Singh, M.L.Kansal	2	Total Lectures for Unit II: 5
	2	Fulerson's numbering rule, Geometrical consideration.		1	
	3	Critical Path Method: Concept, technique, Critical path, Numerical on Time and Floats computation		1	
	4	concept of Updating Network and its numerical for computation.		1	
III	1	PERT: Concept, technique, three time estimates average time,	CPM & PERT- Dr. B.C.Punmia & K K Khandelwal Project Planning & Management – Kundan Singh, M.L.Kansal	2	Total Lectures for Unit III: 5
	2	Critical path, slack computation S.D, Variance,		1	
	3	Probability factor, crash programme, normal and crash cost, normal and crash time		1	
	4	cost slope, Numerical on Probability computation, crashing		1	
IV	1	Concept of resource smoothening and leveling, Cost Curves	CPM & PERT- Dr. B.C.Punmia & K K Khandelwal Project Planning & Management –	1	Total Lectures
	2	Numerical of it. Introduction to Planning		2	
	3	Various stages and process for Work Breakdown structure		1	

	4	planning, scheduling and resource allocation for project by software	Kundan Singh, M.L.Kansal	1	for Unit IV: 6
	5	scheduling and resource allocation for construction project using software		1	
V	1	Management- Feyol's Principal of Management, Functions of management	CPM & PERT- Dr. B.C.Punmia & K K Khandelwal Project Planning & Management – Kundan Singh, M.L.Kansal	1	Total Lectures for Unit V: 7
	2	organization definition, type line, line and staff functional organization, quality control, ISO		1	
	3	Safety management, construction hazards in multistage building method of prevention of accident, injury rate		2	
	4	injury severity rate, injury index, National safety council, its role recommendation		2	
		Material management, Objective, Functions, Inventory, Need for inventory, ABC, EOQ analysis.		1	
VI	1	Power shovel: Construction, working, Output, factors affecting, cycle time, Problem on Output	CPM & PERT- Dr. B.C.Punmia & K K Khandelwal Project Planning & Management – Kundan Singh, M.L.Kansal	1	Total Lectures for Unit V: 6
	2	payback period of equipments		1	
	3	Dragline: Construction, working, output, factor affect ting output		2	
	4	cycle time, Problem on output		1	
	5	Concrete mixer, Tilting and non-tilting type construction working.		1	
			Total Lectures Required	**36**	

Department of Civil Engg

Semester –III (Session 2021-202)

Subject: Transportation Engg

SUBJECT TEACHER: Prof. V. S. Gohatre

Unit No.	**Topic No.**	**Topic with detail course outlines**	**Text and References**	**No. of Periods Allotted**	**Remark**
	1	Road Transport characteristics	Jasto and Khanna L.R.Kadiyali NPTL	1	Total Lectures for Unit I: 6
	2	classification of Roads		1	

I		`			
	3	Road Patterns		1	
	4	Alignment principles		1	
	5	Survey for highway		2	
II	1	Cross sectional elements	Jasto and Khanna L.R.Kadiyali NPTL	1	Total Lectures for Unit II: 8
	2	Right of way, Camber,Gradient		1	
	2	Typical Highway cross section, PIEV Theory		1	
	3	stopping sight distance,overtaking sight distance		1	
	4	Horizontal alignment, curves,		1	
	5	superelevation		1	
	6	Numerical		2	
III	1	Components of Flexible and Rigid pavement, Design factor	Jasto and Khanna L.R.Kadiyali NPTL	1	Total Lectures for Unit III: 6
	2	Traffic Characteristics, Traffic Studies		1	
	3	Construction and Maintenance – WBM Surface dressing		1	
	4	bituminous roads and construction procedure		1	
	5	Road parking system,		1	
	6	traffic control devices and 3 E’s of traffic		1	

IV	1	Railway transportation : track sections, embankment & cutting	Jasto and Khanna L.R.Kadiyali NPTL	1	Total Lectures for Unit IV: 6
	2	Points and crossing Left &right hand turnouts.		1	
	3	Objects, Permanent way, gauges, coning of wheels		1	
	4	components of permanent way, Sleeper density,		1	
	5	Rail fixtures & fastening		1	
	6	Rail types and functions.		1	
V	1	Agencies controlling national & international aviation	Jasto and Khanna L.R.Kadiyali NPTL	1	Total Lectures for Unit V: 7
	2	various surveys to be conducted, airport site selection,		1	
	3	Aero plane component parts, Aircraft characteristics		1	
	4	Airport obstructions: Zoning laws		1	
	5	wind rose diagram.		1	
	6	Basic runway length and corrections		1	
	7	Apron layout, Aircraft parking & parking system		1	
VI	1	Size and shape of tunnels, and Tunnel lining.	Jasto and Khanna L.R.Kadiyali NPTL	1	05
	2	Tunnel drainage, ventilation & lighting of tunnels		1	
	3	Bridge Engineering-Components, classification and identification		1	
	4	Estimation of flood discharge, water way, scour depth, depth of foundation, Afflux, clearance and free board,		2	

			Total Lectures Required	**38**	

Department of Civil Engineering					
Semester – VII (Session 2021-2022)					
Subject: **Design of steel Structures Subject Code:7CE03 Section: A**					
SUBJECT TEACHER: **Prof. P.S.Pajgade**					
Unit No.	**Topic No.**	**Topic with detail course outlines**	**Text and References**	**No. of Periods Allotted**	**Remark**
I	1	Introduction to WSM, LSM & plastic analysis.	Duggal, S. K., Design of Steel Structures, Tata McGraw Hill Pub. Company Ltd. N. Subrramanyam, Design of Steel Structures, Oxford University Press, 2008.	8	Total Lectures for Unit I: 14
	2	Design of bolted & welded connections subjected to axial loading.		6	
II	1	1. Design of compression & tension member.	Shah & Karve, Design of steel structures. Sheyakar, Design of steel structure. Bhavikatti, Design of steel structure	6	Total Lectures for Unit II: 12
	2	1. Design of roof truss.		6	
III	1	1. Design of simple & compound columns for axial & eccentric loading.	Shah & Karve, Design of steel structures. Sheyakar, Design of steel structure. Bhavikatti, Design of steel structure	4	Total Lectures for Unit III: 8
	2	1. Design of column bases (Slab base & Gusseted base) subjected to axial load.		4	
		1. Design of simple Beams.	Shah & Karve, Design of steel structures.		

IV	1		Sheyakar, Design of steel structure. Bhavikatti, Design of steel structure	4	Total Lectures for Unit IV: 6
	2	1. Design of compound Beams.		2	
			Total Lectures Required	**40**	

Department of Civil Engineering					
Semester – IV (Session 2021-2022)					
Subject: Geotechnical Engineering - I					
SUBJECT TEACHER: Prof. P. V. Kolhe					
Unit No.	**Topic No.**	**Topic with detail course outlines**	**Text and References**	**No. of Periods Allotted**	**Remark**
I	1	History of development of soil mechanics, formation of soil, its significance to the field problems	Soil Mechanics and Foundation Engineering - Dr. K. R Arora Soil Mechanics and Foundations – Prof. B. C. Punmia	1	Total Lectures for Unit I: **8**
	2	Soil properties and its classification		1	
	3	Definition of soil, soil as a three phase system, weight – volume relationship		1	
	4	Index properties of coarse and fine grained soil		1	
	5	BIS classification of fine grained & coarse grained soil		1	
	6	Numericals		3	
II	1	Concept of clay mineral, major soil minerals, their structural formation and properties	Soil Mechanics and Foundation Engineering - Dr. K. R Arora Soil Mechanics and Foundations – Prof. B. C. Punmia	1	Total Lectures for Unit II: **6**
	2	Mechanics of compaction, factors affecting compaction, different structures of soil		1	
	3	Standard and modified Proctor test, their field Determination, zero air void line, concept of wet of optimum, and dry of optimum		1	
	4	Field compaction & their control. CBR test and CBR value for soak and unsoaked conditions.		1	
	5	Numericals		2	
III	1	Concept of absorbed water, surface tension	Soil Mechanics and Foundation Engineering - Dr. K. R Arora Soil Mechanics and Foundations – Prof. B. C. Punmia	1	Total Lectures for Unit III: **7**
	2	Capillarity and its effect on Soil properties permeability of soil		1	
	3	Darcy's law and validity, Discharge and seepage velocity, factors affecting Permeability		1	
	4	Determination of coefficient of permeability laboratory and field methods.		1	
	5	Permeability for stratified deposits, Drainage and Dewatering Methods		1	
	6	Numericals		2	

IV	1	Laplace equation, its derivation in Cartesian co-ordinate system, its application for the computation of discharge seepage	Soil Mechanics and Foundation Engineering - Dr. K. R Arora Soil Mechanics and Foundations – Prof. B. C. Punmia	1	Total Lectures for Unit IV: **8**
	2	Seepage pressure, Quick sand condition with numericals		1	
	3	Concepts flow net, method to draw flow nets, characteristics and use of flow net		1	
	4	Preliminary problem of discharge, estimation of discharge through homogenous earthen embankment		1	
	5	Design Terzaghi's criteria for graded filter, concept of piping and criteria of stability against piping		2	
	6	Numericals		2	
V	1	A physical concept of shear strength, Introduction of Mohr's stress diagram	Soil Mechanics and Foundation Engineering - Dr. K. R Arora Soil Mechanics and Foundations – Prof. B. C. Punmia	1	Total Lectures for Unit V: **7**
	2	Mohr's failure criteria, Mohr- Coulomb's theory and development of failure envelopes		1	
	3	Unconfined compression test, Laboratory measurement of shear strength for different drainage, conditions by direct shear test		1	
	4	Triaxial test for various drainage conditions Merits and demerits of various shear strength tests.		1	
	5	Concept of pore pressure coefficient shear characteristics of sand, NC and OC clays and partially saturated soil		1	
	6	Numericals		2	
VI	1	State of stress at a point, stress distribution in soil mass	Soil Mechanics and Foundation Engineering - Dr. K. R Arora Soil Mechanics and Foundations – Prof. B. C. Punmia	1	Total Lectures for Unit VI: **6**
	2	Boussinesq's theory and its applications, point load, uniformly loaded rectangular and circular area		1	
	3	New-mark's chart, its preparation and use, equivalent point load Compression of laterally confined soil, concept of consolidation spring analogy		1	
	4	Terzaghi's theory of one dimensional consolidation		1	
	5	Determination of Cv Cassagrande's method for determination of pre-consolidation pressure.		1	
	6	Numericals		1	
Total Lectures Required				**42**	

Department of Civil Engineering
Semester – VII (Session 2021-2022)
Subject: Geotechnical Engineering - II

SUBJECT TEACHER: Prof. P. V. Kolhe					
Unit No.	**Topic No.**	**Topic with detail course outlines**	**Text and References**	**No. of Periods Allotted**	**Remark**
I	1	Field exploration, objectives and methods of exploration	Soil Mechanics and Foundation Engineering - Dr. K. R Arora Soil Mechanics and Foundations – Prof. B. C. Punmia	1	Total Lectures for Unit I: **7**
	2	Planning of exploration programme soil boring, Introduction to methods of soil exploration		1	
	3	SPT test, field vane shear test		1	
	4	Geophysical methods, electrical resistivity and soil refraction methods		1	
	5	Soil log bore presentation and interpretation exploration data. Ground improvement techniques		1	
	6	Numericals		2	
II	1	Bearing capacity and concept of local and general shear failure	Soil Mechanics and Foundation Engineering - Dr. K. R Arora Soil Mechanics and Foundations – Prof. B. C. Punmia	1	Total Lectures for Unit II: **8**
	2	Terzaghi’s and Skempton’s Theory of BC		1	
	3	Meyerhof’s and BIS method for bearing capacity		1	
	4	Determination bearing capacity of granular soils based on SPT value		1	
	5	Plate load test, Static Cone Penetrometer (In Situ methods for bearing capacity)		1	
	6	Pressure meter test contact pressure distribution diagram below the base of footing, Concept of raft foundation and floating foundation		1	
	7	Numericals		2	
III	1	Earth pressure at rest, general & local Stages of plastic equilibrium, Rankine’s and coulomb’s theory of active and passive earth pressure on retaining wall	Soil Mechanics and Foundation Engineering - Dr. K. R Arora Soil Mechanics and Foundations – Prof. B. C. Punmia	1	Total Lectures for Unit III: **8**
	2	Influence of surcharge, water table, wall friction		1	
	3	Rebhann’s and Culmann’s simple graphical methods		1	
	4	Introduction to sheet pile and bulkhead and their classifications		1	
	5	(No design criteria) Cofferdam purpose, various types and their suitability.		1	
	6	Numericals		3	
IV	1	Classification of piles and their uses	Soil Mechanics and Foundation Engineering - Dr. K. R Arora Soil Mechanics and Foundations – Prof. B. C. Punmia	1	Total Lectures for Unit IV: **8**
	2	Static analysis along with numericals		2	
	3	Dynamic analysis along with numericals		2	
	4	Piles in group and their capacity, group efficiency, factors affecting group efficiency		1	
	5	Behaviour of group of pile in sandy and in clayey soil, pile load test, effect of pile cap		1	
	6	Criteria for spacing and depth of piles. IS design criterion for undereamed Pile in clay and sands		1	

V	1	Immediate, primary and secondary settlement for footing resting on homogenous isotropic, cohesive and cohesion less soils related to single footing, combined footing, & raft foundation etc	Soil Mechanics and Foundation Engineering - Dr. K. R Arora Soil Mechanics and Foundations – Prof. B. C. Punmia	1	Total Lectures for Unit V: **6**
	2	Concept of differential settlement factors and causes for differential settlement, BIS requirement for total as well as differential settlement		1	
	3	Proportioning of footing for uniform settlement		1	
	4	Computation of total and differential settlement of a single pile and group of piles in sandy and clayey soil.		1	
	5	Numericals		2	
VI	1	Component & their function, sinking of well, types of force system, and their computation	Soil Mechanics and Foundation Engineering - Dr. K. R Arora Soil Mechanics and Foundations – Prof. B. C. Punmia	1	Total Lectures for Unit VI: **7**
	2	Design criteria for various components of wells		1	
	3	Tilting and shifting, Bearing capacity of well as per BIS.		1	
	4	Stability analysis of infinite and finite slope, causes of failure of slopes		1	
	5	Stability analysis of infinite and finite slope in cohesive and non-cohesive soils		1	
	6	Numericals		2	
Total Lectures Required				**44**	

Department of Civil Engineering

Semester – VIII (Session 2021-2022)

Subject: Dam Engineering

SUBJECT TEACHER: Prof. S.A.Baitule

Unit No.	Topic No.	Topic with detail course outlines	Text and References	No. of Periods Allotted	Remark
I	1	Introduction to Dam Engineering : Different classification for dams	Sharma H.D : Concrete Dams, Metropolitan Book Co, Delhi Satyanarayanan : Construction, Planning & Equipment, Standard Pub.	1	Total Lectures for Unit I: **7**
	2	Relative advantages and disadvantages of various dam selection or types of dam		1	
	3	Investigation of dam sites		1	
	4	Engineering surveys, geological investigation, subsurface exploration programme		1	
	5	Economic height of dam		1	
	6	Construction machinary, material, money, inventory.		2	
II	1	Rockfill dam : Introduction		1	

	2	General characteristics	Sherard et al : Earth and Rockfill Dam, John Wiley, New York.	1	Total Lectures for Unit II:**6**
	3	Materials and testing of rockfill material		1	
	4	Foundation requirements of rockfill dam		1	
	5	Design consideration of rockfill dam		1	
	6	Rockfill placement,		1	
III	1	Arch dam :- components	Sharma H.D : Concrete Dams, Metropolitan Book Co, Delhi. USBR : Design of Gravity Dam.	1	Total Lectures for Unit III: **8**
	2	Types and methods for design of Arch dam		2	
	3	Buttress dam : components, types		1	
	4	Forces acting, Buttress spacing		1	
	5	Master curve for economic spacing		1	
	6	Preliminary design Solid Gravity dams : Analysis & Design of gravity dam.		2	
IV	1	Spillways: choice of types, crest gates	Sharma H.D : Concrete Dams, Metropolitan Book Co, Delhi. Varshney R.S. : Concrete Dam, Ox IBH, Mumbai.	2	Total Lectures for Unit IV: **7**
	2	Hydraulic design, comparison		1	
	3	Approach and tail channel, J.H.C. & tail water rating curve		1	
	4	Energy Dissipaters: types, components		1	
	5	Design of hydraulic jump type, basins		1	
	6	Ski-bucket type, roller bucket.		1	
V	1	Head Regulators : requirements, types	USBR : Design of Small Dams. Sharma H.D : Concrete Dams, Metropolitan Book Co, Delhi.	1	Total Lectures for Unit V: **7**
	2	Foundation treatment including uplift consideration		1	
	3	Bank connection, energy dissipation, hydraulic design of opening and barrel, ventilation, types of gates.		2	
	4	Approach Channel, case study for one on rock foundation and one on permeable foundation.		1	
	5	Model Studies: scales design principles, materials, scale effects for model of dams spillway		2	
VI	1	Instrumentation : In earth dam and solid gravity dams, piezo meters, settlement, gauges (surface monuments, base plate, cross arm)	Peurifoy R.L. : Construction, Planning and Equipments, McGraw Hill Book Co. Satyanarayanan : Construction, Planning & Equipment, Standard Pub.	1	Total Lectures for Unit VI: **7**
	2	Strain meters joint meters		1	
	3	Thermometers, stress meters, pore pressure cells, plumb-bob Seismograph		1	
	4	Water level gauges (description, object, location, working, installation of each		1	
	5	Increasing height of masonry and concrete dams		1	
	6	Strengthening, repairs and maintenance, leakage, evaporation controls. evaporation controls.		2	
Total Lectures Required				**44**	

Department of Civil Engg

Semester –VI (Session 2021-22)

Subject: Traffic Engg & management

SUBJECT TEACHER: Prof . M.S.Mahalle

Unit No.	Topic No.	Topic with detail course outlines	Text and References	No. of Periods Allotted	Remark
I	1	Road Characteristics – Road User Characteristics	L.R.KADIYALI NPTL	1	Total Lectures for Unit I: 6
	2	PIEV theory – vehicle – Performance Characteristics		1	
	3	– Fundamental of traffic flow – Urban Traffic problems in India		1	
	4	Integrated planning of town, country, regional and all urban infrastructur		1	
	5	towards sustainable approach – Land use & transport and model integration		2	
II	1	Traffic surveys – Speed, Journey time and delay surveys	L.R.KADIYALI NPTL	1	Total Lectures for Unit II: 6
	2	vehicles volume survey including non-motarized transpor		1	
	3	methods and interpretation – origin destination survey		1	
	4	accident analyses methods		1	
	5	interpretation and presentation		1	
	6	–level of service		1	
		Intersection Design – channelization	L.R.KADIYALI		

III	1		NPTL	1	Total Lectures for Unit III: 6
	2	Rotary intersection design		1	
	3	signal design – coordination of signals , grade separation		1	
	4	traffic signs including VMS and road markings		1	
	5	significant roles of traffic control personnel –		1	
	6	networking pedestrian facilities & cycle tracks		1	
IV	1	Road Accident – Causes, effects, prevention	L.R.KADIYALI NPTL	1	Total Lectures for Unit IV: 7
	2	street lighting		1	
	3	– traffic and environment hazards		1	
	4	air and noise pollution		1	
	5	, causes, abatement measures		1	
	6	promotion and integration of public transportatio		1	
	7	– Promotion of non-motorized transport		1	
V	1	Area Traffic management system	L.R.KADIYALI NPTL	1	Total Lectures for Unit V: 7
	2	– traffic system management (TSM) with IRC standards		1	
	3	Traffic Regulatory Measures		1	
	4	Travel Demand Management (TDM)		1	
	5	congestion and parking pricing		1	
	6	all segregation methods		1	
	7	coordination among different agencies		1	
VI	1	Intelligent transport system	L.R.KADIYALI NPTL	1	Total Lectures for Unit06
	2	Intelligent transport system for traffic management		2	
	3	enforcement and education		1	

	4	Application of ITS to Traffic Management System		**2**	V: 06
			Total Lectures Required	**38**	

Department of Civil Engineering					
Semester – VII (Session 2021-2022) Section C					
Subject: Design of Steel Structure (7CE03)					
SUBJECT TEACHER: Prof. S. R. Bhuskade					
Unit No.	**Topic No.**	**Topic with detail course outlines**	**Text and References**	**No. of Periods Allotted**	**Remark**
I	**1**	Basic Introduction	Duggal, S. K., Design of Steel Structures, Tata McGraw Hill Pub. Company Ltd. N. Subrramanyam, Design of Steel Structures, Oxford University Press, 2008. Shah & Karve, Design of steel structures. Sheyakar, Design of steel structure. Bhavikatti, Design of steel structure	1	Total Lectures for Unit I: 11
	2	Introduction To LSM & WSM		1	
	3	Introduction To Plastic Analyasis		2	
	4	Design of Bolted Connection		4	
	5	Design of Welded Connection		3	
II	**1**	Design of Tension Member	Duggal, S. K., Design of Steel Structures, Tata McGraw Hill Pub. Company Ltd. N. Subrramanyam, Design of Steel Structures, Oxford University Press, 2008. Shah & Karve, Design of steel structures. Sheyakar, Design of steel structure. Bhavikatti, Design of steel structure	4	Total Lectures for Unit II: 11
	2	Design of Compression Member		3	
	3	Design of Industrial shed		4	
III	**1**	Design of simple Column	Duggal, S. K., Design of Steel Structures, Tata McGraw Hill Pub. Company Ltd. N. Subrramanyam, Design of Steel Structures, Oxford University Press, 2008. Shah & Karve, Design of steel structures. Sheyakar, Design of steel structure. Bhavikatti, Design of steel structure	2	Total Lectures for Unit III: 10
	2	Design of compound Column		3	
	3	Design of column bases subjected to axial load & moment, gusseted base.		2	
	4	Design of column bases subjected to axial load & moment, solid slab base.		3	
IV	**1**	Design of Simple Beam	Duggal, S. K., Design of Steel Structures, Tata McGraw Hill Pub. Company Ltd. N. Subrramanyam, Design of Steel Structures, Oxford University Press, 2008. Shah & Karve, Design of steel structures. Sheyakar, Design of steel structure. Bhavikatti, Design of steel structure	3	Total Lectures for Unit IV: 10
	2	Design of Compound Beam		3	
			Total Lectures Required	**42**	

Department of Civil Engineering					
Semester – VI (Session 2021-2022) Section C					
Subject: Design of Steel Structure (6CE01)					
SUBJECT TEACHER: Prof. S. R. Bhuskade					
Unit No.	**Topic No.**	**Topic with detail course outlines**	**Text and References**	**No. of Periods Allotted**	**Remark**
I	**1**	Basic Introduction	Duggal, S. K., Design of Steel Structures, Tata McGraw Hill Pub. Company Ltd. N. Subrramanyam, Design of Steel Structures, Oxford University Press, 2008. Shah & Karve, Design of steel structures. Sheyakar, Design of steel structure. Bhavikatti, Design of steel structure	1	Total Lectures for Unit I: 11
	2	Introduction To LSM & WSM		1	
	3	Introduction To Plastic Analyasis		2	
	4	Design of Bolted Connection		4	
	5	Design of Welded Connection		3	
II	**1**	Design of Tension Member	Duggal, S. K., Design of Steel Structures, Tata McGraw Hill Pub. Company Ltd. N. Subrramanyam, Design of Steel Structures, Oxford University Press, 2008. Shah & Karve, Design of steel structures. Sheyakar, Design of steel structure. Bhavikatti, Design of steel structure	4	Total Lectures for Unit II: 11
	2	Design of Compression Member		3	
	3	Design of Industrial shed		4	
III	**1**	Design of simple Column	Duggal, S. K., Design of Steel Structures, Tata McGraw Hill Pub. Company Ltd. N. Subrramanyam, Design of Steel Structures, Oxford University Press, 2008. Shah & Karve, Design of steel structures. Sheyakar, Design of steel structure. Bhavikatti, Design of steel structure	2	Total Lectures for Unit III: 10
	2	Design of compound Column		3	
	3	Design of column bases subjected to axial load & moment, gusseted base.		2	
	4	Design of column bases subjected to axial load & moment, solid slab base.		3	
IV	**1**	Design of Simple Beam	Duggal, S. K., Design of Steel Structures, Tata McGraw Hill Pub. Company Ltd. N. Subrramanyam, Design of Steel Structures, Oxford University Press, 2008. Shah & Karve, Design of steel structures. Sheyakar, Design of steel structure. Bhavikatti, Design of steel structure	3	Total Lectures for Unit IV: 10
	2	Design of Compound Beam		3	
			Total Lectures Required	**42**	

Department of Civil Engineering					
Semester – III (Session 2021-2022)					
Subject: CTRCC					
SUBJECT TEACHER: Prof. S.D.Malkkhede					
Unit No.	**Topic No.**	**Topic with detail course outlines**	**Text and References**	**No. of Periods Allotted**	**Remark**
	1	Introduction, Syllabus		1	

I	2	Cement Manufacturing process.	Concrete technology by MS shetty	1	Total Lectures for Unit I: 6
	3	Wet & Dry process		1	
	4	Properties of fresh concrete:		2	
	5	Mixing, centering & formwork, placing, compaction and curing of concrete		1	
II	1	Properties of hardened concrete:,	Concrete technology by MS shetty	1	Total Lectures for Unit II: 8
	2	Grades of concrete		1	
	2	Properties of concrete,		1	
	3	Elasticity, creep, shrinkage.		1	
	4	Durability of concrete, laboratory tests on concrete		1	
	5	Durability of concrete, laboratory tests on concrete		1	
	6	Durability of concrete, laboratory tests on concrete		2	
III	1	Pozzolana and Admixtures	Concrete technology by MS shetty	1	Total Lectures for Unit III: 8
	2	Plasticizer, retarders		1	
	3	Accelerators, water proofing agents,		1	
	4	Mineral admixtures, IS code provisions.		1	
	5	Concreting techniques: Guniting, grouting and shotcreting concrete, introduction & application of Ferrocement.		1	
	6	Concrete curing compounds		1	
	7	Bond aid for plastering,		2	
IV	1	Special concrete	Concrete technology by MS shetty	1	Total Lectures for Unit IV: 8
	2	Light weight concrete		2	
	3	Fibre reinforced concrete		1	
	4	Roller compacted concrete, selfcompacted concrete,		1	
	5	Concreting techniques: Guniting		1	
	6	Grouting and shotcreting concrete, introduction & application of Ferrocement.		2	
V	1	Introduction of mix design,	Concrete technology by MS shetty	1	Total Lectures for Unit V: 6
	2	Factors governing mix design		1	
	3	IS code method of mix design (IS:10262 – 1982) and ACI method.		2	
	4	IS code method of mix design (IS:10262 – 1982) and ACI method.		2	
VI	1	Basic elastic theory and concept of reinforced concrete,	Concrete technology by MS shetty	1	Total Lectures for Unit VI: 8
	2	Types of reinforcement,		2	
	3	Analysis of rectangular sections by working stress method		1	
	4	Modes of failure		1	
	5	Design of singly reinforced beams		1	
	6	One-way slabs		2	
			Total Lectures Required	**42**	

Department of Civil Engineering					
Semester – VII (Session 2021-2022)					
Subject: 4CE05 - STRUCTURAL ANALYSIS- I					
SUBJECT TEACHER: Dr. N. P. Kataria					
Unit No.	**Topic No.**	**Topic with detail course outlines**	**Text and References**	**No. of Periods Allotted**	**Remark**

I	1	Classification of Structures, Concept of statically indeterminate Structures, Analysis of fixed beam and propped cantilever, Rotation and sinking of support.	Structural Analysis (Volume I,II) S.S. Bhavikatti, Theory of Structure (Volume I, II) S. Ramamuttam	4	Total Lectures for Unit I: 8
	2	Analysis of Continuous beam by theorem of three moments, sinking of support.		4	
II	1	Castigliano's theorem I, Unit load method, slope and deflection in determinate beams and portals.	Structural Analysis (Volume I,II) S.S. Bhavikatti, Theory of Structure (Volume I, II) S. Ramamuttam	4	Total Lectures for Unit II: 8
	2	Deflection in determinate trusses.		4	
III	1	Influence line diagrams for reactions, bending moment and shear force for determinate beams.	Structural Analysis (Volume I,II) S.S. Bhavikatti, Theory of Structure (Volume I, II) S. Ramamuttam	4	Total Lectures for Unit III: 8
	2	Rolling loads on simply supported beams concentrated and uniformly distributed loads, maximum shear force and bending moment, focal length.		4	
IV	1	Analysis of Cables Suspension Bridge under Concentrated Load and UDL for Cables over pulleys and Cable provided with saddles.	Structural Analysis (Volume I,II) S.S. Bhavikatti, Theory of Structure (Volume I, II) S. Ramamuttam	4	Total Lectures for Unit IV: 8
	2	Two & Three hinged arches subjected to static loads, Bending moment, radial shear and axial thrust.		4	
V	1	Slope deflection method: Analysis of continuous beams with and without sinking of support.	Structural Analysis (Volume I,II) S.S. Bhavikatti, Theory of Structure (Volume I, II) S. Ramamuttam	4	Total Lectures for Unit V: 8
	2	Slope deflection method: Analysis of portal frames without side sway.		4	
VI	1	Moment Distribution method: Analysis of continuous beams with and without sinking of support.	Structural Analysis (Volume I,II) S.S. Bhavikatti, Theory of Structure (Volume I, II) S. Ramamuttam	4	Total Lectures for Unit VI: 8
	2	Moment Distribution method:Analysis of portal frames without side sway.		4	
			Total Lectures Required	**48**	

Department of Civil Engineering
Semester – V (Session 2021-2022)
Subject: 5CE03: Numerical Methods and Computer Programming

SUBJECT TEACHER: Dr. N. P. Kataria

Unit No.	Topic No.	Topic with detail course outlines	Text and References	No. of Periods Allotted	Remark
I	1	Spreadsheet software basics, Expressions, Mathematical Functions, Conditional Execution Functions like IF, COUNT, COUNTIF, SUM, SUMIF, AVERAGE, AVERAGEIF, LOOKUP, HLOOKUP. Application to the Civil Engineering Problems.	1..E Balagurusamy, Programming in ANSI C 2.Yashavant P. Kanetkar, Let Us C	6	Total Lectures for Unit I: 6
II	1	Basic structure of C program, use of library functions, input output statements, flowchart.	1..E Balagurusamy, Programming in ANSI C 2.Yashavant P. Kanetkar, Let Us C	3	Total Lectures for Unit II: 6
	2	Decision Control structures and loop Control structures conditional loop and unconditional loop: WHILE, DOWHILE, FOR, IF, IFELSE, NESTEDIF, LADDER IFELSE etc.		3	
III	1	Type casting, single dimensional and multi-dimensional array, subscripted variables	1..E Balagurusamy, Programming in ANSI C 2.Yashavant P. Kanetkar, Let Us C	3	Total Lectures for Unit III: 6
	2	Functions in C		3	
IV	1	Computer Programming using C: Matrix operations such as: a. Addition and subtraction b. Multiplication c. Transpose d. Testing summary etc.	1..E Balagurusamy, Programming in ANSI C 2.Yashavant P. Kanetkar, Let Us C	3	Total Lectures for Unit IV: 6
	2	Fourth order, Runge - Kutta method for solution of first order, second order differential equations and two simultaneous equations.		3	
V	1	Solution of quadratic equation, Numerical integral using Trapezoidal and Simpson rule	1..E Balagurusamy, Programming in ANSI C 2.Yashavant P. Kanetkar, Let Us C	3	Total Lectures for Unit V: 6
	2	Finding root of equation f (x) = 0 by Newton – Raphson , Regula -Falsi and Bisection method.		3	

VI	1	1. Centre of gravity, moment of inertia & radius of gyration of Tee section. 2. Bending moment and shear force ordinates for simply supported beam subjected to point and uniformly distributed load only. 3. Design of singly reinforced beam by limit state method. 4. Determination of coefficient of permeability in parallel and perpendicular direction of bedding plane 5. Reduce level by height of instrument method. 6. Determination of Chezy's constant.	1..E Balagurusamy, Programming in ANSI C 2.Yashavant P. Kanetkar, Let Us C	6	Total Lectures for Unit VI: 6
			Total Lectures Required	**36**	

Department of Civil Engineering					
Semester – IV (Session 2021-2022)					
Subject: Surveying					
SUBJECT TEACHER: Prof. S.D.Malkkhede					
Unit No.	**Topic No.**	**Topic with detail course outlines**	**Text and References**	**No. of Periods Allotted**	**Remark**
I	1	Introduction: Geo-informatics- definition, disciplines covered, importance. Field Surveying Methods	**B.C. Punmia : Surveying I & II.**	1	Total Lectures for Unit I: 6
	2	Definition & objectives; concept of Geoids and reference spheroids, coordinate systems, plane and geodetic surveys		1	
	3	Location of a point- classification of surveys; principles of surveying Errors in measurements		1	
	4	Sources, types of errors and their treatment		1	
	5	Random error distribution, accuracy, precision and uncertainty. Surveying instruments temporary and permanent adjustment concept, principle of reversal. Maps- types, importance, scales/CI		1	
	6	Conventional symbols, and generalization; topographic maps projection systems, sheet numbering systems, map layout.		1	
II	1	Direct and indirect methods	**B.C. Punmia : Surveying I & II.**	1	Total Lectures for Unit II: 6
	2	Chain and tape measurement		1	
	3	Corrections to tape measurements		1	
	4	Optical methods- tachometers, sub tense bar;		1	
	5	Optical methods- tachometers, sub tense bar;		1	
	6	Electronic methods- EDMs, total stations		1	
III	1	Various terms; Methods of height determination; Spirit leveling.	. **B.C. Punmia : Surveying I & II.**	1	Total Lectures for Unit III: 6
	2	Different types of levels and staves;		1	
	3	Booking and reduction of data		1	
	4	Classification and permissible closing error;		1	
	5	Profile leveling and cross sectioning		1	
	6	Curvature & refraction and collimation errors; reciprocal leveling		1	
IV	1	Bearings and angles	**B.C. Punmia : Surveying I & II..**	1	Total Lectures for Unit IV: 6
	2	Compass surveying		1	
	3	Magnetic bearings		1	
	4	Declination		1	
	5	Local attraction errors and adjustments.		1	
	6	Local attraction errors and adjustments.		1	

V	1	Purpose and classification of each; Compass and theodolite traversesx, , omitted measurements.	**B.C. Punmia : Surveying I & II.**	1	Total Lectures for Unit V: 6
	2	Local attraction errors and adjustments.		1	
	3	Methods of observation and booking of data,		1	
	4	Methods of observation and booking of data,		1	
	5	Balancing of traverses, computation of coordinates		1	
	6	Gale's traverse table		1	
VI	1	Merits and demerits, accessories;	**B.C. Punmia : Surveying I & II..**	1	Total Lectures for Unit VI: 6
	2	Orientation and resection		1	
	3	Methods of plane tabling;		1	
	4	Methods of plane tabling		1	
	5	Engineering project surveys requirements		1	
	6	Engineering project surveys requirements		1	
			Total Lectures Required	**36**	

Department of Civil Engineering

Semester – IV (Session 2021-2022)

Subject: Geotechnical Engineering - I

SUBJECT TEACHER: Prof. R. V. Langote

Unit No.	Topic No.	Topic with detail course outlines	Text and References	No. of Periods Allotted	Remark
I	1	History of development of soil mechanics, formation of soil, its significance to the field problems	Soil Mechanics and Foundation Engineering - Dr. K. R Arora Soil Mechanics and Foundations – Prof. B. C. Punmia	1	Total Lectures for Unit I: **8**
	2	Soil properties and its classification		1	
	3	Definition of soil, soil as a three phase system, weight – volume relationship		1	
	4	Index properties of coarse and fine grained soil		1	
	5	BIS classification of fine grained & coarse grained soil		1	
	6	Numericals		3	
II	1	Concept of clay mineral, major soil minerals, their structural formation and properties	Soil Mechanics and Foundation Engineering - Dr. K. R Arora Soil Mechanics and Foundations – Prof. B. C. Punmia	1	Total Lectures for Unit II: **6**
	2	Mechanics of compaction, factors affecting compaction, different structures of soil		1	
	3	Standard and modified Proctor test, their field Determination, zero air void line, concept of wet of optimum, and dry of optimum		1	
	4	Field compaction & their control. CBR test and CBR value for soak and unsoaked conditions.		1	
	5	Numericals		2	
III	1	Concept of absorbed water, surface tension	Soil Mechanics and Foundation Engineering - Dr. K. R Arora Soil Mechanics and Foundations – Prof. B. C. Punmia	1	Total Lectures for Unit III: **7**
	2	Capillarity and its effect on Soil properties permeability of soil		1	
	3	Darcy's law and validity, Discharge and seepage velocity, factors affecting Permeability		1	
	4	Determination of coefficient of permeability laboratory and field methods.		1	

	5	Permeability for stratified deposits, Drainage and Dewatering Methods		1	
	6	Numericals		2	
IV	1	Laplace equation, its derivation in Cartesian co-ordinate system, its application for the computation of discharge seepage	Soil Mechanics and Foundation Engineering - Dr. K. R Arora Soil Mechanics and Foundations – Prof. B. C. Punmia	1	Total Lectures for Unit IV: **8**
	2	Seepage pressure, Quick sand condition with numericals		1	
	3	Concepts flow net, method to draw flow nets, characteristics and use of flow net		1	
	4	Preliminary problem of discharge, estimation of discharge through homogenous earthen embankment		1	
	5	Design Terzaghi's criteria for graded filter, concept of piping and criteria of stability against piping		2	
	6	Numericals		2	
V	1	A physical concept of shear strength, Introduction of Mohr's stress diagram	Soil Mechanics and Foundation Engineering - Dr. K. R Arora Soil Mechanics and Foundations – Prof. B. C. Punmia	1	Total Lectures for Unit V: **7**
	2	Mohr's failure criteria, Mohr- Coulomb's theory and development of failure envelopes		1	
	3	Unconfined compression test, Laboratory measurement of shear strength for different drainage, conditions by direct shear test		1	
	4	Triaxial test for various drainage conditions Merits and demerits of various shear strength tests.		1	
	5	Concept of pore pressure coefficient shear characteristics of sand, NC and OC clays and partially saturated soil		1	
	6	Numericals		2	
VI	1	State of stress at a point, stress distribution in soil mass	Soil Mechanics and Foundation Engineering - Dr. K. R Arora Soil Mechanics and Foundations – Prof. B. C. Punmia	1	Total Lectures for Unit VI: **6**
	2	Boussinesq's theory and its applications, point load, uniformly loaded rectangular and circular area		1	
	3	New-mark's chart, its preparation and use, equivalent point load Compression of laterally confined soil, concept of consolidation spring analogy		1	
	4	Terzaghi's theory of one dimensional consolidation		1	
	5	Determination of Cv Cassagrande's method for determination of pre-consolidation pressure.		1	
	6	Numericals		1	
Total Lectures Required				**42**	

IV Year

Prof. Ram Meghe Institute of Technology & Research, Badnera
Department of Information Technology
Lesson Plan (Session 2021-22)

Course Number and Title: - Real Time Embedded System (7IT04)
Name of Faculty: - Prof. A. A. Gulhane
Semester: -VII **Section**: - A

Lecture No.	Planned Dates	Topic Name	Total hours
		Unit-1	
1	12-08-2021	Discussion on Vision, Mission, CLO, PEO, Syllabus, Graduate Attributes, Objective of Subject	
2	13-08-2021	Introduction to embedded systems	9
3	17-08-2021	Processor in the system, types of processor	
4	20-08-2021	Hardware units required in the exemplary cases	
5	23-08-2021	Software embedded into a system. Final Machine implement able software for a product	
6	24-08-2021	Software in Processor specific assembly language and high level language	
7	26-08-2021	Device drivers device management using an operating systems	
8	27-08-2021	Software design for scheduling multiple tasks and devices using RTOS	
9	30-08-2021	Embedded SoC and in VLSI circuits.	
		Unit-2	
10	31-08-2021	Structural units of the processor	8
11	02-09-2021	Allocation of memory to program segment and blocks	
12	03-09-2021	Memory map of the system	
13	06-09-2021	Memory blocks for different data sets and structures	
14	09-09-2021	Serial communication using I2C, CAN and advanced I/O buses between the networked multiple devices	
15	14-09-2021	Device drivers, Virtual Devices,	
16	16-09-2021	Device drivers for parallel port, serial and timing devices	
17	17-09-2021	Context and periods for context switching, deadline and interrupt latency	

Lecture No.	Planned Dates	Topic Name	Total hours
		Unit-3	
18	20-09-2021	Software programming in assembly language and C	8
19	21-09-2021	Program Elements: Use of data structures Queues, Stacks, Lists and Trees	
20	23-09-2021	Use of data structures Function pointers, Function queues and ISR queues	
21	24-09-2021	Queues for implementing protocol for a network, Queuing of functions on interrupts	
22	27-09-2021	Use of FIPO queues, Stacks,	
23	28-09-2021	Lists and Ordered Lists	
24	30-09-2021	Embedded Programming in C++	
25	01-10-2021	Embedded Programming in Java	
		Unit-4	
26	04-10-2021	Modeling process, Use of dataflow & control data flow graphs,	7
27	05-10-2021	Programming model for event controlled or response time constraint, Real time programs,	
28	07-10-2021	use of finite states machine model	
29	08-10-2021	finite states machine model-timer, c function	
30	11-10-2021	Petri net Model	
31	12-10-2021	Modeling of Multiprocessor systems	
32	14-10-2021	IPC and Synchronization: Multiple processes in an application: Process, Tasks, Threads, Sharing data by multiple tasks	
		Unit-5	
33	18-10-2021	Use of Semaphores for a task or for Critical section of code,	8
34	21-10-2021	Mutex & P & V semaphores	
35	22-10-2021	Priority inversion problems & Deadlock situations	
36	25-10-2021	IPC issues: Use of signals, Use of Semaphore flags	
37	26-10-2021	Use of Mutex as resource key,	
38	28-10-2021	Use of message queues,	
39	29-10-2021	Mailboxes, pipes,	
40	08-11-2021	Virtual sockets, RPCs	

Unit-6			
41	09-11-2021	Introduction to RTOS, OS Services, RTOS Services,	9
42	11-11-2021	Schedule management for multiple tasks in Real Time, Handling of interrupt source call	
43	12-11-2021	RTOS task scheduling models, Cooperative Round Robin Scheduling using a Circular Queue of ready tasks	
44	15-11-2021	Using an Ordered list as per precedence constraints, Cycling scheduling in Time Slicing	
45	16-11-2021	Preemptive scheduling, Critical section service by preemptive scheduler,	
46	18-11-2021	Fixed Real Time scheduling, Precedence assignment in Scheduling algorithms.	
47	22-11-2021	Performance metrics, IEEE Standard POSIX 1003.1B,	
48	23-11-2021	Fifteen-point' strategy for Synchronization,	
49	25-11-2021	Embedded Linux Kernel	
50	26-11-2021	IC Technology	**Content beyond Syllabus**
51	29-11-2021	Issues in Design Technology	

Faculty: - Prof. A. A. Gulhane

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Prof. Ram Meghe Institute of Technology & Research, Badnera
Department of Information Technology
Teaching Plan: Session 2021-22

Course Name & Code: Analog & Digital Electronics [3IT05]
Name of Faculty: Prof. Avinash G. Mahalle
Year & Semester: Second Year III [A]

Lecture No.	Planned Dates	Topics to be covered	Total Hours
1	14-09-2021	Vision & Mission of Institute, Vision & Mission of Dept. PEOs, POs and PSOs, CLOs and COs, Grading Scheme, Text Books & Reference Books, Syllabus	01
		UNIT-1	
2	15-09-2021	Semiconductor Basics	09
3	16-09-2021	Transistors Basics	
4	18-09-2021	Transistor as an Amplifier	
5	21-09-2021	Faithful amplification of CE amplifier	
6	22-09-2021	Need of Transistor Biasing	
7	23-09-2021	Potential Divider Bias Circuit	
8	25-09-2021	Transistor as an Electronic Switch,	
9	27-09-2021	Field Effect Transistor, Difference between BJT & FET	
10	29-09-2021	Construction and working of JFET	
		UNIT-2	
11	30-09-2021	Basics of Operational Amplifier	09
12	04-10-2021	Block diagram of operational amplifier	
13	07-10-2021	Ideal operational amplifier parameters	
14	11-10-2021	Inverting Amplifier	
15	13-10-2021	Non-Inverting Amplifier, Voltage follower	
16	14-10-2021	Solved Problems on inverting & non-inverting amplifiers	
17	16-10-2021	Summing Amplifier	
18	18-10-2021	Subtractor	
19	20-10-2021	Comparator	
		UNIT-3	
20	21-10-2021	Basics of Oscillator	08
21	23-10-2021	Barkhausen Criterion	
22	25-10-2021	RC Phase Shift Oscillator	
23	27-10-2021	Transistor Crystal Oscillator	
24	28-10-2021	Block diagram of Timer IC 555	
25	30-10-2021	Astable Multivibrator	
26	08-11-2021	Monostable Multivibrator	
27	15-11-2021	Solved Problems	

Lecture No.	Planned Dates	Topic to be covered	Total Hours
		UNIT-4	
28	17-11-2021	Various Logic Gates and their truth tables	09
29	18-11-2021	Standard logic expression forms: SOP & POS	
30	20-11-2021	Logic expression realization & minimization using K-map	
31	22-11-2021	Two variable K-map	
32	24-11-2021	Three variable K-map	
33	25-11-2021	Four variable K-map	
34	27-11-2021	Solved problems on K-map	
35	29-11-2021	Half Adder, Full Adder	
36	01-12-2021	Half subtractor, Full subtractor	
		UNIT-5	
37	02-12-2021	Difference between Combinational and Sequential circuits	08
38	04-12-2021	Code convertors (BCD, Excess-3 and Gray)	
39	06-12-2021	Multiplexers	
40	08-12-2021	De-multiplexers	
41	09-12-2021	Decoders	
42	11-12-2021	SR flip-flop	
43	13-12-2021	JK flip-flop	
44	15-12-2021	D flip-flop & T flip-flop	
		UNIT-6	
45	16-12-2021	Difference between Asynchronous and Synchronous sequential circuits	08
46	18-12-2021	Asynchronous Counters	
47	20-12-2021	Up-Counter	
48	22-12-2021	Down-Counter	
49	23-12-2021	Mod Counter	
50	27-12-2021	Working of Shift Registers, SISO	
51	29-12-2021	SIPO, PISO and PIPO	
52	30-12-2021	Application of Shift Register as a Ring Counter	
53	01-01-2022	Difficulty Session-I	02
54	03-01-2022	Difficulty Session-II	
		Total Lectures Planned	54

Prof. A. G. Mahalle

Dr. P. V. Ingole
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Prof. Ram Meghe Institute of Technology & Research, Badnera

Department of Information Technology

Session:2018-19

Course Number and Title: - Discrete Structure & Graph Theory (3IT02)

Name of Faculty: -Dr. A. S. Alvi Semester:-III[rd] Sem

Lecture No.	Planned Dates	Topic Name	Total hours
		Unit-1	
1	15-Sep-2021	Statements & Notation	10
2	16-Sep-2021	Connectives	
3	17-Sep-2021	Normal forms	
4	20-Sep-2021	Equivalences	
5	22-Sep-2021	Principal of DNF	
6	23-Sep-2021	Principal of CNF &	
7	24-Sep-2021	Inference Rule	
8	27-Sep-2021	The theory of inference for the statement calculus	
9	29-Sep-2021	Predicate calculus and Problems	
10	30-Sep-2021	The Theory of the Predicate calculus	
		Unit-II	
11	01-Oct-2021	Basic concepts of Set Theory	7
12	04-Oct-2021	Representation of Discrete Structure	
13	06-Oct-2021	Relation	
14	07-Oct-2021	Ordering of Set	
15	08-Oct-2021	Functions , Recursion	
16	11-Oct-2021	Recursive function.	
17	13-Oct-2021	Sets & Predicates	
		Unit-III	
18	14-Oct-2021	Algebraic Systems	7
19	18-Oct-2021	Semi groups	
20	20-Oct-2021	Monoids	
21	21-Oct-2021	Grammars& Languages	
22	22-Oct-2021	Polish expression	
23	25-Oct-2021	Polish expression & their compilation	
24	27-Oct-2021	Application of Residue Arithmetic to Computers.	

		Unit-IV	
25	28-Oct-2021	Lattices	8
26	29-Oct-2021	Partially ordered sets	
27	08-Nov-2021	Lattices as an Algebraic system	
28	10-Nov-2021	Boolean Algebra	
29	11-Nov-2021	Boolean Functions	
30	12-Nov-2021	Representation of Boolean Functions	
31	15-Nov-2021	Minimization of Boolean Functions	
32	17-Nov-2021	Minimization of Boolean Functions cont…	
		Unit -V	
33	18-Nov-2021	Graph Theory Basic concepts	8
34	22-Nov-2021	Graph Theory Paths	
35	24-Nov-2021	Reachability	
36	25-Nov-2021	Connectedness.	
37	26-Nov-2021	Matrix representation of graphs	
38	29-Nov-2021	Matrix representation of graphs cont…	
39	01-Dec-2021	Storage Representation and Manipulation of graph	
40	02-Dec-2021	Coloring of Graphs	
		Unit-VI	
41	03-Dec-2021	Basic concepts of Tree	8
42	06-Dec-2021	Tree Searching	
43	08-Dec-2021	Minimal spanning trees	
44	09-Dec-2021	Grammars, rooted tree	
45	10-Dec-2021	Expression tree, B tree	
46	13-Dec-2021	Distance between spanning trees of a graph	
47	15-Dec-2021	PERT and Related Techniques.	
48	16-Dec-2021	PERT and Related Techniques cont..	
49	17-Dec-2021		Content beyond Syllabus
50	20-Dec-2021		
51	22-Dec-2021		

Dr A S Alvi

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Prof. Ram Meghe Institute of Technology & Research, Badnera
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(Session 2021 - 2022)

Course Number and Title: - Assembly Language Programming(3IT04)
Name of Faculty: - Prof. A. S. Mahalle
Semester :- III **Section :-** A

Lecture No.	Planned Date	Topic Name	Total hours
		Unit-1	
1	14/09/2021	Introduction to Number system(Decimal, Binary, Hexadecimal)	9
2	16/09/2021	Microprocessor 8086 architecture-BIU and EU	
3	18/09/2021	pin configuration of 8086	
4	20/09/2021	pin configuration of 8086	
5	21/09/2021	Software model of 8086,	
6	23/09/2021	Memory addresses space and data organization,	
7	25/09/2021	Data types, Segment registers, memory segmentation	
8	27/09/2021	IP & Data registers, Pointer, Index registers	
9	28/09/2021	Memory addresses generation, Maximum and Minimum Modes.	
		Unit-2	
10	30/09/2021	8086 Instruction set overview	8
11	04/10/2021	Addressing modes	
12	05/10/2021	8086 instruction formats	
12	07/10/2021	8086 programming: Integer instructions and computations	
14	09/10/2021	Data transfer instructions	
15	11/10/2021	Arithmetic instructions and their use in 8086 programming	
16	12/10/2021	Arithmetic instructions and their use in 8086 programming	
17	14/10/2021	**Revision Unit 2**	
		Unit-3	
18	16/10/2021	8086 instructions: logical instructions	8
19	18/10/2021	Shift and rotate instructions and their use in 8086 programming.	
20	21/10/2021	8086 flag register and Flag control instructions	
21	23/10/2021	Compare instructions, control flow and jump instructions	
22	25/10/2021	Loops & loop handling instructions	
23	26/10/2021	8086 programming using these instructions	
24	28/10/2021	8086 programming using these instructions	

25	30/10/2021	**Revision Unit 3**	
		Unit-4	
26	15/11/2021	Stack and Subroutines	9
27	16/11/2021	8086 stack segment and stack related instructions	
28	18/11/2021	8086 I/O Address space	
29	20/11/2021	Subroutines and related instructions	
31	22/11/2021	Parameter passing, Concept of Macros	
32	23/11/2021	Concept of recursion at assembly Program level	
33	25/11/2021	8086 programming using subroutines	
34	27/11/2021	Recursion and macros.	
35	29/11/2021	**Revision Unit 4**	
		Unit-5	
36	30/11/2021	8086 I/O: Types of input output	8
37	02/12/2021	Isolated I/O interface	
38	09/12/2021	Input output data transfers	
39	11/12/2021	I/O instructions and bus cycles	
40	13/12/2021	Programmable Peripheral Interface 8255 PPI	
41	14/12/2021	pin diagram	
42	16/12/2021	Internal organization	
43	18/12/2021	modes of operation, **Revision Unit V**	
		Unit-6	
44	20/12/2021	8086 Interrupts Mechanism	8
45	21/12/2021	Priority and types.	
46	23/12/2021	Interrupt vector table, Interrupt Instructions	
47	27/12/2021	External hardware-interrupt interface signals & interrupts sequence	
48	28/12/2021	PIC 8259: Block & pin diagram	
49	30/12/2021	Internal architecture	
50	01/01/2022	Software interrupts, Non-maskable interrupts	
51	03/01/2022	Internal Interrupt functions	
52	04/01/2022	8288 Bus Controller	Content Beyond Syllabus
53	06/01/2022	Programmable Timer 8253	
54	08/01/2022	Gate Questionnaire	

Faculty: - A. S. Mahalle

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Prof. Ram Meghe Institute of Technology & Research, Badnera
Department of Information Technology
Teaching Plan (Session 2021-22)

Course Number and Title: - Software Engineering (5IT03)
Name of Faculty: - Prof. A. W. Burange
Semester: - V
Section :- A

Sr No.	Planned Date	Topic Name	Total hours
		UNIT-I	
1	17/08/21	Evolving role of Software.	9
2	18/08/21	Software crises & myths	
3	23/08/21	Software engineering introduction.	
4	24/08/21	Software process & process models	
5	25/08/21	Linear sequential, Prescriptive models, prototyping	
6	26/08/21	Waterfall model, Limitations of Waterfall model	
7	30/08/21	Incremental model, Evolutionary Product & Process	
8	31/08/21	Project management concepts: People, Product, Process, Project	
9	01/09/21	W5HH principles, critical practice.	
		UNIT-II	
10	02/09/21	Measures, Metrics & Indicators	9
11	06/09/21	Metrics in process & project domains-software	
12	07/09/21	software measurement, Metrics for software quality	
13	08/09/21	small organization	
14	09/09/21	Software projects Planning	
15	14/09/21	Scope, resources, estimation	
16	15/09/21	decomposition technique, Tools.	
17	16/09/21	Software risks : identification, risk projection	
18	20/09/21	Refinement & RMMM plan.	
		UNIT III	
19	21/09/21	Project Scheduling	9
20	22/09/21	Concepts. People Efforts	
21	23/09/21	Task set, Task network	
22	27/09/21	Scheduling. EV analysis, Project Plan	
23	28/09/21	Software quality concepts	
24	29/09/21	SQ Assurance, Software reviews, technical reviews	
25	30/09/21	Software reliability, ISO 900 L	
26	11/10/21	SCM process. Version control	
27	12/10/21	SQA Plan, SCM standard	
		UNIT IV	
28	13/10/21	System Engineering: Hierarchy	9
29	14/10/21	Business Process & Product engineering	
30	18/10/21	Requirement engineering, System modeling	
31	20/10/21	Concept of Requirement analysis	

32	21/10/21	Analysis principles.	
33	25/10/21	Design Process. Design Principles & Concepts	
34	26/10/21	Effective modular design	
35	27/10/21	Design model & documentation.	
36	28/10/21	Software prototyping, Specification	
		UNIT V	
37	08/11/21	Software architecture, Data Design	
38	09/11/21	Architectural styles, Requirement mapping	
39	10/11/21	Transform & Transaction mappings	
40	11/11/21	User interface design : Golden Rule. UTD	
41	15/11/21	Task analysis & modeling, ID activities, Tools.	**8**
42	16/11/21	Design evaluation	
43	17/11/21	Concept of Structure programming.	
44	18/11/21	Comparison of design notation, Component level design	
		UNIT-VI	
45	17/11/21	Software testing fundamentals	
46	22/11/21	test case design, Whitebox testing	
47	23/11/21	Basis path, control structure	
48	24/11/21	Blackbox-Testing, & for specialized environments	**8**
49	25/11/21	Strategic approach to S/W testing	
50	25/11/21	Testing Introduction	
51	6/12/21	System testing, Debugging	
52	7/12/21	Technical metrics for software.	
53	8/12/21	GATE Questionnaire	Content beyond syllabus

Faculty: - Prof. A.W. Burange

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Prof. Ram Meghe Institute of Technology & Research, Badnera
Department of Information Technology
(Session 2021-22)

Course Number and Title: 7IT05 Professional Elective - Distributed Database management Systems

Name of Faculty: - Prof. G.K Wadnere

Semester :- VII

Section : A & B

Lecture No.	Planned Dates	Topic Name	Total hours
Introduction to Course			
1	11/08/2021	Vision Mission of Institution, Vision Mission of our Department ,Objective of subject, Grading scheme, Text Books and Ref Books, Syllabus and Course Learning Outcomes (CLO),Application and importance of the Subject, Graduate Attributes	01
Unit-1 Introduction to DDBS			
2	13/08/2021	Distributed Data Processing Data Processing Vs. Data Management Systems	8
3	17/08/2021	What is a DDB Processing Traditional File Processing System Vs DDBS	
4	18/08/2021	Promises of DDBs, Problem areas	
5	20/08/2021	Overview of Relational DBMS	
6	23/08/2021	Normalization, Integrity Rules	
7	24/08/2021	Review of Computer Networks	
8	25/08/2021	Data Communication Concepts	
9	27/08/2021	Types of Network, Protocol Standard.	
Unit-2 Distributed DBMS architecture			
10	30/08/2021	Introduction to Distributed DBMS architecture	10
11	31/08/2021	DBMS standardization, Architectural Models	
12	01/09/2021	Distributed DBMS architecture	
13	03/09/2021	Distributed Database Design: Alternative Design Strategies	

14	06/09/2021	Distributed Design issues	
15	20/09/2021	Fragmentation	
16	21/09/2021	Allocation Semantic Data Control	
17	22/09/2021	View Management	
18	24/09/2021	Data Security	
19	27/09/2021	Semantic Integrity Control	
Unit-3 Overview of Query Processing			
20	28/09/2021	Overview of Query Processing	
21	29/09/2021	Overview of Query Processing objectives	
22	01/10/2021	Types of Optimization	
23	04/10/2021	Characteristics of Query processors: Languages, Decision Sites, Exploitation of Network Topology	7
24		Exploitation of Replicated fragments, Semi joins	
25	05/10/2021	Layers of Query processing, Query Decomposing, data Localization,	
26	08/10/2021	Global, Local Query Optimization,	
Unit-4 Distributed Transaction management and Concurrency control			
27	11/10/2021	Introduction to Distributed Transaction management and Concurrency control	
28	12/10/2021	Characterization of Transaction. Formalization of Transaction Concept	
29	13/10/2021	Definition, Properties of Transaction	
30	18/10/2021	Types of Transaction	
31	20/10/2021	Serilizability: Serializability Examples	9
32	22/10/2021	Taxonomy, Classification of concurrency Control Algorithms	
33	25/10/2021	Locking based concurrency control algorithms: Compatibility Matrices of Lock modes	
34	26/10/2021	Locking based concurrency control algorithms: 2PL lock Graph. Strict 2PL lock Graph	

35	27/10/2021	Deadlock management	
		Unit-5 Distributed DBMS reliability	
36	29/10/2021	Distributed DBMS reliability	7
37	01/11/2021	Reliability concepts and measures	
38	02/11/2021	Failures and Fault tolerance in distributed systems	
39	03/11/2021	Failures in DDBMS	
40	05/11/2021	Local reliability protocols : Architectural Considerations. Recovery Information. Execution of LRM Commands.	
41	08//11/2021	Check pointing. Handling Media failures.	
42	09/11/2021	Dealing with site failures	
		Unit-6 Distributed Object Database Management Systems	
43	10/11/2021	Distributed Object Database Management Systems	6
44	12/11/2021	Current issues	
45	15/11/2021	Data ware housing: Architectures. Olap Data Model	
46	16/11/2021	olaP Servers. Research issues.	
47	17/11/2021	World wide web	
48	19/11/2021	Mobile databases.	

Faculty: - Prof. G.K Wadnere

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Prof. Ram Meghe Institute of Technology & Research, Badnera
Department of Information Technology
(Session 2021-22)

Course Number and Title:- 5IT05 Open Elective - I (iii) Cyber law & Ethics
Name of Faculty: - Prof. H. D. Kale
Semester: - V

Lecture No.	Planned Dates	Topic Name	Total hours
		Unit-1 Introduction to Cyber law	
1	27/08/2021	Evolution of computer Technology, emergence of cyber space	7
2	28/08/2021	Cyber Jurisprudence, Jurisprudence and law	
3	28/08/2021	Doctrinal approach, Consensual approach, Real Approach, Cyber Ethics	
4	03/09/2021	Cyber Jurisdiction, Hierarchy of courts, Civil and criminal jurisdictions	
5	04/09/2021	Cyberspace Web space, Web hosting and web Development agreement	
6	04/09/2021	Legal and Technological Significance of domain Names	
7	11/09/2021	Internet as a tool for global access	
		Unit-2 Information Technology Act	
8	11/09/2021	Overview of IT Act, 2000, Amendments and Limitations of IT Act	7
9	17/09/2021	Digital Signatures, Cryptographic Algorithm, Public Cryptography, Private Cryptography	
10	18/09/2021	Electronic Governance, Legal Recognition of Electronic Records	
11	18/09/2021	Legal Recognition of Digital Signature	
12	24/09/2021	Certifying Authorities, Cyber Crime and Offences	
13	25/09/2021	Network Service Providers Liability, Cyber Regulations Appellate Tribunal	
14	25/09/2021	Penalties and Adjudication	
		Unit-3 Cyber law and Related Legislation	
15	01/10/2021	Patent Law, Trademark Law, Copyright	8
16	08/10/2021	Software–Copyright or Patented, Domain Names and Copyright disputes	
17	09/10/2021	Electronic Data Base and its Protection, IT Act and Civil	

		Procedure Code	
18	09/10/2021	IT Act and Criminal Procedural Code, Relevant Sections of Indian Evidence Act	
19	16/10/2021	Relevant Sections of Bankers Book Evidence Act,Relevant Sections of Indian Penal Code	
20	16/10/2021	Relevant Sections of Reserve Bank of India Act	
21	22/10/2021	Law Relating To Employees And Internet, Alternative Dispute Resolution	
22	23/10/2021	Online Dispute Resolution (ODR)	
Unit-4 Electronic Business and legal issues			
23	23/10/2021	Evolution and development in E-commerce	7
24	29/10/2021	Paper vs paper less contracts	
25	30/10/2021	E-Commerce models- B2B, B2C	
26	30/10/2021	E security. Business, taxation	
27	12/11/2021	Electronic payments, supply chain	
28	13/11/2021	EDI, E-markets	
29	13/11/2021	Emerging Trends	
Unit-5 Cyber Ethics			
30	20/11/2021	The Importance of Cyber Law	7
31	20/11/2021	Significance of cyber Ethics	
32	26/11/2021	Need for Cyber regulations and Ethics	
33	27/11/2021	Ethics in Information society	
34	27/11/2021	Introduction to Artificial Intelligence Ethics,	
35	03/12/2021	Ethical Issues in AI and core Principles	
36	04/12/2021	Introduction to Block chain Ethics	

Faculty: - Prof. H. D. Kale

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II Year

Prof. Ram Meghe Institute of Technology & Research, a
Department of Information Technology
Teaching Plan: Session 2021-22

Course Name & Code: Object Oriented Programming (3IT03)
Name of Faculty: Prof. Harshal D. Misalkar
Year & Semester: Second Year III SEM [Sec-A]

Lecture No.	Planned Dates	Topics to be covered	Total Hours
1	14-09-2021	Vision & Mission of Institute, Vision & Mission of Dept. PEOs, POs and PSOs, CLOs and COs, Grading Scheme, Text Books & Reference Books, Syllabus	01
		UNIT-1	
2	15-09-2021	Unit I: Introduction to Object Oriented Programming:	
3	16-09-2021	Introduction, Need of OOP	
4	17-09-2021	Principles of Object-Oriented Languages	
5	21-09-2021	Procedural Language Vs OOP, Application of OOP	
6	22-09-2021	Java Compiler, Java Virtual Machine	
7	23-09-2021	Java features, Program Structures.	12
8	24-09-2021	Programming Constructs: Variables, Primitive data types	
9	28-09-2021	Identifier, Literals	
10	29-09-2021	Operators in Java, Types	
11	30-09-2021	Expressions, Precedence Rules and Associativity	
12	01-10-2021	Primitive Type Conversion and Casting	
13	05-10-2021	Flow of Control.	
		UNIT-II	
14	07-10-2021	Classes and Objects: Classes, Objects	
15	08-10-2021	Creating Objects, Methods	
16	12-10-2021	Constructors	
17	13-10-2021	Cleaning up Unused Objects, Class Variable and Methods	08
18	14-10-2021	this keyword	
19	20-10-2021	Arrays	
20	21-10-2021	Arrays	
21	22-10-2021	Command Line Arguments	
		UNIT-1II	
22	26-10-2021	Inheritance: Inheritance vs. Aggregation	
23	27-10-2021	Polymorphism, Method Overloading Method Overriding	08
24	28-10-2021	super keyword, final keyword	

25	29-10-2021	Abstract class	
26	09-11-2021	Interfaces	
27	16-11-2021	Packages and Enumeration	
28	17-11-2021	Interface, Packages	
29	18-11-2021	java.lang package, Enum type	
		UNIT-IV	
30	23-11-2021	Exception: Introduction, Exception handling Techniques	
31	24-11-2021	User-defined exception	
32	25-11-2021	Exception Encapsulation and Enrichment	
33	26-11-2021	Input/Output:	**08**
34	30-11-2021	The java.io.file Class	
35	01-12-2021	Reading and Writing data	
36	02-12-2021	Randomly Accessing a file	
37	03-12-2021	Reading and Writing Files using I/O Package	
		UNIT-V	
38	07-12-2021	Applets: Introduction	
39	08-12-2021	Introduction to Applet Class	
40	09-12-2021	Applet structure, Applet Life cycle,	
41	10-12-2021	Common Methods used in displaying the output paint ()	**08**
42	14-12-2021	update () and repaint ()	
43	15-12-2021	More about applet tag	
44	16-12-2021	getDocumentBase () and getCodeBase() methods	
45	17-12-2021	Applet class Methods	
		UNIT-VI	
46	21-12-2021	Event Handling: Introduction, Event delegation Model	
47	22-12-2021	java.awt.event, Sources of events	
48	23-12-2021	Event Listeners	
49	24-12-2021	Adapter classes, Inner Classes	
50	28-12-2021	AWT: Introduction, Components and Containers	**09**
51	29-12-2021	Button, Label, Checkbox, Radio Buttons	
52	30-12-2021	List Boxes, Choice Boxes, Textfield and Textarea	
53	31-12-2021	Container Class, Layouts	
54	04-01-2022	Menu, Scrollbar	
		Total Lectures Planned	**54**

Prof. H. D. Misalkar

Dr. P. V. Ingole

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Prof. Ram Meghe Institute of Technology & Research, Badnera
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(Session 2021-22)

Course Number and Title: - Real Time Embedded Systems (7IT04)
Name of Faculty: - Prof. M. S. Deshmukh
Semester:- VII **Section :-** B

Lecture No.	Planned Dates	Topic Name	Total hours
		Unit-1	
1	11-08-21	Discussion on Vision, Mission, CLO, PEO, Syllabus, Graduate Attributes, Objective of Subject	9
2	12-08-21	Introduction to embedded systems	
3	13-08-21	Processor in the system, types of processor	
4	17-08-21	Hardware units required in the exemplary cases	
5	18-08-21	Software embedded into a system Final Machine implement able software for a product	
6	19-08-21	Software in Processor specific assembly language and high level language	
7	20-08-21	Device drivers device management using an operating systems	
8	24-08-21	Software design for scheduling multiple tasks and devices using RTOS	
9	25-08-21	Embedded SoC and in VLSI circuits.	
		Unit-2	
10	26-08-21	Structural units of the processor	8
11	27-08-21	Allocation of memory to program segment and blocks	
12	31-08-21	Memory map of the system	
13	01-09-21	Memory blocks for different data sets and structures	
14	02-09-21	Serial communication using I2C, CAN and advanced I/O buses between the networked multiple devices	
15	03-09-21	Device drivers, Virtual Devices,	
16	08-09-21	Device drivers for parallel port, serial and timing devices	
17	09-09-21	Context and periods for context switching, deadline and interrupt latency	
		Unit-3	
18	14-09-21	Software programming in assembly language and C	8
19	15-09-21	Program Elements: Use of data structures Queues, Stacks, Lists and Trees	
20	16-09-21	Use of data structures Function pointers, Function queues and ISR queues	
21	17-09-21	Queues for implementing protocol for a network, Queuing of functions on interrupts	
22	21-09-21	Use of FIPO queues, Stacks,	
23	22-09-21	Lists and Ordered Lists	
24	23-09-21	Embedded Programming in C++	
25	24-09-21	Embedded Programming in Java	

		Unit-4	
26	28-09-21	Modeling process, Use of dataflow & control data flow graphs,	7
27	29-09-21	Programming model for event controlled or response time constraint, Real time programs,	
28	30-09-21	use of finite states machine model	
29	01-10-21	finite states machine model-timer, c function	
30	28-09-21	Petri net Model	
31	08-10-21	Modeling of Multiprocessor systems	
32	12-10-21	Inter process Communication and Synchronization: Multiple processes in an application: Process, Tasks, Threads, Sharing data by multiple tasks	
		Unit-5	
33	13-10-21	Use of Semaphores for a task or for Critical section of code,	8
34	14-10-21	Mutex & P & V semaphores	
35	20-10-21	Priority inversion problems & Deadlock situations	
36	21-10-21	IPC issues: Use of signals, Use of Semaphore flags	
37	22-10-21	Use of Mutex as resource key,	
38	26-10-21	Use of message queues,	
39	27-10-21	Mailboxes, pipes,	
40	28-10-21	Virtual sockets, RPCs	
		Unit-6	
41	29-10-21	Introduction to RTOS, OS Services, RTOS Services,	9
42	09-11-21	Schedule management for multiple tasks in Real Time, Handling of interrupt source call	
43	10-11-21	RTOS task scheduling models, Cooperative Round Robin Scheduling using a Circular Queue of ready tasks	
44	11-11-21	Using an Ordered list as per precedence constraints, Cycling scheduling in Time Slicing	
45	12-11-21	Preemptive scheduling, Critical section service by preemptive scheduler,	
46	16-11-21	Fixed Real Time scheduling, Precedence assignment in Scheduling algorithms.	
47	17-11-21	Performance metrics, IEEE Standard POSIX 1003.1B,	
48	23-11-21	Fifteen-point' strategy for Synchronization,	
49	24-11-21	Embedded Linux Kernel	
50	25-11-21	IC Technology	**Content beyond Syllabus**
51	26-11-21	Issues in Design Technology	

Faculty: - Prof. M. S. Deshmukh

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Prof. Ram Meghe Institute of Technology & Research, Badnera
Department of Information Technology
(Session 2021-22)

Course Number and Title: - Artificial Intelligence and Expert System (7IT05)
Name of Faculty: - Prof. N. S. Band
Semester :- VII **Section :-** A&B

Lecture No.	Planned Dates	Topic Name	Total hours
		Introduction to Course	
1	11/08/2021	Vision Mission of Institution, Vision Mission of our Department ,Objective of subject, Grading scheme, Text Books and Ref Books, Syllabus and Course Learning Outcomes (CLO),Application and importance of the Subject, Graduate Attributes	**01**
		Unit-1	
2	13/08/2021	Introduction to Artificial Intelligence, The AI Problems.	**08**
3	17/08/2021	The Underlying Assumption.	
4	18/08/2021	What is an AI Technique,	
5	20/08/2021	Problems, Problem Spaces and Search.	
6	23/08/2021	Problem Characteristics	
7	24/08/2021	Production Systems	
8	25/08/2021	Production System Characteristics	
9	27/08/2021	Issues in the Design of Search Programs	
		Unit-2	
10	30/08/2021	Heuristic Search Techniques:	**08**
11	31/08/2021	Generate-and-Test.	
12	01/09/2021	Hill Climbing.	
13	03/09/2021	Best-first Search, A* Algorithm	
14	08/09/2021	Problem Reduction, AND-OR Graphs.	
15	14/09/2021	The AO* Algorithm,	
16	15/09/2021	Constraint Satisfaction.	
17	17/09/2021	Means ends Analysis	

IV Year

Prof. Ram Meghe Institute of Technology & Research, Badnera
Department of Information Technology
Lesson Plan (Session 2021-22)

Course Number and Title: - Real Time Embedded System (7IT04)
Name of Faculty: - Prof. A. A. Gulhane
Semester: -VII **Section**: - A

Lecture No.	Planned Dates	Topic Name	Total hours
		Unit-1	
1	12-08-2021	Discussion on Vision, Mission, CLO, PEO, Syllabus, Graduate Attributes, Objective of Subject	
2	13-08-2021	Introduction to embedded systems	9
3	17-08-2021	Processor in the system, types of processor	
4	20-08-2021	Hardware units required in the exemplary cases	
5	23-08-2021	Software embedded into a system. Final Machine implement able software for a product	
6	24-08-2021	Software in Processor specific assembly language and high level language	
7	26-08-2021	Device drivers device management using an operating systems	
8	27-08-2021	Software design for scheduling multiple tasks and devices using RTOS	
9	30-08-2021	Embedded SoC and in VLSI circuits.	
		Unit-2	
10	31-08-2021	Structural units of the processor	8
11	02-09-2021	Allocation of memory to program segment and blocks	
12	03-09-2021	Memory map of the system	
13	06-09-2021	Memory blocks for different data sets and structures	
14	09-09-2021	Serial communication using I2C, CAN and advanced I/O buses between the networked multiple devices	
15	14-09-2021	Device drivers, Virtual Devices,	
16	16-09-2021	Device drivers for parallel port, serial and timing devices	
17	17-09-2021	Context and periods for context switching, deadline and interrupt latency	

Lecture No.	Planned Dates	Topic Name	Total hours
		Unit-3	
18	20-09-2021	Software programming in assembly language and C	8
19	21-09-2021	Program Elements: Use of data structures Queues, Stacks, Lists and Trees	
20	23-09-2021	Use of data structures Function pointers, Function queues and ISR queues	
21	24-09-2021	Queues for implementing protocol for a network, Queuing of functions on interrupts	
22	27-09-2021	Use of FIPO queues, Stacks,	
23	28-09-2021	Lists and Ordered Lists	
24	30-09-2021	Embedded Programming in C++	
25	01-10-2021	Embedded Programming in Java	
		Unit-4	
26	04-10-2021	Modeling process, Use of dataflow & control data flow graphs,	7
27	05-10-2021	Programming model for event controlled or response time constraint, Real time programs,	
28	07-10-2021	use of finite states machine model	
29	08-10-2021	finite states machine model-timer, c function	
30	11-10-2021	Petri net Model	
31	12-10-2021	Modeling of Multiprocessor systems	
32	14-10-2021	IPC and Synchronization: Multiple processes in an application: Process, Tasks, Threads, Sharing data by multiple tasks	
		Unit-5	
33	18-10-2021	Use of Semaphores for a task or for Critical section of code,	8
34	21-10-2021	Mutex & P & V semaphores	
35	22-10-2021	Priority inversion problems & Deadlock situations	
36	25-10-2021	IPC issues: Use of signals, Use of Semaphore flags	
37	26-10-2021	Use of Mutex as resource key,	
38	28-10-2021	Use of message queues,	
39	29-10-2021	Mailboxes, pipes,	
40	08-11-2021	Virtual sockets, RPCs	

Unit-6			
41	09-11-2021	Introduction to RTOS, OS Services, RTOS Services,	9
42	11-11-2021	Schedule management for multiple tasks in Real Time, Handling of interrupt source call	
43	12-11-2021	RTOS task scheduling models, Cooperative Round Robin Scheduling using a Circular Queue of ready tasks	
44	15-11-2021	Using an Ordered list as per precedence constraints, Cycling scheduling in Time Slicing	
45	16-11-2021	Preemptive scheduling, Critical section service by preemptive scheduler,	
46	18-11-2021	Fixed Real Time scheduling, Precedence assignment in Scheduling algorithms.	
47	22-11-2021	Performance metrics, IEEE Standard POSIX 1003.1B,	
48	23-11-2021	Fifteen-point' strategy for Synchronization,	
49	25-11-2021	Embedded Linux Kernel	
50	26-11-2021	IC Technology	**Content beyond Syllabus**
51	29-11-2021	Issues in Design Technology	

Faculty: - Prof. A. A. Gulhane

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Prof. Ram Meghe Institute of Technology & Research, Badnera
Department of Information Technology
Teaching Plan: Session 2021-22

Course Name & Code: Analog & Digital Electronics [3IT05]
Name of Faculty: Prof. Avinash G. Mahalle
Year & Semester: Second Year III [A]

Lecture No.	Planned Dates	Topics to be covered	Total Hours
1	14-09-2021	Vision & Mission of Institute, Vision & Mission of Dept. PEOs, POs and PSOs, CLOs and COs, Grading Scheme, Text Books & Reference Books, Syllabus	01
		UNIT-1	
2	15-09-2021	Semiconductor Basics	09
3	16-09-2021	Transistors Basics	
4	18-09-2021	Transistor as an Amplifier	
5	21-09-2021	Faithful amplification of CE amplifier	
6	22-09-2021	Need of Transistor Biasing	
7	23-09-2021	Potential Divider Bias Circuit	
8	25-09-2021	Transistor as an Electronic Switch,	
9	27-09-2021	Field Effect Transistor, Difference between BJT & FET	
10	29-09-2021	Construction and working of JFET	
		UNIT-2	
11	30-09-2021	Basics of Operational Amplifier	09
12	04-10-2021	Block diagram of operational amplifier	
13	07-10-2021	Ideal operational amplifier parameters	
14	11-10-2021	Inverting Amplifier	
15	13-10-2021	Non-Inverting Amplifier, Voltage follower	
16	14-10-2021	Solved Problems on inverting & non-inverting amplifiers	
17	16-10-2021	Summing Amplifier	
18	18-10-2021	Subtractor	
19	20-10-2021	Comparator	
		UNIT-3	
20	21-10-2021	Basics of Oscillator	08
21	23-10-2021	Barkhausen Criterion	
22	25-10-2021	RC Phase Shift Oscillator	
23	27-10-2021	Transistor Crystal Oscillator	
24	28-10-2021	Block diagram of Timer IC 555	
25	30-10-2021	Astable Multivibrator	
26	08-11-2021	Monostable Multivibrator	
27	15-11-2021	Solved Problems	

Lecture No.	Planned Dates	Topic to be covered	Total Hours
		UNIT-4	
28	17-11-2021	Various Logic Gates and their truth tables	09
29	18-11-2021	Standard logic expression forms: SOP & POS	
30	20-11-2021	Logic expression realization & minimization using K-map	
31	22-11-2021	Two variable K-map	
32	24-11-2021	Three variable K-map	
33	25-11-2021	Four variable K-map	
34	27-11-2021	Solved problems on K-map	
35	29-11-2021	Half Adder, Full Adder	
36	01-12-2021	Half subtractor, Full subtractor	
		UNIT-5	
37	02-12-2021	Difference between Combinational and Sequential circuits	08
38	04-12-2021	Code convertors (BCD, Excess-3 and Gray)	
39	06-12-2021	Multiplexers	
40	08-12-2021	De-multiplexers	
41	09-12-2021	Decoders	
42	11-12-2021	SR flip-flop	
43	13-12-2021	JK flip-flop	
44	15-12-2021	D flip-flop & T flip-flop	
		UNIT-6	
45	16-12-2021	Difference between Asynchronous and Synchronous sequential circuits	08
46	18-12-2021	Asynchronous Counters	
47	20-12-2021	Up-Counter	
48	22-12-2021	Down-Counter	
49	23-12-2021	Mod Counter	
50	27-12-2021	Working of Shift Registers, SISO	
51	29-12-2021	SIPO, PISO and PIPO	
52	30-12-2021	Application of Shift Register as a Ring Counter	
53	01-01-2022	Difficulty Session-I	02
54	03-01-2022	Difficulty Session-II	
		Total Lectures Planned	54

Prof. A. G. Mahalle

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Prof. Ram Meghe Institute of Technology & Research, Badnera

Department of Information Technology

Session:2018-19

Course Number and Title: - Discrete Structure & Graph Theory (3IT02)

Name of Faculty: -Dr. A. S. Alvi Semester:-III[rd] Sem

Lecture No.	Planned Dates	Topic Name	Total hours
		Unit-1	
1	15-Sep-2021	Statements & Notation	10
2	16-Sep-2021	Connectives	
3	17-Sep-2021	Normal forms	
4	20-Sep-2021	Equivalences	
5	22-Sep-2021	Principal of DNF	
6	23-Sep-2021	Principal of CNF &	
7	24-Sep-2021	Inference Rule	
8	27-Sep-2021	The theory of inference for the statement calculus	
9	29-Sep-2021	Predicate calculus and Problems	
10	30-Sep-2021	The Theory of the Predicate calculus	
		Unit-II	
11	01-Oct-2021	Basic concepts of Set Theory	7
12	04-Oct-2021	Representation of Discrete Structure	
13	06-Oct-2021	Relation	
14	07-Oct-2021	Ordering of Set	
15	08-Oct-2021	Functions , Recursion	
16	11-Oct-2021	Recursive function.	
17	13-Oct-2021	Sets & Predicates	
		Unit-III	
18	14-Oct-2021	Algebraic Systems	7
19	18-Oct-2021	Semi groups	
20	20-Oct-2021	Monoids	
21	21-Oct-2021	Grammars& Languages	
22	22-Oct-2021	Polish expression	
23	25-Oct-2021	Polish expression & their compilation	
24	27-Oct-2021	Application of Residue Arithmetic to Computers.	

		Unit-IV	
25	28-Oct-2021	Lattices	8
26	29-Oct-2021	Partially ordered sets	
27	08-Nov-2021	Lattices as an Algebraic system	
28	10-Nov-2021	Boolean Algebra	
29	11-Nov-2021	Boolean Functions	
30	12-Nov-2021	Representation of Boolean Functions	
31	15-Nov-2021	Minimization of Boolean Functions	
32	17-Nov-2021	Minimization of Boolean Functions cont…	
		Unit -V	
33	18-Nov-2021	Graph Theory Basic concepts	8
34	22-Nov-2021	Graph Theory Paths	
35	24-Nov-2021	Reachability	
36	25-Nov-2021	Connectedness.	
37	26-Nov-2021	Matrix representation of graphs	
38	29-Nov-2021	Matrix representation of graphs cont…	
39	01-Dec-2021	Storage Representation and Manipulation of graph	
40	02-Dec-2021	Coloring of Graphs	
		Unit-VI	
41	03-Dec-2021	Basic concepts of Tree	8
42	06-Dec-2021	Tree Searching	
43	08-Dec-2021	Minimal spanning trees	
44	09-Dec-2021	Grammars, rooted tree	
45	10-Dec-2021	Expression tree, B tree	
46	13-Dec-2021	Distance between spanning trees of a graph	
47	15-Dec-2021	PERT and Related Techniques.	
48	16-Dec-2021	PERT and Related Techniques cont..	
49	17-Dec-2021		Content beyond Syllabus
50	20-Dec-2021		
51	22-Dec-2021		

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Prof. Ram Meghe Institute of Technology & Research, Badnera
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Course Number and Title: - Assembly Language Programming(3IT04)
Name of Faculty: - Prof. A. S. Mahalle
Semester :- III **Section :-** A

Lecture No.	Planned Date	Topic Name	Total hours
		Unit-1	
1	14/09/2021	Introduction to Number system(Decimal, Binary, Hexadecimal)	9
2	16/09/2021	Microprocessor 8086 architecture-BIU and EU	
3	18/09/2021	pin configuration of 8086	
4	20/09/2021	pin configuration of 8086	
5	21/09/2021	Software model of 8086,	
6	23/09/2021	Memory addresses space and data organization,	
7	25/09/2021	Data types, Segment registers, memory segmentation	
8	27/09/2021	IP & Data registers, Pointer, Index registers	
9	28/09/2021	Memory addresses generation, Maximum and Minimum Modes.	
		Unit-2	
10	30/09/2021	8086 Instruction set overview	8
11	04/10/2021	Addressing modes	
12	05/10/2021	8086 instruction formats	
12	07/10/2021	8086 programming: Integer instructions and computations	
14	09/10/2021	Data transfer instructions	
15	11/10/2021	Arithmetic instructions and their use in 8086 programming	
16	12/10/2021	Arithmetic instructions and their use in 8086 programming	
17	14/10/2021	**Revision Unit 2**	
		Unit-3	
18	16/10/2021	8086 instructions: logical instructions	8
19	18/10/2021	Shift and rotate instructions and their use in 8086 programming.	
20	21/10/2021	8086 flag register and Flag control instructions	
21	23/10/2021	Compare instructions, control flow and jump instructions	
22	25/10/2021	Loops & loop handling instructions	
23	26/10/2021	8086 programming using these instructions	
24	28/10/2021	8086 programming using these instructions	

25	30/10/2021	**Revision Unit 3**	
		Unit-4	
26	15/11/2021	Stack and Subroutines	9
27	16/11/2021	8086 stack segment and stack related instructions	
28	18/11/2021	8086 I/O Address space	
29	20/11/2021	Subroutines and related instructions	
31	22/11/2021	Parameter passing, Concept of Macros	
32	23/11/2021	Concept of recursion at assembly Program level	
33	25/11/2021	8086 programming using subroutines	
34	27/11/2021	Recursion and macros.	
35	29/11/2021	**Revision Unit 4**	
		Unit-5	
36	30/11/2021	8086 I/O: Types of input output	8
37	02/12/2021	Isolated I/O interface	
38	09/12/2021	Input output data transfers	
39	11/12/2021	I/O instructions and bus cycles	
40	13/12/2021	Programmable Peripheral Interface 8255 PPI	
41	14/12/2021	pin diagram	
42	16/12/2021	Internal organization	
43	18/12/2021	modes of operation, **Revision Unit V**	
		Unit-6	
44	20/12/2021	8086 Interrupts Mechanism	8
45	21/12/2021	Priority and types.	
46	23/12/2021	Interrupt vector table, Interrupt Instructions	
47	27/12/2021	External hardware-interrupt interface signals & interrupts sequence	
48	28/12/2021	PIC 8259: Block & pin diagram	
49	30/12/2021	Internal architecture	
50	01/01/2022	Software interrupts, Non-maskable interrupts	
51	03/01/2022	Internal Interrupt functions	
52	04/01/2022	8288 Bus Controller	Content Beyond Syllabus
53	06/01/2022	Programmable Timer 8253	
54	08/01/2022	Gate Questionnaire	

Faculty: - A. S. Mahalle

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Prof. Ram Meghe Institute of Technology & Research, Badnera
Department of Information Technology
Teaching Plan (Session 2021-22)

Course Number and Title: - Software Engineering (5IT03)
Name of Faculty: - Prof. A. W. Burange
Semester: - V
Section :- A

Sr No.	Planned Date	Topic Name	Total hours
		UNIT-I	
1	17/08/21	Evolving role of Software.	9
2	18/08/21	Software crises & myths	
3	23/08/21	Software engineering introduction.	
4	24/08/21	Software process & process models	
5	25/08/21	Linear sequential, Prescriptive models, prototyping	
6	26/08/21	Waterfall model, Limitations of Waterfall model	
7	30/08/21	Incremental model, Evolutionary Product & Process	
8	31/08/21	Project management concepts: People, Product, Process, Project	
9	01/09/21	W5HH principles, critical practice.	
		UNIT-II	
10	02/09/21	Measures, Metrics & Indicators	9
11	06/09/21	Metrics in process & project domains-software	
12	07/09/21	software measurement, Metrics for software quality	
13	08/09/21	small organization	
14	09/09/21	Software projects Planning	
15	14/09/21	Scope, resources, estimation	
16	15/09/21	decomposition technique, Tools.	
17	16/09/21	Software risks : identification, risk projection	
18	20/09/21	Refinement & RMMM plan.	
		UNIT III	
19	21/09/21	Project Scheduling	9
20	22/09/21	Concepts. People Efforts	
21	23/09/21	Task set, Task network	
22	27/09/21	Scheduling. EV analysis, Project Plan	
23	28/09/21	Software quality concepts	
24	29/09/21	SQ Assurance, Software reviews, technical reviews	
25	30/09/21	Software reliability, ISO 900 L	
26	11/10/21	SCM process. Version control	
27	12/10/21	SQA Plan, SCM standard	
		UNIT IV	
28	13/10/21	System Engineering: Hierarchy	9
29	14/10/21	Business Process & Product engineering	
30	18/10/21	Requirement engineering, System modeling	
31	20/10/21	Concept of Requirement analysis	

32	21/10/21	Analysis principles.	
33	25/10/21	Design Process. Design Principles & Concepts	
34	26/10/21	Effective modular design	
35	27/10/21	Design model & documentation.	
36	28/10/21	Software prototyping, Specification	
		UNIT V	
37	08/11/21	Software architecture, Data Design	
38	09/11/21	Architectural styles, Requirement mapping	
39	10/11/21	Transform & Transaction mappings	
40	11/11/21	User interface design : Golden Rule. UTD	
41	15/11/21	Task analysis & modeling, ID activities, Tools.	**8**
42	16/11/21	Design evaluation	
43	17/11/21	Concept of Structure programming.	
44	18/11/21	Comparison of design notation, Component level design	
		UNIT-VI	
45	17/11/21	Software testing fundamentals	
46	22/11/21	test case design, Whitebox testing	
47	23/11/21	Basis path, control structure	
48	24/11/21	Blackbox-Testing, & for specialized environments	**8**
49	25/11/21	Strategic approach to S/W testing	
50	25/11/21	Testing Introduction	
51	6/12/21	System testing, Debugging	
52	7/12/21	Technical metrics for software.	
53	8/12/21	GATE Questionnaire	Content beyond syllabus

Faculty: - Prof. A.W. Burange

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Prof. Ram Meghe Institute of Technology & Research, Badnera
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(Session 2021-22)

Course Number and Title: 7IT05 Professional Elective - Distributed Database management Systems

Name of Faculty: - Prof. G.K Wadnere

Semester :- VII

Section : A & B

Lecture No.	Planned Dates	Topic Name	Total hours
Introduction to Course			
1	11/08/2021	Vision Mission of Institution, Vision Mission of our Department ,Objective of subject, Grading scheme, Text Books and Ref Books, Syllabus and Course Learning Outcomes (CLO),Application and importance of the Subject, Graduate Attributes	01
Unit-1 Introduction to DDBS			
2	13/08/2021	Distributed Data Processing Data Processing Vs. Data Management Systems	8
3	17/08/2021	What is a DDB Processing Traditional File Processing System Vs DDBS	
4	18/08/2021	Promises of DDBs, Problem areas	
5	20/08/2021	Overview of Relational DBMS	
6	23/08/2021	Normalization, Integrity Rules	
7	24/08/2021	Review of Computer Networks	
8	25/08/2021	Data Communication Concepts	
9	27/08/2021	Types of Network, Protocol Standard.	
Unit-2 Distributed DBMS architecture			
10	30/08/2021	Introduction to Distributed DBMS architecture	10
11	31/08/2021	DBMS standardization, Architectural Models	
12	01/09/2021	Distributed DBMS architecture	
13	03/09/2021	Distributed Database Design: Alternative Design Strategies	

14	06/09/2021	Distributed Design issues	
15	20/09/2021	Fragmentation	
16	21/09/2021	Allocation Semantic Data Control	
17	22/09/2021	View Management	
18	24/09/2021	Data Security	
19	27/09/2021	Semantic Integrity Control	
Unit-3 Overview of Query Processing			
20	28/09/2021	Overview of Query Processing	
21	29/09/2021	Overview of Query Processing objectives	
22	01/10/2021	Types of Optimization	
23	04/10/2021	Characteristics of Query processors: Languages, Decision Sites, Exploitation of Network Topology	7
24		Exploitation of Replicated fragments, Semi joins	
25	05/10/2021	Layers of Query processing, Query Decomposing, data Localization,	
26	08/10/2021	Global, Local Query Optimization,	
Unit-4 Distributed Transaction management and Concurrency control			
27	11/10/2021	Introduction to Distributed Transaction management and Concurrency control	
28	12/10/2021	Characterization of Transaction. Formalization of Transaction Concept	
29	13/10/2021	Definition, Properties of Transaction	
30	18/10/2021	Types of Transaction	
31	20/10/2021	Serilizability: Serializability Examples	9
32	22/10/2021	Taxonomy, Classification of concurrency Control Algorithms	
33	25/10/2021	Locking based concurrency control algorithms: Compatibility Matrices of Lock modes	
34	26/10/2021	Locking based concurrency control algorithms: 2PL lock Graph. Strict 2PL lock Graph	

35	27/10/2021	Deadlock management	
		Unit-5 Distributed DBMS reliability	
36	29/10/2021	Distributed DBMS reliability	7
37	01/11/2021	Reliability concepts and measures	
38	02/11/2021	Failures and Fault tolerance in distributed systems	
39	03/11/2021	Failures in DDBMS	
40	05/11/2021	Local reliability protocols : Architectural Considerations. Recovery Information. Execution of LRM Commands.	
41	08//11/2021	Check pointing. Handling Media failures.	
42	09/11/2021	Dealing with site failures	
		Unit-6 Distributed Object Database Management Systems	
43	10/11/2021	Distributed Object Database Management Systems	6
44	12/11/2021	Current issues	
45	15/11/2021	Data ware housing: Architectures. Olap Data Model	
46	16/11/2021	olaP Servers. Research issues.	
47	17/11/2021	World wide web	
48	19/11/2021	Mobile databases.	

Faculty: - Prof. G.K Wadnere

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Department of Information Technology
(Session 2021-22)

Course Number and Title:- 5IT05 Open Elective - I (iii) Cyber law & Ethics
Name of Faculty: - Prof. H. D. Kale
Semester: - V

Lecture No.	Planned Dates	Topic Name	Total hours
		Unit-1 Introduction to Cyber law	
1	27/08/2021	Evolution of computer Technology, emergence of cyber space	7
2	28/08/2021	Cyber Jurisprudence, Jurisprudence and law	
3	28/08/2021	Doctrinal approach, Consensual approach, Real Approach, Cyber Ethics	
4	03/09/2021	Cyber Jurisdiction, Hierarchy of courts, Civil and criminal jurisdictions	
5	04/09/2021	Cyberspace Web space, Web hosting and web Development agreement	
6	04/09/2021	Legal and Technological Significance of domain Names	
7	11/09/2021	Internet as a tool for global access	
		Unit-2 Information Technology Act	
8	11/09/2021	Overview of IT Act, 2000, Amendments and Limitations of IT Act	7
9	17/09/2021	Digital Signatures, Cryptographic Algorithm, Public Cryptography, Private Cryptography	
10	18/09/2021	Electronic Governance, Legal Recognition of Electronic Records	
11	18/09/2021	Legal Recognition of Digital Signature	
12	24/09/2021	Certifying Authorities, Cyber Crime and Offences	
13	25/09/2021	Network Service Providers Liability, Cyber Regulations Appellate Tribunal	
14	25/09/2021	Penalties and Adjudication	
		Unit-3 Cyber law and Related Legislation	
15	01/10/2021	Patent Law, Trademark Law, Copyright	8
16	08/10/2021	Software–Copyright or Patented, Domain Names and Copyright disputes	
17	09/10/2021	Electronic Data Base and its Protection, IT Act and Civil	

		Procedure Code	
18	09/10/2021	IT Act and Criminal Procedural Code, Relevant Sections of Indian Evidence Act	
19	16/10/2021	Relevant Sections of Bankers Book Evidence Act,Relevant Sections of Indian Penal Code	
20	16/10/2021	Relevant Sections of Reserve Bank of India Act	
21	22/10/2021	Law Relating To Employees And Internet, Alternative Dispute Resolution	
22	23/10/2021	Online Dispute Resolution (ODR)	
Unit-4 Electronic Business and legal issues			
23	23/10/2021	Evolution and development in E-commerce	7
24	29/10/2021	Paper vs paper less contracts	
25	30/10/2021	E-Commerce models- B2B, B2C	
26	30/10/2021	E security. Business, taxation	
27	12/11/2021	Electronic payments, supply chain	
28	13/11/2021	EDI, E-markets	
29	13/11/2021	Emerging Trends	
Unit-5 Cyber Ethics			
30	20/11/2021	The Importance of Cyber Law	7
31	20/11/2021	Significance of cyber Ethics	
32	26/11/2021	Need for Cyber regulations and Ethics	
33	27/11/2021	Ethics in Information society	
34	27/11/2021	Introduction to Artificial Intelligence Ethics,	
35	03/12/2021	Ethical Issues in AI and core Principles	
36	04/12/2021	Introduction to Block chain Ethics	

Faculty: - Prof. H. D. Kale

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II Year

Prof. Ram Meghe Institute of Technology & Research, a
Department of Information Technology
Teaching Plan: Session 2021-22

Course Name & Code: Object Oriented Programming (3IT03)
Name of Faculty: Prof. Harshal D. Misalkar
Year & Semester: Second Year III SEM [Sec-A]

Lecture No.	Planned Dates	Topics to be covered	Total Hours
1	14-09-2021	Vision & Mission of Institute, Vision & Mission of Dept. PEOs, POs and PSOs, CLOs and COs, Grading Scheme, Text Books & Reference Books, Syllabus	01
		UNIT-1	
2	15-09-2021	Unit I: Introduction to Object Oriented Programming:	
3	16-09-2021	Introduction, Need of OOP	
4	17-09-2021	Principles of Object-Oriented Languages	
5	21-09-2021	Procedural Language Vs OOP, Application of OOP	
6	22-09-2021	Java Compiler, Java Virtual Machine	
7	23-09-2021	Java features, Program Structures.	12
8	24-09-2021	Programming Constructs: Variables, Primitive data types	
9	28-09-2021	Identifier, Literals	
10	29-09-2021	Operators in Java, Types	
11	30-09-2021	Expressions, Precedence Rules and Associativity	
12	01-10-2021	Primitive Type Conversion and Casting	
13	05-10-2021	Flow of Control.	
		UNIT-II	
14	07-10-2021	Classes and Objects: Classes, Objects	
15	08-10-2021	Creating Objects, Methods	
16	12-10-2021	Constructors	
17	13-10-2021	Cleaning up Unused Objects, Class Variable and Methods	08
18	14-10-2021	this keyword	
19	20-10-2021	Arrays	
20	21-10-2021	Arrays	
21	22-10-2021	Command Line Arguments	
		UNIT-1II	
22	26-10-2021	Inheritance: Inheritance vs. Aggregation	
23	27-10-2021	Polymorphism, Method Overloading Method Overriding	08
24	28-10-2021	super keyword, final keyword	

25	29-10-2021	Abstract class	
26	09-11-2021	Interfaces	
27	16-11-2021	Packages and Enumeration	
28	17-11-2021	Interface, Packages	
29	18-11-2021	java.lang package, Enum type	
		UNIT-IV	
30	23-11-2021	Exception: Introduction, Exception handling Techniques	
31	24-11-2021	User-defined exception	
32	25-11-2021	Exception Encapsulation and Enrichment	
33	26-11-2021	Input/Output:	**08**
34	30-11-2021	The java.io.file Class	
35	01-12-2021	Reading and Writing data	
36	02-12-2021	Randomly Accessing a file	
37	03-12-2021	Reading and Writing Files using I/O Package	
		UNIT-V	
38	07-12-2021	Applets: Introduction	
39	08-12-2021	Introduction to Applet Class	
40	09-12-2021	Applet structure, Applet Life cycle,	
41	10-12-2021	Common Methods used in displaying the output paint ()	**08**
42	14-12-2021	update () and repaint ()	
43	15-12-2021	More about applet tag	
44	16-12-2021	getDocumentBase () and getCodeBase() methods	
45	17-12-2021	Applet class Methods	
		UNIT-VI	
46	21-12-2021	Event Handling: Introduction, Event delegation Model	
47	22-12-2021	java.awt.event, Sources of events	
48	23-12-2021	Event Listeners	
49	24-12-2021	Adapter classes, Inner Classes	
50	28-12-2021	AWT: Introduction, Components and Containers	**09**
51	29-12-2021	Button, Label, Checkbox, Radio Buttons	
52	30-12-2021	List Boxes, Choice Boxes, Textfield and Textarea	
53	31-12-2021	Container Class, Layouts	
54	04-01-2022	Menu, Scrollbar	
		Total Lectures Planned	**54**

Prof. H. D. Misalkar

Dr. P. V. Ingole

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Prof. Ram Meghe Institute of Technology & Research, Badnera
Department of Information Technology
(Session 2021-22)

Course Number and Title: - Real Time Embedded Systems (7IT04)
Name of Faculty: - Prof. M. S. Deshmukh
Semester:- VII **Section :-** B

Lecture No.	Planned Dates	Topic Name	Total hours
		Unit-1	
1	11-08-21	Discussion on Vision, Mission, CLO, PEO, Syllabus, Graduate Attributes, Objective of Subject	9
2	12-08-21	Introduction to embedded systems	
3	13-08-21	Processor in the system, types of processor	
4	17-08-21	Hardware units required in the exemplary cases	
5	18-08-21	Software embedded into a system Final Machine implement able software for a product	
6	19-08-21	Software in Processor specific assembly language and high level language	
7	20-08-21	Device drivers device management using an operating systems	
8	24-08-21	Software design for scheduling multiple tasks and devices using RTOS	
9	25-08-21	Embedded SoC and in VLSI circuits.	
		Unit-2	
10	26-08-21	Structural units of the processor	8
11	27-08-21	Allocation of memory to program segment and blocks	
12	31-08-21	Memory map of the system	
13	01-09-21	Memory blocks for different data sets and structures	
14	02-09-21	Serial communication using I2C, CAN and advanced I/O buses between the networked multiple devices	
15	03-09-21	Device drivers, Virtual Devices,	
16	08-09-21	Device drivers for parallel port, serial and timing devices	
17	09-09-21	Context and periods for context switching, deadline and interrupt latency	
		Unit-3	
18	14-09-21	Software programming in assembly language and C	8
19	15-09-21	Program Elements: Use of data structures Queues, Stacks, Lists and Trees	
20	16-09-21	Use of data structures Function pointers, Function queues and ISR queues	
21	17-09-21	Queues for implementing protocol for a network, Queuing of functions on interrupts	
22	21-09-21	Use of FIPO queues, Stacks,	
23	22-09-21	Lists and Ordered Lists	
24	23-09-21	Embedded Programming in C++	
25	24-09-21	Embedded Programming in Java	

		Unit-4	
26	28-09-21	Modeling process, Use of dataflow & control data flow graphs,	7
27	29-09-21	Programming model for event controlled or response time constraint, Real time programs,	
28	30-09-21	use of finite states machine model	
29	01-10-21	finite states machine model-timer, c function	
30	28-09-21	Petri net Model	
31	08-10-21	Modeling of Multiprocessor systems	
32	12-10-21	Inter process Communication and Synchronization: Multiple processes in an application: Process, Tasks, Threads, Sharing data by multiple tasks	
		Unit-5	
33	13-10-21	Use of Semaphores for a task or for Critical section of code,	8
34	14-10-21	Mutex & P & V semaphores	
35	20-10-21	Priority inversion problems & Deadlock situations	
36	21-10-21	IPC issues: Use of signals, Use of Semaphore flags	
37	22-10-21	Use of Mutex as resource key,	
38	26-10-21	Use of message queues,	
39	27-10-21	Mailboxes, pipes,	
40	28-10-21	Virtual sockets, RPCs	
		Unit-6	
41	29-10-21	Introduction to RTOS, OS Services, RTOS Services,	9
42	09-11-21	Schedule management for multiple tasks in Real Time, Handling of interrupt source call	
43	10-11-21	RTOS task scheduling models, Cooperative Round Robin Scheduling using a Circular Queue of ready tasks	
44	11-11-21	Using an Ordered list as per precedence constraints, Cycling scheduling in Time Slicing	
45	12-11-21	Preemptive scheduling, Critical section service by preemptive scheduler,	
46	16-11-21	Fixed Real Time scheduling, Precedence assignment in Scheduling algorithms.	
47	17-11-21	Performance metrics, IEEE Standard POSIX 1003.1B,	
48	23-11-21	Fifteen-point' strategy for Synchronization,	
49	24-11-21	Embedded Linux Kernel	
50	25-11-21	IC Technology	**Content beyond Syllabus**
51	26-11-21	Issues in Design Technology	

Faculty: - Prof. M. S. Deshmukh

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Prof. Ram Meghe Institute of Technology & Research, Badnera
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(Session 2021-22)

Course Number and Title: - Artificial Intelligence and Expert System (7IT05)
Name of Faculty: - Prof. N. S. Band
Semester :- VII **Section :-** A&B

Lecture No.	Planned Dates	Topic Name	Total hours
		Introduction to Course	
1	11/08/2021	Vision Mission of Institution, Vision Mission of our Department ,Objective of subject, Grading scheme, Text Books and Ref Books, Syllabus and Course Learning Outcomes (CLO),Application and importance of the Subject, Graduate Attributes	**01**
		Unit-1	
2	13/08/2021	Introduction to Artificial Intelligence, The AI Problems.	**08**
3	17/08/2021	The Underlying Assumption.	
4	18/08/2021	What is an AI Technique,	
5	20/08/2021	Problems, Problem Spaces and Search.	
6	23/08/2021	Problem Characteristics	
7	24/08/2021	Production Systems	
8	25/08/2021	Production System Characteristics	
9	27/08/2021	Issues in the Design of Search Programs	
		Unit-2	
10	30/08/2021	Heuristic Search Techniques:	**08**
11	31/08/2021	Generate-and-Test.	
12	01/09/2021	Hill Climbing.	
13	03/09/2021	Best-first Search, A* Algorithm	
14	08/09/2021	Problem Reduction, AND-OR Graphs.	
15	14/09/2021	The AO* Algorithm,	
16	15/09/2021	Constraint Satisfaction.	
17	17/09/2021	Means ends Analysis	

Prof.Ram Meghe Institute of Technology & Research, Badnera

Department of Mechanical Engineering

(Odd/Even Semester 2021-22)

Execution Plan

Name of Faculty:- S.I.Deshmukh Semester VIII Section: A/B/C

Subject Code: 8ME02 Subject Name: Refrigeration & A/c

Sr.No.	Date	Topics Covered	Sign. Of Faculty	Sign of HOD
1	01/02/22	Introduction to Ref. & VCRS.		
2	02/02/22	Analysis of VCR systems.		
3	04/02/22	Numericals on simple VCR.		
4	7/02/22	Numericals on VCR.		
5	8/02/22	Actual VCR & Ref. classification		
6	10/2/22	Properties of Ref.		
7	14/2/22	Introduction to multistage VCR		
8	15/02/22	Compound comp.		
9	17/02/22	Flash gas removal and Haskinter		
10	21/02/22	Complete compound VCRS.		
11	24/02/22	Multi evaporator systems.		
12	26/02/22	M.E.S. with individual expn.		
13	28/02/22	Cas-code systems.		
14	28/02/22	Numericals on Compound comp.		
15	2/03/22	Numericals on Multi exp. system		
16	3/3/22	Numericals.		
17	7/03/22	Psychometric properties of Air.		
18	8/3/22	Psychometric chart		
19	10/3/22	Different psy. processes.		
20	14/3/22	Mixing of two streams of air.		
21	16/03/22	Air-washers and human comfort		
22	17/3/22	Numericals.		
23	14/3/12	Numericals.		
24	15/3/22	Introduction to Ac systems.		
25	16/3/22	Window, split, central systems		
26	21/3/22	Year round A/c system.		

Odd/Even Semester 2021-22)

Execution Plan

Name of Faculty:- V. V. Kale Semester IV th Section: A/B/C A

Subject Code: 4ME03 Subject Name: Manufacturing Technology

Sr.No.	Date	Topics Covered	Sign. Of Faculty	Sign of HOD
27	23/3/22	Thermal process like EDM, WEDM, PAM (concept & applications)		
28	23/3/22	EDM, types of die-sinking, wire cut EDM, process parameters, advantages & applications.		
3				
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HOD
Dept. of Mechanical Engineering
P.R.M.I.T & R. Badnera

(Prof V V K)

Prof.Ram Meghe Institute of Technology &+ Research, Badnera

Department of Mechanical Engineering

(Odd/Even Semester 2021-22)

Execution Plan

Name of Faculty:- C. R. Bundale Semester VI Section: A/B/C Elective

Subject Code: _____ Subject Name: NES

Sr.No.	Date	Topics Covered	Sign. Of Faculty	Sign of HOD
1	14/2/22	Global and Indian energy scenario		
2	15/2/22	Need of Renewable energy, need of Renewable and non renewable energy sources, energy and environment		
3	16/2/22	Solar constant Definitions of basic earth-sun angles Types of Solar radiation		
4	21/2/22	Measurement of solar radiation using Pyrheliometer, Pyranometer and Sunshine Recorder		
5	22/2/22	Estimation of solar radiation intensity		
6	23/2/22	Low temperature applications: solar water heating, space heating, drying		
7	2/3/22	High temperature applications, dish and parabolic collectors. Central tower solar thermal power plants		
8	3/3/22	Solar energy storage and utilization: Methods of storage- mechanical, thermal, electrical storage systems		
9	8/3/22	Basic principle of power generation in a PV cell Types of photovoltaic cell Application of PV		
10	22/3/22	Brief outline of solar PV stand-alone system		
11	23/3/22	Storage battery and Balance of system		
12	24/3/22	Wind Energy Systems: Potential of wind electricity generation in India and current scenario		
13	29/3/22	Wind pattern and wind speed data Types of turbines Coefficient of Power, Betz limit		
14	29/3/22	Wind electric generators, Power curve Wind characteristics and site selection		
15	30/3/22	Windfarms for bulk power supply to grid		
16	30/3/22	Application for pumping		

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Dept. of Mechanical Engineering
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Name of Faculty:- S.M. Parofar(?) Semester 6 Section: [illegible]
Subject Code: ______ Subject Name: ORT

Sr.No.	Date	Topics Covered	Sign. Of Faculty	Sign of HOD
		unit - V		
23	27/3/22	Frequency Response Analysis		
24	28/3/22	concept & Drawing of FRA		
25	30/3/22	construction & procedure		
26	31/3/22	Numerical on FRA		
27	1/4/22	Numerical on FRA		
28	2/4/22	Numerical on FRA		
29	3/4/22	unit - VI		
30	3/4/22	Basic control action & controller.		
31	6/4/22	classification of industrial controller		
32	8/4/22	—— 11 —— proportional controller		
33	9/4/22	obtaining integral control action		
34	10/4/22	effect of integral & derivative controller		
0				
		unit - VI		
35	21/4/22	speed control system, prime mover		
36	27/4/22	system generator		
37	4/5/22	Automated speed system.		
38	6/5/22	Important system generator		
39	11/5/22	servo motor.		

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Department of Mechanical Engineering

(Odd/Even Semester 2021-22)

Execution Plan

Name of Faculty:- R. S. Sakordar Semester VI th Section: A/B/C B

Subject Code: 6ME05 Subject Name: Automobile Engg (open Elective)

Sr.No.	Date	Topics Covered	Sign. Of Faculty	Sign of HOD
01	11-02-22	Introduction to Automobiles		
02	17-02-22	Classification of Automobiles		
03	18-02-22	Chassis types & Basic Parts		
04	18-02-22	Engine Parts & Firing Order		
05	24-02-22	Introduction to SI & CI Engine		
06	25-02-22	Revision & Details above		
07	25-02-22	2-stroke & 4-strok SI Engine		
07	03-03-22	Fuel feed system, Role		
08	03-03-22	Air Filter & fuel filter		
09	04-03-22	MPFI & CRDI Engine		
10	09-03-22	CPU/MCU/Body control Unit		
11	10-03-22	Role of MCU in Fuel feed and Ignition System		
12	10-03-22	Cooling system, Types		
13	11-03-22	Anti freez Mixture		
14	11-03-22	Electrical System		
15	17-03-22	Battery, Battery Capacity		
16	17-03-22	Battery Rating.		
17	24-03-22	Starter Motor Drive		
18	25-03-22	Ignition System - Types		
19	25-03-22	Battery Ignition System		
20	31-03-22	Transmission Sys & Func^n		
21	01-04-22	Clutch Fuc^n & its Types.		
22	01-04-22	Single plate clutch		
23	07-04-22	Multi plate clutch		
24	08-04-22	Gear Box & its Types		

Execution Plan

Name of Faculty: R. S. Sakarkar Semester VI th Section: A/B/C B

Subject Code: 6ME05 Subject Name: Automobile Engg (Open Elective - II)

Sr.No.	Date	Topics Covered	Sign. Of Faculty	Sign of HOD
25	08-04-22	Sliding Mesh Gear Box		
26	21-04-22	Constant Mesh Gear Box		
27	22-04-22	Gear Box Drive Arr't according		
28	22-04-22	Types of G.B & its Adv.		
29	28-04-22	Breaking System		
30	28-04-22	Brakes Types according to Appl".		
31	29-04-22	Mech & Hydraulic Breakes		
32	29-04-22	Steering System; Power steering		
33	05-05-22	Alignment system, Toe in Out		
34	06-05-22	Balancing, KPI, Caster Angle.		
35	06-05-22	Casteter Angle/Camber Angle		
36	12-05-22	Suspension System; Types		
37	13-05-22	Shock absorber & Uses		
38	13-05-22	Telescopic shock absorber		
39	13-05-22	Role of Lubricating in Automobile		
40	20-05-22	Types of Lubricant SAE Std.		
41	20-05-22	Dry and Wet Sump Lubrication & Adv & its Dis Adv.		

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Department of Mechanical Engineering

(Odd/Even Semester 2021-22)

Execution Plan

Name of Faculty:- A.S. Deshmukh Semester 4th Section: A/B/C C

Subject Code: 4ME06 Subject Name: Hydraulic & Pneumatic systems

Sr.No.	Date	Topics Covered	Sign. Of Faculty	Sign of HOD
		Unit-I		
1	14/03/22	Introduction of HPMS	ASD	
2	11/03/22	What is hydraulic turbines, classification	ASD	
3	12/03/22	Theory of Impulse & Reaction turbine	ASD	
4	12/03/22	Pelton wheel-turbine theory	ASD	
5	22/03/22	Pelton wheel turbine expression	ASD	
6	23/03/22	Problems, based on Pelton wheel	ASD	
7	23/03/22	Francis turbine theory	ASD	
8	24/03/22	Francis turbine expression	ASD	
9	24/03/22	Numericals based on Francis	ASD	
10	25/03/22	Kaplan theory & expression	ASD	
11	28/03/22	Numericals based on Kaplan turbine	ASD	
12	31/03/22	What is draft tube & its importance	ASD	
13	7/04/22	Unit-II Introduction to centrifugal Pump	ASD	
14	8/04/22	Basic theory & Classification of C.P	ASD	
15	9/04/22	Main components of a centrifugal pump	ASD	
16	21/04/22	Minimum speed for starting a Centi pump	ASD	
17	22/04/22	Numericals based on Work done	ASD	
18	23/04/22	Numericals based on efficiencies	ASD	
19	28/04/22	What is NPSH & Cavitation in Pumps	ASD	
20	29/04/22	Unit-III Introduction to Axial flow pumps	ASD	
21	30/04/22	Basic theory & operation of axial flow pump	ASD	
22	5/05/22	Air lift pump, jet pump & theory & operations	ASD	
23	6/05/22	Hydraulic Ramp basic theory & operations	ASD	
24	7/05/22	What is CFD & its importance	ASD	
25	12/05/22	Need Necessity, limitations of CFD	ASD	
26	18/05/22	Unit-IV Reciprocating Pump Introduction	ASD	

Odd/Even Semester 2021-22)

Execution Plan

Name of Faculty:- A.S. Deshmukh Semester 4th Section: A/B/C | C |

Subject Code: 4MEOS Subject Name: Hydraulic & Pneumatic Systems

Sr.No.	Date	Topics Covered	Sign. Of Faculty	Sign of HOD
27	14/05/22	expression for reciprocating pump.	ASD	
28	14/05/22	numericals based on above topic	ASD	
29	20/05/22	Slip, indicator diagram definations	ASD	
30	21/05/22	what is effect of acceleration & air vessel	ASD	
31	23/05/22	comparison of centrifugal pump & reciprocating pump.	ASD	
32	24/05/22	expression & Numericals based on performance characteristics	ASD	
33	24/05/22	UNIT V Introduction to diff. compressible flows	ASD	
34	25/05/22	Introduction to compressible flow (Def^n)	ASD	
35	25/05/22	perfect gas relationship expression	ASD	
36	26/05/22	Different speed of sound wave	ASD	
37	26/05/22	what is mach number, exp^n & numericals	ASD	
38	27/05/22	isothermal & isentropic flows	ASD	
39	27/05/22	shock waves theory & its operations	ASD	
40	28/05/22	UNIT VI Hydraulic machines types accumulator	ASD	
41	30/05/22	what is Hydraulic intensifier, Hydraulic press	ASD	
42	30/05/22	Hydraulic crane, lift, operations & working	ASD	
43.	31/05/22	Int. to Hydraulic couplings & its working	ASD	

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Department of Mechanical Engineering

(Odd/Even Semester 2021-22)

Execution Plan

Name of Faculty:- V.V. Kale Semester IVth Section: A/B/C A

Subject Code: 4ME03 Subject Name: Manufacturing Technology

Sr.No.	Date	Topics Covered	Sign. Of Faculty	Sign of HOD
1	14/3/22	Introduction to Machining Processes, Metal cutting	VK	
2	24/3/22	Mechanics of Metal cutting, Tool materials.	VK	
3	25/3/22	Tool geometry, cutting tool classification, Tool Life	VK	
4	30/3/22	Tool wear, Calculations of cutting forces, Heat generation Zones.	VK	
5	01/4/22	Machinability, Cutting Fluids, Types of chips	VK	
6	06/4/22	Chip Thickness ratio, Merchant circle.	VK	
7	08/4/22	Construction, parts & operations on Lathe	VK	
8	09/4/22	Accessories of centre Lathe, Intro to Capstan & turret Lathe	VK	
9	12/4/22	Indexing, Bar feeding Mechanism & differences with centre lathe & Capstan etc.	VK	
10	20/4/22	Machine tool classification, Numerical approach	VK	
11	22/4/22	Taper turning, Screw cutting, Other oprt on lathe	VK	
12	23/4/22	Concept of CNC, working principle & CNC turning oprt	VK	
13	27/4/22	Introduction to Drilling Operations and drilling m/c	VK	
14	04/5/22	Drilling m/cs, general purpose, MAG and Special purpose	VK	
15	06/5/22	Introduction & Types of Boring m/cs, Jig boring	VK	
16	09/5/22	Introduction to Broaching & its types, Broach terminology	VK	
17	11/5/22	Milling & milling operations	VK	
18	12/5/22	Calculations for machining time in milling	VK	
19	12/5/22	Types of milling m/cs & milling cutters & terminology	VK	
20	13/5/22	Dividing head, Compound & differential Indexing	VK	
21	14/5/22	Gear production & Gear producing m/cs.	VK	
22	17/5/22	Grinding & Grinding m/cs, Bench grinders	VK	
23	18/5/22	Surface & centreless grinders & types	VK	
24	19/5/22	Grinding wheels: Bonds & Abrassive modifications	VK	
25	20/5/22	Study of various parts & oprts of shaper, planer & slotter.	VK	
26	21/5/22	Introduction to Unconventional m/c's & diff. Mechanical processes	VK	

Odd/Even Semester 2021-22)

Execution Plan

Name of Faculty:- _____ Semester____ Section: A/B/C

Subject Code: _____ Subject Name: _____

Sr.No.	Date	Topics Covered	Sign. Of Faculty	Sign of HOD
27	24/3/22	SHF, RSHF, GSHF. calculations.		
28	28/3/22	ESHF calculation.		
29	4/04/22	cooling load calculation.		
30	5/4/22	Intro to ref. components & control		
31	7/4/22	comp., exp^n val types.		
32	12/04/22	MCQ		
33	19/04/22	MCQ.		
34	21/04/22	Practice Prob.		
35	26/4/22	Numericals		

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Department of Mechanical Engineering

(Odd/Even Semester 2021-22)

Execution Plan

Name of Faculty:- Dr. M. V. GUDADHE Semester: VI Section: A/B/C A B & C

Subject Code: BMEO4 Subject Name: TOOL ENGG. (Prof. Elective)

Sr.No.	Date	Topics Covered	Sign. Of Faculty	Sign of HOD
1	14/2/22	Introduction to Jigs & fixtures.		
2	15/2/22	Location system and clamping Design		
3	16/2/22	Principles of clamping, Types, Power clamps		
4	21/2/22	Tool Guiding and Tool setting		
5	22/2/22	Types of Drill Jigs & their construction.		
6	23/2/22	Types of fixtures & Their construction.		
7	28/2/22	students Not available.		
8	1/3/22	Holiday (Mahashivratri)		
9	7/3/22	students Not available.		
10	8/3/22	Design of Jigs: - Box, Turnover & Post jigs.		
11	9/3/22	—— 11 ——		
12	10/3/22	Design of Milling & Broaching fixture		
13	14/3/22	students off (for Holy)		
14	15/3/22	—— 11 ——		
15	16/3/22	—— 11 ——		
16	21/3/22	students Not available		
17	22/3/22	Design of Turning, welding & Assembly fix.		
18	23/3/22	ON Leave		
19	24/3/22	Introduction to Press Working - Operations		
20	28/3/22	Presses, Theory of sheet metal cutting.		
21	29/3/22	force calculation, clearance imparting		
22	30/3/22	Methods of cutting force reduction.		
23	31/3/22	Theory of Bending, Spring Back action		
24	4/4/22	Bending types & dies, Drawing operation		
25	5/4/22	Drawing force, holding pressure etc.		
26	6/4/22	strip layout, Design of Press Tools.		

Odd/Even Semester 2021-22)

Execution Plan

Name of Faculty: Dr. M. V. Gudadhe Semester VI Section: A/B/C A,B,C

Subject Code: 6ME04 Subject Name: Tool Engg - Professional Elective.

Sr.No.	Date	Topics Covered	Sign. Of Faculty	Sign of HOD
27	11/4/22	students on common off	[signature]	[signature]
28	12/4/22	—— 11 ——	[signature]	
29	13/4/22	—— 11 ——	[signature]	
30	18/4/22	Types of Die constructions, cutting dies.	[signature]	
31	19/4/22	Blanking/Punching Die Design.	[signature]	
32	20/4/22	Bending & forming Die Design.	[signature]	
33	21/4/22	- students Not available.	[signature]	
34	25/4/22	Design of compound & combination dies	[signature]	
35	26/4/22	—— 11 ——	[signature]	
36	27/4/22	Progressive and other dies.	[signature]	
37	28/4/22	Design of Drawing Die.	[signature]	
38	2/5/22	students Not available	[signature]	
39	4/5/22	single point cutting tool, &-i	[signature]	
40	5/5/22	Nomenclature. Design of S.P.C.Tool.	[signature]	
41	9/5/22	form tools & its types	[signature]	
42	10/5/22	Design of form tools	[signature]	
43	11/5/22	multipoint cutting Tools - Drill, Reamers	[signature]	
44	12/5/22	multipoint cutting Tools - Broach milling cutters.	[signature]	

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Prof.Ram Meghe Institute of Technology & Research, Badnera

Department of Mechanical Engineering

(~~Odd~~/Even Semester 2021-22)

Execution Plan

Name of Faculty: Dr. H.M. Deshmukh Semester IV Section: A/B/C C

Subject Code: 4ME 01 Subject Name: Material Science

Sr.No.	Date	Topics Covered	Sign. Of Faculty	Sign of HOD
1	14/3/2022	Introduction to Process, physical & mechanical metallurgy		
2	15/3/2022	Selection of matl. crystal structures & systems, allotropy polymorphism		
3	16/3/2022	Bravais lattice, Simple Cubic, BCC, FCC HCP structures Atomic Packing factor		
4	21/3/2022	miller indices for crystallographic planes & dirns		
5	22/3/2022	Solid soln, its types Hume Rothery rules, Nucleation & growth		
6	23/3/2022	Solidification of metals in ingot mould & Gibbs phase rule		
7	28/3/2022	Cooling curves for pure metals Binary Eutectic & Eutectic alloys		
8	29/3/2022	Phase or Equilibrium diagram steps in plotting phase diagram lever rule		
9	30/3/2022	Microconstituents, phases & critical temperatures on Fe-C diagram		
10	04/4/2022	Peritectic, Eutectic & Eutectoid reacn on Fe-C diag. Cooling of alloys of Fe-C with various compositions		
11	05/4/2022	Weight % calculation of microconstituents & phases for various compositions of alloys of Fe-C Carbon		
12	06/4/2022	Introduction to composite materials, Types, advantages & applications of composite materials		
13	11/4/2022	Introduction to Heat treatment of steels, Meaning & purpose of heat treatment		
14	12/4/2022	Stress relief annealing, spheroidising, Process and full annealing		
15	13/4/2022	Normalising, stages of Hardening process		
16	18/4/2022	Martensite transformation, Retained austenite & sub zero treatment Quenching media		
17	19/4/2022	Low, medium & High temperature tempering Introduction to TTT diagrams		
18	20/4/2022	Superimposition of continuous cooling curves on S-curve Austempering, Martempering, Pearlite, bainite transformation		
19	25/4/2022	Purpose of alloying, classification of alloy steel & alloying elements effect of alloying elem on eutectoid composition		
20	26/4/2022	effect of alloying elem on Eutectoid temp. & shape of S curve alloying elems & their effect on properties of steel		
21	27/4/2022	Hadfield manganese steel, Rail locoing steel HCHC steels		
22	02/5/2022	Stainless steels - ferritic, martensitic, austenitic S.S. weld decay in S.S. HSS & its heat treatment		
23	04/5/2022	Introduction to cast iron, factors governing condition carbon in C.I. Maurer's diagram.		
24	09/5/2022	Solidification of white C.I. Constitution & properties of white C.I.		
25	10/5/2022	Constitution & properties of Grey, nodular and malleable C.I. & their applications		
26	11/6/2022	Types, properties & uses of Brasses & bronzes		

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~~Odd~~/Even Semester 2021-22)

Execution Plan

Name of Faculty:- Dr H. M. Deshmukh Semester IV Section: A/B/C C

Subject Code: 4ME01 Subject Name: Material Science

Sr.No.	Date	Topics Covered	Sign. Of Faculty	Sign of HOD
27	17/5/2022	Powder metallurgy - application, advantages, metal production methods, steps in powder metallurgy	HM	
28	17/5/2022	stages of sintering, manufacture of porous bearings & cemented carbide tip tools.	HM	
29	18/5/2022	Hot & Cold working, study of stress-strain curves, Luder band & work Hardening, strain Ageing	HM	Dept. of Mechanical Engineering PRMIT & R, Badnera
30	19/5/2022	Recovery, Recrystallization, grain growth, metallurgical factors affecting mechanical working processes	HM	
31	23/5/2022	methods of surface hardening: carburizing, Nitriding, cyaniding, Flame & Induction hardening	HM	

Prof. Ram Meghe Institute of Technology & Research, Badnera

Department of Mechanical Engineering

(Odd/Even Semester 2021-22)

Execution Plan (CS-2022)

Name of Faculty: Dr. C. R. Patil Semester: VI Section: A/B/C A

Subject Code: 6ME02 Subject Name: Dynamics of Machine

Sr.No.	Date	Topics Covered	Sign. Of Faculty	Sign of HOD
1	7/2/2022	(online lecture) Theory of Lubrication		
2	8/2/2022	〃 types, properties of 〃		
3	9/2/2022	〃 mechanism of Lubrication		
4	10/2/	〃 Hydrostatic, Hydrodynamic, thick film, thin		
5	14/2	(offline lect) what is SFA & DF Analysis		
6	15/2	〃 Superposition thm, equilibrium conditions		
7	16/2	(Tutorial) Steps of SFA		
8	17/2	problems of SFA		
9	22/2	〃 SFA		
10	23/2	what is flywheel, ? function of flywheel		
11	24/2	T-θ diagram of 2stroke, 4stroke, engine		
12	25/2	〃 multicylinder		
13	2/3/2022	〃 & max. fluct of energy		
14	4/3/2022	(Tu.) problems of otto cycle flywheel		
15	7/3	〃 punching m/c 〃		
16	8/3	〃 〃		
17	9/3	D.F.A — problems.		
C.Test-I	14/03/2022, 15/03/2022 & 16/03/2022 → TEST-I schedule			
	21/03/2022 → CL			
18	22/3/ (Tu)	Study of vehicle dynamics		
19	23/3/	Various resistance in vehicles		
20	25/3/	Power demand in Vehicles		
21	28/3/	problems of Vehicle dynamics		
22	29/03	〃 〃		
23	30/3/	Gyroscope & its couple,		
24	1/4/2022	(Tu.) 〃 effect in Aeroplane		

Unit-I

Unit-II

Unit-III

contd

01/02

Odd/Even Semester 2021-22)

Execution Plan

(CS-2022)

Name of Faculty:- C. R. Patil Semester VI Section: A/B/C A

Subject Code: 6MO2 Subject Name: Dynamics of Machine

Sr.No.	Date	Topics Covered	Sign. Of Faculty	Sign of HOD
25	19/4	(Tu) Gyroscope effect in ship & 2 wheeler		
26	19/4	Extra 〃 〃 in 4 wheeler		
27	19/4	Extra problems of Gyroscope		
28	20/4	〃 〃 Gyroscope		
29	20/4	Extra 〃 〃 〃		
30	22/4	& longitudinal vibration		
31	22/4	Extra problems of longitudinal 〃		
32	25/4	〃 〃 〃		
33	26/4	(Tu) Transverse of Vibration		
34	27/4	problems of transverse/torsional		
35	29/4	〃 〃 torsional vibr.		
36	29/4	Extra problems of 〃		
37	4/5/2022	〃 〃		
38	9/5	Balancing static & dynamics		
39	10/5	problem of dynamic balancing		
40	10/5	Swaying Couple, hammer blow, fract effect problem		
41	12/5	C.T. II		

Unit-III

Unit-IV

Unit-V

Unit-VI

C-T-II

0702

Department of Mechanical Engineering

(Odd/Even Semester 2021-22)

Execution Plan (CS-2022)

Name of Faculty:- Dr. C. R. Patil Semester VI Section: A/B/C → A

Subject Code: 6MEO2 Subject Name: Dynamics of Machine

Sr.No.	Date	Topics Covered	Sign. Of Faculty	Sign of HOD
1	7/2/2022	(online lecture) Theory of Lubrication		
2	8/2/2022	〃 types, properties of 〃		
3	9/2/2022	〃 mechanism of Lubrication		
4	10/2/	〃 Hydrostatic, Hydrodynamic, thick, thin film		
5	14/2	(offline lect.) what is SFA & DF Analysis		
6	15/2	〃 superposition thm, equilibrium curve		
7	16/2	(Tutorial) Steps of SFA		
8	17/2	problems of SFA		
9	22/2	〃 SFA		
10	23/2	what is flywheel, ? function of flywheel		
11	24/2	T-θ diagram of 2stroke, 4stroke, engine		
12	25/2	〃 multicylinder		
13	2/3/2022	〃 & max fluct of energy		
14	4/3/2022	(Tu.) problems of otto cycle flywheel		
15	7/3	〃 punching mc 〃		
16	8/3	〃 〃		
17	9/3	D.F.A — problems		
	14/03/2022, 15/03/2022 & 16/03/2022 → TEST-I schedule			
	21/03/2022 → CL			
18	22/3/(Tu)	Study of vehicle dynamics		
19	23/3/	Various resistance in vehicles		
20	25/3/	Power demand in Vehicles		
21	28/3/	problems of Vehicle dynamics		
22	29/03	〃 〃		
23	30/3/	Gyroscope & its couple		
24	1/4/2022 (Tu.)	〃 effect in Aeroplane		

Unit-I

Unit-II

Test-I

Unit-III

contd

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Department of Mechanical Engineering

(Odd/Even Semester 2021-22)

Execution Plan

Name of Faculty:- S. S. Deshmukh Semester IV Section: A/B/C C

Subject Code: 4ME03 Subject Name: Manufacturing Technologies / Manufacturing

Sr.No.	Date	Topics Covered	Sign. Of Faculty	Sign of HOD
1	22/03/22	Introduction, methods of metal cutting, differentiation		
2	23/03	Types of Chips & Tool mat.		
3	24/03	Cutting forces & Chip-thickness ratio		
4	29/03	machinability, Cutting fluids		
5	30/03	Tool life & Tool wears		
6	05/04	Introduction to Lathe, Types		
7	06/04	Parts of Lathe		
8	19/04	Speed changing & Wade gear arrangement		
9	20/04	All gear drive, Half nut mechanism		
10	21/04	Taper turning attachments		
11	26/04	Capstan & Turret Lathe, Comparison		
12	28/04	Facing & Bar feeding mechanism, Introduction		
13	04/05	Types, specification & parts of drilling		
14	05/05	Types of drilling m/cs & parts		
15	10/05	Types of Boring m/cs		
16	11/05	operations on Boring & drilling m/c		
17	12/05	Reaming & Broaching.		
18	17/05	Grinding, Introduction & Types		
19	18/05	Types of grinding m/cs		
20	27/05	Bonds & abrasives, Loading, glazing & dressing		
21	28/05	Milling & its Types		
22	03/06	Types of Milling cutters		
23	04/06	Shaper & planner		

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Department of Mechanical Engineering

(Odd/Even Semester 2021-22)

Execution Plan

Name of Faculty:- Dr. S.G. Dahaley Semester Eighth Section: A/B/C B

Subject Code: BME84 Subject Name: OR&T

Sr.No.	Date	Topics Covered	Sign. Of Faculty	Sign of HOD
1	14/2/22	Introduction to OR, Definitions, Characteristics		
2	15/2/22	Advantages, Limitations and Applications of OR		
3	16/2/22	Linear Programming Problems, Graphical Method		
4	21/2/22	LPP Graphical Method of Solution, Problems		
5	22/2/22	LPP Duality, Primal-dual problems		
6	23/2/22	Transportation - Initial Solution Methods		
7	25/2/22	Transportation - Optimal Solution, MODI method		
8	2/3/22	Variations in Transportation Problems		
9	8/3/22	Assignment Problems, Hungarian methods		
10	22/3/22	Assignments Problems, Maximization Problems		
11	25/3/22	Network models, Construction & Time Estimates		
12	30/3/22	PERT Analysis & Problems		
13	8/4/22	CPM Analysis & Problems		
14	19/4/22	Sequencing Models & Problems		
15	19/4/22	Sequencing Problems		
16	20/4/22	Dynamic Programming Problems		

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Department of Mechanical Engineering

(Odd/Even Semester 2021-22)

Execution Plan

Name of Faculty:- V. D. Tonge Semester VIII Section: A/B/C

Subject Code: BME 03 Subject Name: IC Engines

Sr.No.	Date	Topics Covered	Sign. Of Faculty	Sign of HOD
1	1/2/22	Basic of IC Engines	VDTonge	
2	2/2/22	Details of 2stroke & 4 stroke Engines	VDTonge	
3	8/2/22	Air standard cycles	VDTonge	
4	9/2/22	Fuel Air cycles	VDTonge	
5	11/2/22	Variation in specific Heat & its applab	VDTonge	
6	15/2/22	Review of losses	VDTonge	
7	15/2/22	Neumericals	VDTonge	
8	16/2/22	Numericals	VDTonge	
9	18/2/22	Conventional fuel for IC Engines	VDTonge	
10	22/2/22	Requirement, fuel Additive	VDTonge	
11	23/2/22	Various Alternative fuels	VDTonge	
12	25/2/22	Fuel Injection System	VDTonge	
13	4/3/22	Fuel pump & its working	VDTonge	
14	8/3/22	Fuel feed system	VDTonge	
15	9/3/22	Study of Injectors & Nozzles	VDTonge	
16	11/3/22	Bosch type fuel pump	VDTonge	
17	15/3/22	Combustion in SI engines	VDTonge	
18	16/3/22	Stages of combustion	VDTonge	
19	22/3/22	Factor influencing various stages	VDTonge	
20	23/3/22	Types of Combustion, Detonation	VDTonge	
21	25/3/22	Rating of fuel	VDTonge	
22	25/3/22	Types of Combustion Chambers	VDTonge	
23	29/3/22	Combustion in CI engines	VDTonge	
24	30/3/22	Stages of combustion in CI engines	VDTonge	
25	1/4/22	Delay Period & factors affecting it.	VDTonge	
26	5/4/22	Diesel Knock, cetane Rating	VDTonge	

Odd/Even Semester 2021-22)

Execution Plan

Name of Faculty:- N. D. Tonge Semester VIII Section: A/B/C

Subject Code: BMEO3 Subject Name: IC Engines

Sr.No.	Date	Topics Covered	Sign. Of Faculty	Sign of HOD
27	6/4/22	Requirements of Combustion chamber		
28	8/4/22	Turbulance in CI engine		
29	12/4/22	Combustion Chambers in CI engines		
30	13/4/22	Evaluation of various performance parameters		
31	13/4/22	Heat balance sheet		
32	20/4/22	Excess air calculation.		
33	22/4/22	Friction power calculation		
34	26/4/22	Supercharging : basic Principles		
35	27/4/22	Numericals		
36	29/4/22	Numericals		
37	4/5/22	Emissions from IC Engines		
38	4/5/22	Review, Their effect on human Health		
39	6/5/22	Study of emission Norms		
40	10/5/22	IC engines Trend trends		
41	11/5/22	Injection System		
42	13/5/22	Variable Valve timing engines		

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Department of Mechanical Engineering

(Odd/Even Semester 2021-22)

Execution Plan

Name of Faculty: Dr. Shashank B. Thakre Semester Section: A/B/C A

Subject Code: 4ME03 . Subject Name: Energy Conversion-I

Sr.No.	Date	Topics Covered	Sign. Of Faculty	Sign of HOD
1	1/2/22	Rankine Cycle.		
2	3/2	Intro. Power plant layout.		
3	4/2	Problems		
4	7/2	Problem.		
5	8/2	Problems.		
6	10/2	Low Press. Boilers.		
7	11/2	High Pressure Boilers.		
8	14/2	Desi. Chimney draught-d height		
9	15/2	Problems		
10	17/2	Problems.		
11	18/2	Equivalent evaporation Concept		
12	21/2	Boiler mounting & Accessories		
13	22/2	Problems		
14	24/2	Problems		
15	25/2	Problems.		
16	3/3	Problems		
17	4/3	Intro. to Condensers.		
18	7/3	low level Jet Condenser		
19	8/3	High level surface Condenser.		
20	10/3	Problem Eqn of Practical pressure		
21	11/3	Derivation for vacuum reqd.		
22	15/3	Problem.		
23	4/3	Nozzel Introduction		
24	22/3	Problem		
25	24/3	Problems.		
26	25/3	Intro. to Turbines.		

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Odd/Even Semester 2021-22)

Execution Plan

Name of Faculty:- Dr. Shashank Thakre Semester IV Section: A/B/C A

Subject Code: 4ME03 Subject Name: EC-I

Sr.No.	Date	Topics Covered	Sign. Of Faculty	Sign of HOD
27	1/4/22	Simple & Reaction Turbines.	[signature]	[signature]
28	4/4/22	Problems	[signature]	
29	7/4/22	Problems.	[signature]	
30	21/4/22	Problem -	[signature]	
31	22/4/22	Compounding & Governing.	[signature]	

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Department of Mechanical Engineering

(Odd/Even Semester 2021-22)

Execution Plan

Name of Faculty: Saurabh S Bhange Semester: IV Section: A/B/C A

Subject Code: _____ Subject Name: Material Science

Sr. No.	Date	Topics Covered	Sign. Of Faculty	Sign of HOD
1	15/3/22	Introduction to Metallurgy		
2	16/3/22	Classification of Materials		
3	22/3/22	Structure of metals, Form of alloy		
4	22/3/22	Solid Solution, Lever rule		
5	23/3/22	Solidification of pure metal		
6	23/3/22	Intro to binary equi. diag		
7	23/3/22	Study of Fe-C diagram		
8	30/3/22	Study of Fe-C diagram		
9	30/3/22	Critical temperatures, Microstructure		
10	5/4/22	Estimation of Carbon content		
11	5/4/22	Composite material		
12	6/4/22	Alloy Steels & its purpose		
13	6/4/22	Classi. of alloying material		
14	12/4/22	Effect of alloying elements		
15	25/4/22	& OHNS steels, HSS steel		
16	26/4/22	Heat treatment		
17	26/4/22	Stainless steel types		
18	26/4/22	Annealing, Normalizing, Tempering		
19	27/4/22	S-Curve & its superimposition		
20	4/5/22	Bainite & martensite transformation		
21	7/5/22	Quenching media, Austempering		
22	3/5/22	Martempering & patenting		
23	10/5/22	Retained Austenite, Hardenability		
24	10/5/22	Types of CI		
25	11/5/22	Maweers diagram, Malleabilizing		
26	12/5/22	Solidificatn of CI		

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Odd/Even Semester 2021-22)

Execution Plan

Name of Faculty:- Prof. S. S. Bhagat Semester IV Section: A/B/C

Subject Code: ______ Subject Name: Material Science

Sr.No.	Date	Topics Covered	Sign. Of Faculty	Sign of HOD
26	14/5/22	Nodular & malleable CI		
27	20/5/22	Intro to Brasses & Bronzes		
28	20/5/22	Imp. alloying elements.		
29	20/5/22	Carburizing, Nitriding, Cyaniding		
30	21/5/22	Flame & Indu. hardening		Head Dept. of Mechanical Engineering SSBT's COET Bambhori
31	21/5/22	Hot & Cold Working		
32	23/5/22	Recovery, recrystalisation		
33	23/5/22	Deformation mechanism		
34	24/5/22	Intro to Powder Metallurgy		
35	24/5/22	Methods of powder production		

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Department of Mechanical Engineering

(Odd/Even Semester 2021-22)

Execution Plan

Name of Faculty: H. D. Patil Semester 8th Section: A/B/C A

Subject Code: Subject Name: Automobile Engg

Sr.No.	Date	Topics Covered	Sign. Of Faculty	Sign of HOD
1	7/2	[I] Classification of Automobile	hp	
2	8/2	chasis types, Power Unit functions	hp	
3	14/2	locations Power for propulsion, engine mounting	hp	
4	15/2	engine Parts - types, construction & functions	hp	
5	16/2	Multiple cylinder engines	hp	
6	21/2	firing order	hp	
7	22/2	[II] fuel feed system, fuel Pump	hp	
8	4/3	fuel filter	hp	
9	7/3	MPFI & CRDI	hp	
10	11/3	Cooling System & its types	hp	
11	21/3	Water Pump & Radiators	hp	
12	22/3	Temp. Indicators	hp	
13	25/3	Antifreeze mixtures	hp	
14	28/3	[III] Electrical system	hp	
15	1/4	Battery Capacity & ratings	hp	
16	4/4	Bendix Drive	hp	
17	5/4	overrunning clutch drive	hp	
18	8/4	Battery Coil Ignition system	hp	
19	11/4	Electronic ignition system	hp	
20	12/4	[IV] Transmission system layout	hp	
21	18/4	Types of Clutch	hp	
22	19/4	Sliding Mesh Gearbox	hp	
23	23/4	Constant Mesh Gearbox	hp	
24	25/4	Differential	hp	
25	26/4	Torque tube drive	hp	
26	27/4	Hotchkiss drive	hp	

Odd/Even Semester 2021-22)

Execution Plan

Name of Faculty:- H.D. Patil Semester 6th Section: A/B/C A

Subject Code: Subject Name: Automobile Engg

Sr.No.	Date	Topics Covered	Sign. Of Faculty	Sign of HOD
27	28/4	[V] Braking System	hp	
28	29/4	Types of braking system	hp	
29	2/5	Types of Steering system	hp	
30	3/5	Master cylinder	hp	
31	3/5	wheel balancing & alignment.	hp	
32	4/5	Camber & caster & toe-in	hp	
33	5/5	Power steering	hp	
34	6/5	[VI] Suspension System	hp	
35	9/5	Shock absorbers.	hp	
36	10/5	Types of lubricants	hp	
37	11/5	chasis lubrication.	hp	
38	17/5	Types of lubrication system	hp	
39	18/5	Crankcase Ventilation	hp	
40	19/5	Engine lubrication	hp	

Prof.Ram Meghe Institute of Technology & Research, Badnera

Department of Mechanical Engineering

(Odd/Even Semester 2021-22)

Execution Plan

Name of Faculty: T. K. Lawande Semester: VI Section: A/B/C B

Subject Code: CME01 Subject Name: D M E

Sr.No.	Date	Topics Covered	Sign. Of Faculty	Sign of HOD
1	14/02/22	Introduction to Design	✓	
2	15/02/22	Stress in atomic design	✓	
3	16/02/22	Riveted joint theory	✓	
4	18/2/22	Design procedure & numericals on it	✓	
5	18/2/22	Introduction to welded joints	✓	
6	21/2/22	Design procedure of welded joint	✓	
7	23/2/22	Numericals on welded joints	✓	
8	24/2	Introduction to Hooks & clamp	✓	
9	25/2	Numericals on Hooks & c-clamp	✓	
10	02/03	Introd. to knuckle joint	✓	
11	02/03	Design procedure of knuckle jt.	✓	
12	07/03	Numericals on knuckle jt.	✓	
13	08/03	Introduction to springs	✓	
14	09/03	Design procedure of spiral & leaf spring	✓	
15	21/3	Numericals on springs	✓	
16	22/3	Introduction to power screw	✓	
17	23/3	Design concept & procedure of P.S.	✓	
18	28/3	Numericals on power screw	✓	
19	29/3	Introduction to Shaft	✓	
20	04/04	Design procedure of shaft	✓	
21	05/04	Numericals on shaft	✓	
22	06/04	Numericals on shaft	✓	
23	18/04	Introduction to couplings	✓	
24	19/04	Design of rigid couplings	✓	
25	20/04	Design of flexible coupling	✓	
26	25/04	Numericals on couplings	✓	

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Department of Mechanical Engineering
PRMIT & R, Badnera

Odd/Even Semester 2021-22)

Execution Plan

Name of Faculty:- T. K. Lawanda Semester VI Section: A/B/C B

Subject Code: 6MEO1 Subject Name: DME

Sr.No.	Date	Topics Covered	Sign. Of Faculty	Sign of HOD
27	8/04/22	Numericals on couplings		
28	21/4/22	Introd. to bearings		
29	27/4/22	Design procedure for Journal bear		
30	04/05/22	Numericals on journal bearg		
31	09/5/22	Selection procedure for Anti friction bearing		
32	10/05/22	Numericals on anti friction bearg		
33	11/05/22	— 11 —		
34	16/5/22	Introd. to Design of IC engine parts		
35	17/5/22	Design of Connecting rod		
36	18/5/22	Design of Flywheel		

Prof. Ram Meghe Institute of Technology & Research, Badnera

Department of Mechanical Engineering

(Odd/Even Semester 2021-22)

Execution Plan

Name of Faculty:- Dr. A D Shirsat Semester 4th Section: A/B/C B

Subject Code: 4MEO5 Subject Name: Hydraulics & Pneumatic Systems

Sr.No.	Date	Topics Covered	Sign. Of Faculty	Sign of HOD
1	15/2/22	Basics of fluid		
2	23/3/22	properties of fluid, Branches FM		
3	24/3/22	Introduction to turbines		
Extra 4	29/3/22	schematic of hydro electric power plant		
5	31/3/22	Losses & heads in turbine		
Extra 6	4/4/22	Turbine classification, Intro to pelton wheel		
7	6/4/22	pelton wheel parts, velocity triangle diagram		
8	7/4/22	Numerical on pelton wheel		
9	8/4/22	——— 11 ———		
10	11/4/22	Introduction to Reaction turbine		
11	20/4/22	Numericals on ——11——		
12	22/4/22	Francis turbine & Numericals		
13	25/4/22	Centrifugal pump & its working		
14	28/4/22	parts & classification of C.P.		
15	29/4/22	min speed of C.P.		Head of the Mechanical Engineering PRMIT & R, Badnera
16	4/5/22	Multistage C.P.		
17	6/5/22	min/max speed, cavitation NPSH		
18	11/5/22	Numericals		
19	13/5/22	Ram pump, Axial flow pump, CFD		
20	19/5/22	Reciprocating pump.		
21	20/5/22	Indicater diagram & numericals		
22	23/5/22	min speed of R.P.		
23	24/5/22	Hydraulic Crane, Lift, torque convertor		

Prof.Ram Meghe Institute of Technology & Research, Badnera

Department of Mechanical Engineering

(Odd/Even Semester 2021-22)

Execution Plan

Name of Faculty:- Prof. S A Gedam Semester 8th Section: A/B/C A, B, C

Subject Code: _____ Subject Name: Robotics

Sr.No.	Date	Topics Covered	Sign. Of Faculty	Sign of HOD
1	14/2	[I] Introduction, Automation & RBT		
2	15/2	Appln, Robot anatomy & Confi		
3	18/2	Joint type in RBT		
4	21/2	Robot Wrist, Joint Notation		
5	22/2	Robot work volume.		
6	24/2	Robot specification.		
7	28/2	[II] Classification of End Effector		
8	02/3	Mechanical Grippers.		
9	03/3	hooking & lifting Grippers		
10	07/3	Plastic, vacuum cup, Electrical		
11	08/3	Internal & External Gripper		
12	10/3	Design Consideration in Gripper.		
13	21/3	[III] pneumatic power drives		
14	22/3	hydraulic system.		
15	24/3	Electric Drives.		
16	28/3	Robot control system		
17	29/3	Servo & non servo system		
18	31/3	Robot control & Programming method		
19	4/4	[IV] Sensors Features		
20	5/4	Contact type Sensors		
21	7/4	Wrist force sensors.		
22	11/4	Binary & Analog sensors		
23	12/4	Artificial skin, force		
24	18/4	torque, encoders.		
25	19/4	[V] forward & Reverse		
26	22/4	kinematics.		

Odd/Even Semester 2021-22)

Execution Plan

Name of Faculty:- S A Gedam Semester 7th Section: A/B/C A,B,C

Subject Code: _____ Subject Name: RBT.

Sr.No.	Date	Topics Covered	Sign. Of Faculty	Sign of HOD
27	2/5	forward & Reverse transformation		
28	2/5	Numerical.		
29	5/5	Numerical.		
30	5/5	University Examples.		
31	8/5	Homogeneous Transformation		
32	8/5	Numericals.		
33	9/5	VI Robot Investment cost		
34	9/5	Robot operating Expenses		
35	9/5	methods of Economic Evaluation		
36	10/5	method of pay period.		
37	10/5	Numericals.		
38	11/5	Method of Economic Evaluation		
39	11/5	ROI, DCF model.		
40				
41				
42				

Prof.Ram Meghe Institute of Technology & Research, Badnera

Department of Mechanical Engineering

(Odd/Even Semester 2021-22)

Execution Plan

Name of Faculty:- A. U. Awate Semester VIII Section: (A)B/C 1

Subject Code: 83ME4 Subject Name: OR T

Sr.No.	Date	Topics Covered	Sign. Of Faculty	Sign of HOD
1	10.2.22	Introduction, OR models, Formulation Problem	★	
2	14.2.22	Formulation of LPP	★	
3	15.2.22	Graphical Method Maximization Case	★	
4	16.2.22	Graphical Method Minimization Case	★	
5	21.2.22	Dual of LPP	★	
6	22.2.22	Simplex method	★	
7	23.2.22	Applications of LPP	★	
8	25.2.22	Transportation Algorithm	★	
9	2.3.22	Tr. methods of Initial soln	★	
10	2.3.22	Tr. methods of Initial soln	★	
11	2.3.22	MODI method	★	
12	7.3.22	Degeneracy in Tr. Problems	★	
13	9.2.22	Unbalanced Tr. problems	★	
14	9.3.22	Assignment model.	★	
15	9.3.22	Hungarian Method	★	
16	21.3.22	Diff. cases of Assignment Prob.	★	
17	21.3.22	Introduction to PERT/CPM	★	
18	21.3.22	Diff. betn PERT/CPM	★	
19	24.3.22	Network diagram	★	
20	24.3.22	Forward/Backward Pass method	★	
21	28.3.22	Floats, Problems on Floats	★	
22	28.3.22	Critical path method	★	
23	30.3.22	3 Time Estimation Prob.	★	
24	30.3.22	Project Crashing Prob.	★	
25	31.3.22	Sequencing model	★	

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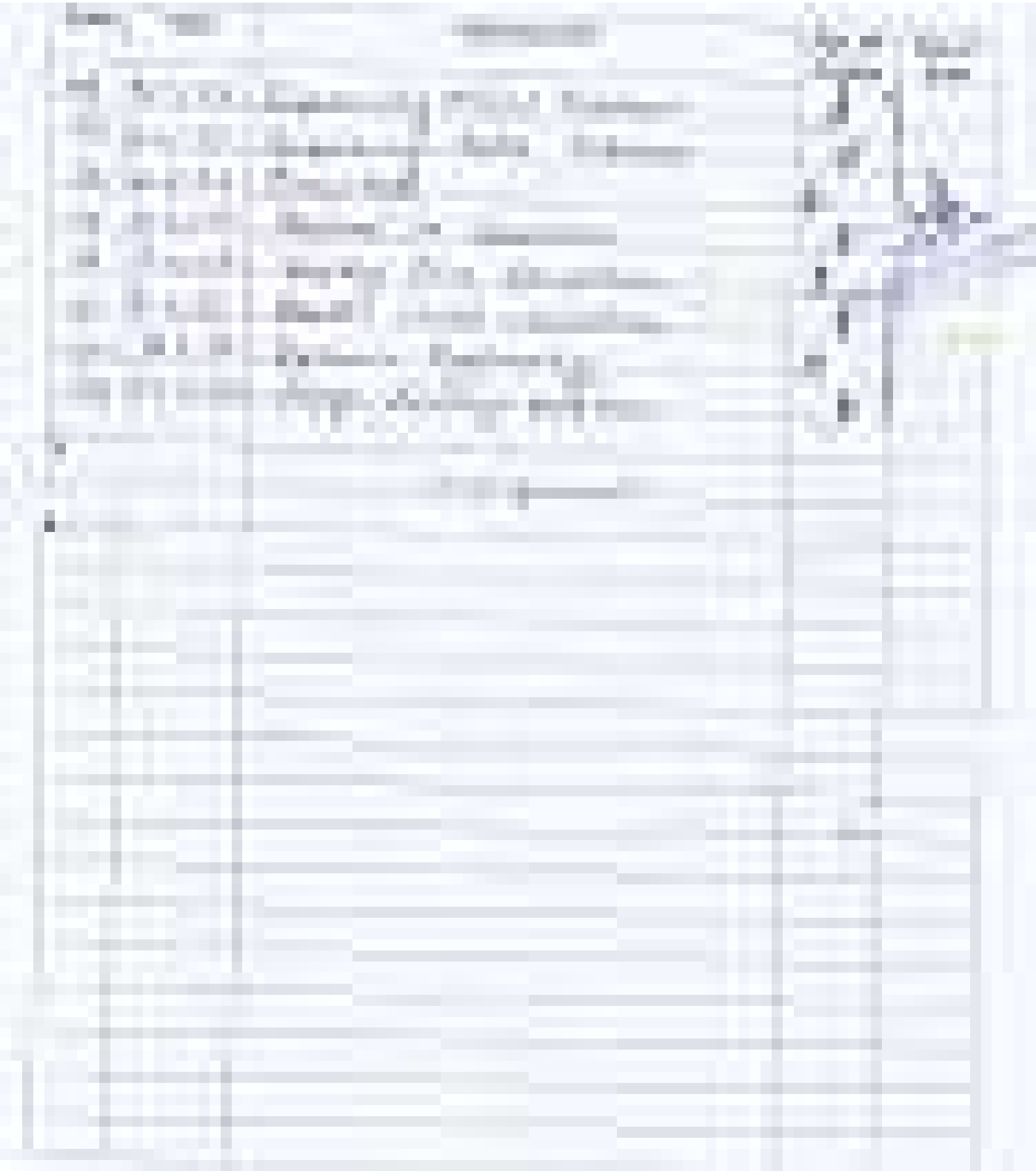

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Department of Mechanical Engineering

(Odd/Even Semester 2021-22)

Execution Plan

Name of Faculty:- S.S. Kengne Semester VI Section: (A/B/C) C

Subject Code: ME602 Subject Name: DOM.

Sr.No.	Date	Topics Covered	Sign. Of Faculty	Sign of HOD
01	02/03/22	Unit I - Static equilibrium & superposition		
02	02/03/22	virtual work method.		
03	03/03/22	Numerical on static force analysis.		
04	03/03/22	Numerical on static force		
05	04/03/22	analysis.		
06	07/03/22	Introduction to hydrodynamics		
07	08/03/22	boundary lubrication film		
08	08/03/22	Lubrication Rolling friction.		
09	10/3/22	Unit II Introduction to D'Alembert's principle		
10	21/03/22	Introduction to inertia of connecting		
11	21/03/22	and T-θ diagram of 4-stroke		
12	22/3/22	engine, 2-stroke Engine		
13	22/3/22	Problem on flywheel.		
14	24/03/22	Unit III Introduction to Gyroscope		
15	24/03/22	Effects of Gyroscope on ship		
16	28/03/22	Effects of Gyroscope on 2 wheels		
17	28/3/22	4-wheels & numerical based on it		
18	29/3/22	Gyroscopic Couple problem		
19	29/3/22	Vehicle dynamics balancing		
20	30/3/22	of vehicle		
21	04/04/22	Unit IV Introduction to vibration		
22	04/04/22	Terms of vibration & Hz		
23	05/04/22	Introduction to Longitudinal		
24	05/04/22	vibration Natural frequency		
25	06/04/22	Longitudinal vibration Problem		
26	06/04/22	based on it.		

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Odd/Even Semester 2021-22)

Execution Plan

Name of Faculty:- S.S. Gangre Semester VIth Section: A/B/C C

Subject Code: OME02 Subject Name: DOM

Sr.No.	Date	Topics Covered	Sign. Of Faculty	Sign of HOD
27	18/04/22	Single rotor system; two rotor		
28	18/4/22	system, three rotor system		
29	21/04/22	Unit V Introduction to transverse		
30	21/04/22	vibration Natural frequency of		
31	25/04/22	transverse vibration		
32	25/04/22	Numerical on transverse vibration		
33	26/04/22	Dunkerley's method & numerical		
34	26/04/22	whirling speed of shaft & numerical		
35	27/04/22	Unit VI Balancing of machinery		
36	27/04/22	Balancing of rotating masses		
37	04/05/22	of static & dynamics Balancing of		
38	04/5/22	single cylinder Balancing of		
39	04/5/22	linkages Balancing problem		
40	10/5/22	Numerical on Balancing		

Prof.Ram Meghe Institute of Technology & Research, Badnera

Department of Mechanical Engineering

(Odd/Even Semester 2021-22)

Execution Plan

Name of Faculty:- S. P. PATIL Semester IV Section: A/B/C

Subject Code: ____ Subject Name: M. Sc.

Sr.No.	Date	Topics Covered	Sign. Of Faculty	Sign of HOD
1	14-03	Intro, Physical Mett., classifn of Matl, types of alloys	[signature]	
2	15	Solid soln, Lever rule for phase Mixt.	[signature]	
3	16	Solidifn of pure metal, nucleatn & growth, dendritic solidifn	[signature]	
4	21	Study of binary equi dia, Iron carbon equilm diag.	[signature]	
5	22	Critical temp, microstructure of slowly cooled steel	[signature]	
6	23	Intro to composite matl., advntg, appln	[signature]	
7	28	Alloy steel, purpose, classifn, effect on eutectoid composition	[signature]	
8	29	Eutectoid temp, S curve, properties of steel	[signature]	[signature]
9	30	Other Hadfield steel, HSS, Heat treatment etc, weld decays	[signature]	HOD, Deptt. of Mechanical Engineering, PRMIT & R, Badnera
10	04-04	Macros dia, Condn of carbon in CI, Malleabilizing, Composition & props of white, grey etc	[signature]	
11	05	Alloys Cast I, NF metal & alloys, Brasses & bronzes	[signature]	
12	06	Al, lead, tin, zink, appl, bearing metals	[signature]	
13	12	Principle of HT, Annealing, Normalizing	[signature]	
14	18	Tempering, S curve, Pearlite, bainite & martensite transformation	[signature]	
15	19	Quenching media, Austempering	[signature]	
16	20	Martempering & patenting, Hardenability	[signature]	
17	25	Powder Mett, concept, Method of Manuf. of metal powders	[signature]	
18	26	Compaction, process, single die, double die, sintering	[signature]	
19	9	Power bearing & cemented carbide tip	[signature]	
20	10	Surface hardening, Carburizing, Mech working, Hot & cold working	[signature]	
21	11	Strain hardening, Recrystalln, Deformation mech. Mech. working process.	[signature]	

Prof.Ram Meghe Institute of Technology & Research, Badnera

Department of Mechanical Engineering

(Odd/Even Semester 2021-22)

Execution Plan

Name of Faculty:- Prof P.V Gedam Semester VII th Section: A/B/C A

Subject Code: CME05 Subject Name: Automobile Engg [Open Elective]

Sr.No.	Date	Topics Covered	Sign. Of Faculty	Sign of HOD
1	11-2-22	Introduction about automobile		
2	17-2-22	Classification of automobile.		
3	18-2-22	Chassis type & basic parts		
4	18-2-22	Engine parts & firing order.		
5	24-2-22	CI & SI Engine		
6	25-2-22	2 Stroke & 4 Stroke Engine		
7	25-2-22	Comparision & details about *		
8	3-3-22	Fuel feed System		
9	3-3-22	fuel filter & air filter.		
10	04-3-22	MPFI & CRDI System		
11	04-3-22	Control System & its Types.		
12	10-3-22	Types of Cooling System		
13	10-3-22	Water pump & Radiator.		
14	11-3-22	Antifreeze mixture.		
15	11-3-22	Electrical System & its parts		
16	17-3-22	Battery, Battery Capacity.		
17	17-3-22	Battery Rating		
18	24-3-22	Starter Motor driver.		
19	24-3-22	Bendix drive, Solenoid Switch		
20	25-3-22	Ignition System - Types.		
21	25-3-22	Battery Ignition System		
22	31-3-22	Transmission System & definition		
23	1-4-22	Clutch & its types of clutch.		

Odd/Even Semester 2021-22)

Execution Plan

Name of Faculty:- Prof. P.V. Gedam Semester VI th Section: A/B/C A

Subject Code: CMTE05 Subject Name: Automobile Engg. (Open Elective)

Sr.No.	Date	Topics Covered	Sign. Of Faculty	Sign of HOD
24	1-4-22	Single Plate Clutch and		
25	7-4-22	multi plate clutch.		
26	8-4-22	Gear box & its types.		
27	8-4-22	Sliding mesh Gear box		
28	21-4-22	Const mesh & Synchromesh		
29	22-4-22	Gearbox Drive & its types.		
30	22-4-22	Breaking System ⇒ Types		
31	28-4-22	of Breaking System.		
32	29-4-22	Mech & hydraulic brake.		
33	29-4-22	Steering System.		
34	5-5-22	Wheel alignment & balancing.		
35	6-5-22	Toe in - Toe out		
36	6-5-22	Caster, Camber, Power Steering		
37	12-5-22	Suspension System & its types.		
38	13-5-22	Shock absorber & uses		
39	15-5-22	Telescopic Shock absorber.		
40	19-5-22	Lubrication & its uses.		
41	20-5-22	Types of lubrication.		
42	20-5-22	Dry & Wet Sump lubrication System.		

Head
Department of Mechanical Engineering
PRMIT & R, Badnera

Prof.Ram Meghe Institute of Technology & Research, Badnera

Department of Mechanical Engineering

(Odd/Even Semester 2021-22)

Execution Plan

Name of Faculty:- A. S. Sakhare Semester VIII Section: A/B/C B

Subject Code: _____ Subject Name: Automobile Engg.

Sr.No.	Date	Topics Covered	Sign. Of Faculty	Sign of HOD
1	3-3-22	Guidance regarding Career		
2	4-3	UNIT-I Introduction of Automobile		
3	8-3	Classification of Automobile		
4	10-3	Types of Chassis Layout		
5	11-3	Types of engine		
6	15-3	Firing order		
7	22-3	Engine & it's function		
8	24-3	Hill climbing		
9	25-3	UNIT-II Fuel feed system		
10	29-3	Types of fuel pump		
11	29-3	Fuel filters & Air filters		
12	31-3	MPFI		
13	6-4	CRDI		
14	7-4	Types of Cooling system		
15	8-4	Cooling system		
16	19-4	UNIT-III Clutch System		
17	21-4	Clutches		
18	22-4	Gear Box system		
19	26-4	Differential Gear working		
20	26-4	Hotchkiss drive		
21	28-4	Torque tube drive		
22	04-5	cone clutch		
23	4-5	Unit IV Braking system		
24	5-5	mechanical & Hydraulic Brake		
25	5-5	Steering system		
26	6-5	Types of S.S.		

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Odd/Even Semester 2021-22)

Execution Plan

Name of Faculty:-__________________ Semester____ Section: A/B/C

Subject Code: __________ Subject Name: ________________________

Sr.No.	Date	Topics Covered	Sign. Of Faculty	Sign of HOD
27	6-5	Power steering		
28	17-5	Unit VI Introduction to susp^n		
29	18-5	Shock absorber		
30	18-5	Types of lubricant		
31	19-5	Engine lubricant		
32	20-5	Suspension system		
33	23-5	oil pump & crank case		
34	24-5	Unit - III Battery (Extra)		
35	24-5	Ignition system (Extra)		
36	25-5	Electrical system (Extra)		
37	26-5	magneto system (Extra)		

Head Deptt. of Mechanical Engineering

Prof.Ram Meghe Institute of Technology & Research, Badnera

Department of Mechanical Engineering

(Odd/Even Semester 2021-22)

Execution Plan

Name of Faculty: R. A. Kuhade Semester VI Section: A/B/C B

Subject Code: 6ME02 Subject Name: Dynamics of Machines

Sr.No.	Date	Topics Covered	Sign. Of Faculty	Sign of HOD
29	20.4.22	Partial balancing of reciprocating masses		
30	21.4.22	-II		
31	22.4.22	Numericals		
32	25.4.22	Torsional vibration - Introduction		
33	27.4.22	Single rotor systems		
34	28.4.22	Two rotor system		
35	4.5.22	Three rotor system		
36	6.5.22	Geared systems		
37	11.5.22	Numericals		

Name of Faculty:- Dr. R.A. Kubde Semester VI[th] (B) Section: A/B/C (B)

Subject Code: 6ME02 Subject Name: Dynamics of machines

Sr.No.	Date	Topics Covered	Sign. Of Faculty	Sign of HOD
1.	14.2.2022	static force analysis introduction	(B)	
2	15.2.2022	—"— free body Dig. (without friction)	(B)	
3	16.2.2022	force convention, numerical	(B)	
4	17.2.2022	Numericals, four force members	(B)	
5	21.2.2022	numericals	(B)	
6	22.2.22	—"—	(B)	
7	23.2.22	static force Analysis (with friction	(B)	
8	24.2.22	—"— —"—	(B)	
9	2.3.22	Lubrication	(B)	
10	3.3.22	Dynamic force analysis D'Alemberts Prin.	(B)	
11	4.3.22	vel. & accl'n of piston & connecting rod	(B)	
12	7.3.22	thrust along CR, side of cylinder	(B)	Head Deptt. of Mechanical Engineer PRMIT & R, Badnera
13	9.3.22	crank effort, turning moment dig.	(B)	
14	10.3.22	for 2-stroke, 4-stroke & multi cylinder	(B)	
15	11.3.22	Dynamic equivalent system of CR	(B)	
16	21.3.22	flywheel, numericals	(B)	
17	23.3.22	Gyroscope, introduction	(B)	
18	24.3.22	Gyroscopic effect on ship, aeroplane	(B)	
19	25.3.22	four wheeler, two wheeler	(B)	
20	28.3.22	Numericals	(B)	
21	30.3.22	vehicle dynamics - introduction	(B)	
22	31.3.22	Numericals	(B)	
23	1.4.22	Balancing - Introduction	(B)	
24	4.4.22	balancing of masses in same plane	(B)	
25	6.4.22	—"—	(B)	
26	7.4.22	balancing of masses in different planes	(B)	
27	8.4.22	—"—	(B)	
28	18.4.22	Numericals		

Department of Mechanical Engineering

(Odd/Even Semester 2021-22)

Execution Plan

Name of Faculty:- Dr. M. P. Nawathe Semester VI Section: A/B/C A

Subject Code: 6MEO3 Subject Name: Control System Engg

Sr.No.	Date	Topics Covered	Sign. Of Faculty	Sign of HOD
1	16/2/22	Intro of control system Engg	MK	
2	17/2/22	open loop & closed loop system	MK	
3	18/2/22	Types of control system Engg	MK	
4	22/2/22	Transfer function	MK	
5	23/2/22	Block Dia. Method	MK	
6	24/2/22	Rules of Block Dia. method	MK	
7	25/2/22	Prob on Block Dia.	MK	
8	4/3/22	Prob on Block Dia.	MK	
9	7/3/22	Signal flow Graph (SFG)	MK	
10	8/3/22	Prob on SFG.	MK	
11	11/3/22	Types of controller	MK	
12	21/3/22	Prop. controller.	MK	
13	23/3/22	Derivative controller	MK	
14	25/3/22	Integral controller	MK	
15	28/3/22	Time response analysis	MK	
16	29/3/22	Time response specifications	MK	
17	29/3/22	Prob on time response	MK	
18	1/4/22	Prob on time response	MK	
19	4/4/22	Root Locus	MK	
20	5/4/22	Prob. on Root Locus	MK	
21	5/4/22	Stability of control system	MK	
22	8/4/22	Prob. on stability	MK	
23	11/4/22	Prob. on Root Locus	MK	
24	12/4/22	Prob on Root Locus	MK	
25	13/4/22	Routh's Array method	MK	
26	25/4/22	Root locus prob	MK	

Dept. of Mechanical Engineering
PRMIT & R, Badnera

Odd/Even Semester 2021-22)

Execution Plan

Name of Faculty:- Dr. M.P. Nawathe Semester VI Section: A/B/C A

Subject Code: 6ME03 Subject Name: CSE

Sr.No.	Date	Topics Covered	Sign. Of Faculty	Sign of HOD
27	26/4/22	Introd. to Bode plot	CMN	
28	6/5/22	GM, PM, wgc, wpc	CMN	
29	6/5/22	Probs on Bode plot	CMN	
30	9/5/22	Probs on Bode plot	CMN	

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Dept. of Mechanical Engineering
P.V.P.I.T & M. Budhgaon

Prof.Ram Meghe Institute of Technology & Research, Badnera

Department of Mechanical Engineering

(Odd/Even Semester 2021-22)

Execution Plan

Name of Faculty: R. R. Kolhekar Semester: 6th Section: A/B/C C

Subject Code: _____ Subject Name: Control System Engg. (CSE)

Sr.No.	Date	Topics Covered	Sign. Of Faculty	Sign of HOD
1	2/3/22	Intro & open loop closed loop	2 hrs	
2	7/3/22	Types of control system	2 hrs	
3	8/3/22	Transfer function	2 hrs	
4	9/3/22	Block diagram red^n	2 hrs	
5	21/3/22	rules for red^n of Block diag	2 hrs	
6	22/3/22	Problems on —11—	2 hrs	
7	23/3/22	Problems on —11—	2 hrs	
8	24/3/22	signal flow graphs	2 hrs	
9	29/3/22	Problem on SFG	2 hrs	
10	30/3/22	Types of controllers	2 hrs	
11	4/4/22	Derivative controllers	2 hrs	
12	5/4/22	Integral controllers	2 hrs	
13	6/4/22	Time response analysis	2 hrs	
14	18/4/22	Time response cont.	2 hrs	
15	19/4/22	Problems on TRA	2 hrs	
16	20/4/22	Root locus	2 hrs	
17	25/4/22	Problems on Root locus	2 hrs	
18	26/4/22	Problems on Root locus	2 hrs	
19	27/4/22	Stability of control system	2 hrs	
20	4/5/22	Problems on stability	2 hrs	
21	9/5/22	Problems on stability	2 hrs	
22	10/5/22	Problem on root locus	2 hrs	
23	11/5/22	Problem on root locus	2 hrs	
24	11/5/22	Problem contd.	2 hrs	
25	17/5/22	Intro to bode Plot	2 hrs	
26	18/5/22	GM, PM	2 hrs	

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Sr.No.	Date	Topics Covered	Sign. Of Faculty	Sign of HOD
27	18/5/22	Problem on Bode plot		
28	23/5/22	Problem on bode plot		

Dept. of Electrical Engineering
P.R.M.I.T. & R. Badnera

Prof.Ram Meghe Institute of Technology & Research, Badnera

Department of Mechanical Engineering

(Odd/Even Semester 2021-22)

Execution Plan

Name of Faculty: A. P. Thakare, Semester VIII Section: A/B/C

Subject Code: 8ME601 Subject Name: Automobile Engineering

Sr.No.	Date	Topics Covered	Sign. Of Faculty	Sign of HOD
1	1/2/22	classification of A.E.		
2	2/2/22	chassis type, power unit funct.		
3	8/2/22	locations power for propulsion & engine mounting		
4	9/2/22	engine parts type, construction & funct.		
5	11/2/22	multi-cylinder engines.		
6	15/2/22	engine balancing.		
7	16/2/22	firing order.		
8	18/2/22	fuel feed system for SI & CI.		
9	22/2/22	fuel pumps, fuel filters, air filter.		
10	23/2/22	MPFI & GDI		
11	25/2/22	Common Rail Diesel injection, controlling		
12	4/3/22	cooling system.		
13	8/3/22	water pump & radiator.		
14	9/3/22	Antifreeze mixture.		
15	11/3/22	trouble & remedies.		
16	16/3/22	Electrical system.		
17	18/3/22	Standard Battery rating.		
18	23/3/22	Bendix drive.		
19	25/3/22	over running clutch.		
20	25/3/22	Solenoid switch & shift.		
21	29/3/22	Battery coil Ignition system.		
22	30/3/22	Ignition timing & its effect.		
23	1/4/22	Electronic ignition system.		
24	5/4/22	Transmission system		
25	6/4/22	Single plate & multiplate clutch		
26	8/4/22	clutch trouble & remedies.		

Head
Dept. of Mechanical Engineering
P.R.M.I.T. & R. Badnera

Odd/Even Semester 2021-22)

Execution Plan

Name of Faculty:- A. P. Thakare Semester VIII Section: A/B/C

Subject Code: AME01 Subject Name: Automobile Eng.

Sr.No.	Date	Topics Covered	Sign. Of Faculty	Sign of HOD
27	12/4/22	Gear Boxes.	PR	
28	13/4/22	Sliding, constant mesh gear box	PR	
29	13/4/22	Overdrive - trouble shooting	PR	
30	19/4/22	torque convertor. Automatic trans.	PR	
31	20/4/22	propeller shaft & drives.	PR	
32	21/4/22	Braking system.	PR	
33	26/4/22	power & vaccum brakes.	PR	
34	27/4/22	Steering system	PR	
35	29/4/22.	Steering Gears	PR	
36	4/5/22	toe-in, toe-out, wheel align, castor, camber, king-pin	PR	
37	6/5/22	Suspension system	PR	
38.	6/5/22.	Types of lubrication	PR	
39	10/5/22	dry sump system, full system.	PR	
40	11/5/22	oil filters, by pass system.	PR	
41	13/5/22.	Crankcase ventilation. trouble & remedies	PR	

Prof.Ram Meghe Institute of Technology & Research, Badnera

Department of Mechanical Engineering

(Odd/Even Semester 2021-22)

Execution Plan

Name of Faculty:- Ankush S. Patil Semester VIIIth Section: A/B/C B&C

Subject Code: 8ME62 Subject Name: Refrigeration and Air-conditioning

Sr.No.	Date	Topics Covered	Sign. Of Faculty	Sign of HOD
1	1-02-22	Basic of Refrigeration & Introduction to VCR System		
2	02-02-22	Analysis of Simple VCR, Use of Ph & T-S charts		
3	04-02-22	Effect of ↑Pe, ↑Pe, Superheating & Subcooling		
4	07-02-22	Actual VCR and VAR System		
5	08-2-22	Refrigerant Classification, primary and Secondary refrigerant		
6	10-2-22	Merits and demerits of commonly used refrigerant such as Ammonia, R12, R22 and their selection		
7	14-2-22	Numericals		
8	15-2-22	Numericals		
9	15-2-22	Introduction to Multistage pressure system		
10	17-2-22	Multistage compⁿ, choice of Intermediate pressure		
11	17-2-22	Complete multistage pressure system		
12	21-2-22	Multi evaporator system		
13	24-2-22	Single compⁿ individual & multistage expⁿ valve		
14	24-2-22	Cascade system & its application for cryogenics		
15	25-2-22	Air liquefaction process - linde Hampson		
16	26-2-22	Numericals.		
17	28-2-22	Numericals.		
18	2-3-22	Introduction to refrigeration System Component		
19	3-3-22	Brief study of refrigerant - compressor.		
20	7-3-22	Condensor, Evaporators.		
21	8-3-22	Expansion valve, drier, filter		
22	10-3-22	Selection criteria for the component of VCR System		
23	12-3-22	Flow Control, Temp, pressure control, Safety devices		
24	12-3-22	Defrosting, Leak detection Test		
25	14-3-22	Psychrometric properties of moist air		

Dept. of Mechanical Engineering PRMIT&R Badnera

Execution Plan

Name of Faculty: Ankush S Patil Semester: VIII th Section: A/B/C B/C

Subject Code: 8ME02 Subject Name: Refrigeration and Air-conditioning

Sr.No.	Date	Topics Covered	Sign. Of Faculty	Sign of HOD
26	15-3-22	Psychrometric chart, Concept of DBT, WBT, DPT	[signature]	[signature]
27	15-3-22	Psychrometric process and chart	[signature]	
28	17-3-22	Mixing of air, Evaporative cooling towards	[signature]	
29	17-3-22	Human comfort: - metabolism, Human load, sit Job	[signature]	
30	17-3-22	Concept of Effective temp, optimum Effective Temp	[signature]	
31	21-3-22	Numericals	[signature]	
32	22-3-22	Numericals	[signature]	
33	24-3-22	Introduction to Air-conditioning system	[signature]	
34	28-3-22	Unitary system, package window split	[signature]	
35	28-3-22	Central system Components, typical ducts	[signature]	
36	31-3-22	All water and All Air system	[signature]	
37	4-4-22	Summer & year round Air-conditioning	[signature]	
38	6-4-22	Transmission and distribution, Type of supply	[signature]	
39	7-4-22	Consideration of selection of outlet Temp	[signature]	
40	11-4-22	Introduction to load calculation	[signature]	
41	12-4-22	Applied psychrometry, Grade loss	[signature]	
42	18-4-22	Cooling load estimation	[signature]	
43	19-4-22	Heating load estimation	[signature]	
44	21-4-22	Numericals	[signature]	
45	25-4-22	Numericals	[signature]	
46	26-4-22	Numericals	[signature]	
47	27-4-22	Numericals		

HOD Mechanical Engineering PRMIT & R Badnera

Prof.Ram Meghe Institute of Technology & Research, Badnera

Department of Mechanical Engineering

(Odd/Even Semester 2021-22)

Execution Plan

Name of Faculty: Dr Nitin A Wankhade Semester IV Section: A/B/C B

Subject Code: 4ME03 Subject Name: Manuf

Sr.No.	Date	Topics Covered	Sign. Of Faculty	Sign of HOD
2.1	22/3	Th. of metal cutting, Tool nat & geom		
2	23/3	classification, Tool life & wear		
3	25/3	calculation of cutting forces, fluids		
4	29/3	Machinability, chip thickness ratio		
5	29/3	Merchant circle, Lubrication, operation		
6	30/3	& accessories of centre lathe		
7	01/4	Capstan & turret lathe, indexing, bar		
8	5/4	feeding mechanism, Mc tool classification		
9	6/4	Taper turning & screw cutting		
10	19/4	CNC, Turning operation, Drilling		
11	20/4	Boring mc & types, horizontal boring		
12	22/4	& jig boring mc, broaching types		
13	26/4	Milling mc - calculation, Cutters,		
14	27/4	Indexing mechanisms - Types		
15	29/4	Grinding mc - types, Abrasives		
16	5/5	Shaper, planer & slotter etc		
17	11/5	Ultrasonic Machining, EBM		
18	13/5	LBM, PAM - principles, app^n.		
19	17/5	EDM - parameters, principles		
20	17/5	App^n, mat. removal process etc		

Dept. of Mechanical Engineering
P.R.M.I.T.&R. Badnera

Prof.Ram Meghe Institute of Technology & Research, Badnera

Department of Mechanical Engineering

(Odd/Even Semester 2021-22)

Execution Plan

Name of Faculty:- N. S. Pohakar Semester VI Section: A/B/C A

Subject Code: 6MEOZ Subject Name: Design of M/c Elements

Sr.No.	Date	Topics Covered	Sign. Of Faculty	Sign of HOD
1	11/2/22	meaning of design, phases & Introduction		
2	14/2/22	Thermal stress, Torsional, Bending stresses		
3	16/2/22	Riveted Joints & it's Numaricals		
4	17/2/22	Welded Joints & it's Numaricals		
5	18/2/22	Numaricals		
6	21/2/22	Numaricals		
7	23/2/22	Hooks & C-clamps Numaricals		
8	24/2/22	Design of Knuckle Joints.		
9	25/2/22	Numaricals		
10	2/3/22	Design of spiral & leaf springs		
11	7/3/22	Numaricals		
12	8/3/22	Design of power screw		
13	9/3/22	Numaricul & Theory		
14	9/3/22	Numaricul & Theory		
15	21/3/22	Stresses in power screw		
16	22/3/22	Design of shaft subjected to twisting		
17	23/3/22	Numaricals		
18	28/3/22	Design of shaft subjected to bending		
19	30/3/22	Numaricul.		
20	4/4/22	Design of shaft subjected to combined twisting & Bend.		
21	5/4/22	Numaricals & rigidity of shaft		
22	6/4/22	Numaricals.		
23	11/4/22	Design of rigid coupling		
24	18/4/22	Numaricals		
25	25/4/22	Design of flexible Coupling.		
26	26/4/22	Numaricals		

Odd/Even Semester 2021-22)

Execution Plan

Name of Faculty:- N. S. Pohakey Semester VI Section: A/B/C A

Subject Code: 6ME02 Subject Name: DME

Sr.No.	Date	Topics Covered	Sign. Of Faculty	Sign of HOD
27	27/4/22	Design of antifriction bearing & its type		
28	28/4/22	Numaricals.		
29	29/4/22	Design of Journal bearing & its type		
30	30/4/22	Numericals.		
31	9/5/22	Design of I.C. Engine parts.		
32	10/5/22	Numaricals.		

Prof.Ram Meghe Institute of Technology & Research, Badnera

Department of Mechanical Engineering

(Odd/Even Semester 2021-22)

Execution Plan

Name of Faculty:- N. S. Pahekar Semester VI Section: A/B/C C

Subject Code: CME02 Subject Name: DME

Sr.No.	Date	Topics Covered	Sign. Of Faculty	Sign of HOD
1	11/2/22	meaning of design, phases & Introductio		
2	14/2/22	Thermal, torsional bending stresses		
3	16/2/22	Rivetted joint		
4	21/2/22	Numericals		
5	23/2/22	welded joint		
6	24/2/22	Numericals.		
7	25/2/22	Hook's & c-clamp Numerical		
8	2/3/22	Design of knuckle joint		
9	8/3/22	Numerical		
10	9/3/22	Design of spiral & leaf Spring		
11	23/3/22	Numerical on spiral spring		
12	25/3/22	Numerical on leaf spring		
13	24/3/22	Design of power screw		
14	30/3/22	Numericals		
15	5/4/22	Numericals		
16	6/4/22	Design of shaft subjected to twistin		
17	19/4/22	Numericals		
18	20/4/22	Design of shaft subjected to bending		
19	26/4/22	Numericals		
20	27/4/22	design of shaft subjected to Combined		
21	27/4/22	Numericals.		
22	28/4/22	Design of shaft on the basis of rigidity		
23	29/4/22	Numericals.		
24	29/4/22	Numericals		
25	30/4/22	Numericals.		

HOD
Dept. of Mechanical Engineering
PRMIT & R, Badnera

17		Biomass: Sources and Characteristics Wet biogas plant Biomass gasifiers		31/3/22
18		Classification and Operating characteristics Updraft and Downdraft gasifier		5/4/22
19		Gasifier based electricity generating systems		6/4/22
20		Biogas-Types of bio gas plants, factors affecting production rates		19/4/22
21		Introduction to biodiesel and ethanol as alternative fuels		20/4/22
22		Energy from tides, basic principle of tidal power		20/4/22
23		Single basin and double basin tidal power plants, advantages, limitation and scope of tidal energy		21/4/22
24		Ocean Thermal Electric Conversion (OTEC) systems like open cycle, closed cycle, Hybrid cycle, Prospects of OTEC in India		26/4/22
25		Wave energy and power from wave, Wave energy conversion devices		26/4/22
26		Advantages and disadvantages of wave energy		27/4/22
27		Introduction, working principle of fuel cell Types of fuel cells, conversion efficiency of fuel cell, application of fuel cells.		28/4/22
28		Hydrogen as alternative fuel, Production methods, Hydrogen storage		4/5/22
29		Hot Dry Rock system, Vapor dominated, liquid dominated, Flash steam, Binary fluid		4/5/22
30		Total flow concept of power generation		5/5/22

Prof.Ram Meghe Institute of Technology & Research, Badnera

Department of Mechanical Engineering

(Odd/Even Semester 2021-22)

Execution Plan

Name of Faculty:- S.M. Parapat Semester VI Section: A/B/C B

Subject Code: _____ Subject Name: Control Sys. Engg.

Sr.No.	Date	Topics Covered	Sign. Of Faculty	Sign of HOD
		unit - I		
1	16/2/22	Introduction to CSE		
2	17/2/22.	System, control system, loop, F. loop.		
3	18/2/22	open & close loop system		
4	19/2/22	Numerically on BDR		
5	24/2/22	——11——		
6	25/2/22	Introduction to SFG.		
7	26/2/22	Numerically on SFG.		
8	27/2/22	Numerically on SFG.		
		unit - III		
9	2/3/22	Introduction to transient Response.		
10	3/3/22	Test signals & types of it.		
11	4/3/22	step ramp, impulse, steady state		
12	5/3/22	Numerically on time Response		
13	9/3/22	——11——		
14	10/3/22	Numerically on steady state Response.		
15	11/3/22	Numerically on steady state.		
		unit - IV		
16	12/3/22	Introduction to stability.		
17	16/3/22	Procedure to draw Root locus.		
18	17/3/22	System with transportation lag		
19	23/3/22	Numerically on Root locus		
20	24/3/22	Numerically on Root locus		
21	25/3/22	Numerically on Routh criteria		
22	26/3/22	Numerically on Hurwitz criteria		

Head
Department of Mechanical Engineering
P.R.M.I.T & R. Badnera

Prof. Ram Meghe Institute of Technology & Research, Badnera

AY:- 2021-22 Department of First Year Engineering Department

Lesson Plan

Name of Faculty :- Prof. P. P. Thosare		Semester:- I
Subject:	Basic Electrical Engineering	Section : I
Lecture No.	**Topics**	**Remark**
1	Importance of subject & Introduction to syllabus	
	Unit – I: Fundamentals	
2	Basic concept of voltage, current, Power and energy.	
3	Resistance, resistivity, conductance, conductivity, Ohm's Law	
3	Temperature effect on resistance , Temperature coefficient of resistance	
4	Numerical on Temperature coefficient of resistance.	
5	Series & Parallel circuits	
6	Numerical on Series & Parallel circuits	
7	Delta – Star & Star-Delta transformation	
8	Numerical on Star Delta transformation	
9	Kirchhoff 's laws (KCL & KVL)	
10	Superposition Theorem	
11	Thevenin's Theorem	
12	Numericals on Superposition & Thevenin's Theorem	
	Unit-II: Magnetic Circuit & Electromagnetism	
13	Basic concepts of Magnetic flux, Flux density, MMF, Reluctance, Magnetic field intensity & their relationship	
14	Magnetic Leakage & Fringing of flux	
15	Series & Parallel magnetic circuit	
16	Series & Parallel magnetic circuit with air gap	
17	Series & Parallel magnetic circuit without air gap	
18	Numerical on series magnetic circuit	
19	Principles of electromagnetic induction, Self and mutual induction	
20	Magnetization curves	
	Unit – III : AC fundamentals	
21	RMS and average values, Form factor, peak factor (for sinusoidal waveform only)	
22	Purely resistive, inductive & capacitive circuit	
23	Single phase AC Series circuit with resistance , inductance & Capacitance	
24	Numericals on RLC series circuit.	

25	Phasor diagrams for series circuit & Series resonance	
26	Impedance triangle, Active & reactive power.	
27	Resonance in Series R-L-C Circuit and Numericals	
	Unit – IV : Polyphase Circuit	
28	Generation of three phase EMF.	
29	3 Phase Balanced Delta and Star connected system.	
30	Voltage and Current relationship between phase and line quantities for star connection	
31	Numerical on three phase star connected system	
32	Voltage and Current relationship between phase and line quantities for Delta connection	
33	Numerical on three phase Delta connected system	
	Unit – V : Electrical Machines	
35	A) Single phase Transformer:	
36	Principle of operation	
37	Construction & Classification	
38	EMF equation, losses, efficiency, Regulation of Transformer	
39	Numericals on efficiency , regulation of transformer	
40	B) Electromechanical Energy Conversion:	
41	Construction & various parts of DC machines	
42	Classification of DC machines, Characteristics & applications of DC machines	
	Unit – VI : Electrical Apparatus & Safety	
43	Measurement of current & voltage (Ammeter & Voltmeter)	
44	Measurement of power & energy (Wattmeter & Energy- meter)	
45	Range extension of Ammeter, Voltmeter, Wattmeter & Energy- meter	
45	Necessity of Earthing, Limiting values for various installation, Types of Earthing (Pipe earthing & plate earthing)	
46	Measurement of current & voltage (Ammeter & Voltmeter)	

Prof. Ram Meghe Institute of Technology & Research, Badnera

Department of First Year Engineering Department

AY:	2021-22 Lession Plan	
Name	Prof. Shailesh S. Dhok	Semester:- I st
Subject	Computer Programming Subject Code:-1A4	Section : C
Leture No.	Topics	Remark
Unit-I	**Fundamental of the Computer and Computing Concepts**	
Lect1	Generation of computers	
Lect2	Classification of computers	
Lect3	Basic Anatomy of Computer System,Input Devices, Processor, Output Devices, Memory Management	
Lect4	Types of Computer Software, Overview of Operating system,	
Lect5	Networking Concepts, Microsoft Office,	
Lect6	Number systems: Decimal, Binary, Hexadecimal, Octal	
Lect7	Conversion of Numbers,Binary Arithmetic Operations	
Lect8	Programming Languages, Logic Gates	
Unit-II	**C Fundamentals:**	
Lect9	Introduction, Importance of C	
Lect10	Basic Structure of C Programs, Program execution	
Lect11	Basic programs based on C such as Printing Message	
Lect12	Adding two numbers, Interest calculations	
Lect13	Use of subroutines, math function	
Lect14	C tokens, Keywords and Identifiers,	
Lect15	Operators & their precedence, Assignment statement.	
Lect16	Declaration of Variables, Declaration of Storage Class	
Unit-III	**Operators, Expression and Input-Output operation**	
Lect17	Operators, Types of Operators: Arithmetic, Relational	
Lect18	Assignment, Increment-decrement	
Lect19	Logical operator Assignment, Conditional operator	
Lect20	Bitwise operator, Special operator	
Lect21	Evaluation of Expression	
Lect22	Precedence of Arithmetic Operators	
Lect23	Input-Output Operation: Reading and Writing Character	
Lect24	Formatted Input, Formatted Output.	
Unit - IV	**C Control constructs**	
Lect25	Decision-making using if, if-else	
Lect26	Nested if, else if ladder	
Lect27	switch-case statement	
Lect28	Operator, GotoOperator	
Lect29	Loops using for, while, do-while statements	
Lect30	break and continue statements	
Lect31	Jumps in loop	
Lect32	Concise Test Expressions	
Unit - V	**Array, Strings and Structures**	
Lect33	Introduction to array, One Dimensional Array: Declaration & Initialization,	

Lect34	Two Dimensional: Declaration & Initialization, Multi Dimensional,	
Lect35	Strings: Declaration and Initialization, Reading String from terminal, Writing String to Screen	
Lect36	Putting Strings together, Comparison of Two Strings	
Lect37	String-Handling Functions	
Lect38	Table of Strings, Other features of String,	
Lect39	Structures – Define, Declaration	
Lect40	Accessing the members of a structure	
Unit - VI	**User Defined Functions, Pointers and File Management**	
Lect41	Functions, Need for User defined Functions	
Lect42	Multi Function Program, Elements of User Defined Functions	
Lect43	Return Values and their types, Function Calls	
Lect44	Function Declaration, and Categories of Functions	
Lect45	Definition and uses of pointers, Accessing the address of a variable,	
Lect46	Introduction to File Management	
Lect47	Defining and Opening File, Closing File, Input/output Operations on File.	
Lect48	Input/output Operations on File.	

Prof. Ram Meghe Institute of Technology & Research, Badnera

Department of First Year Engineering Department

AY:- 2021-22

Lesson Plan

Name of Faculty :- Prof. DR - K.D. Umaley		Semester:- II
Subject: ENGG. CHEMISTRY		Section : A
Lecture No.	Topics	Remark
	Water Treatment and Analysis	
1	Introduction, Hardness of water, Types of hardness - temporary & permenant hardness, Units of Hardness and their inter-conversion	
2	Hardness determination by EDTA method	
3	Disadvantages of hard of water, Boiler troubles: Scale and Sludge formation, Caustic embritlement,	
4	Priming & Foaming, Boiler corrosion	
5	Zeolite process and Reverse Osmosis (RO)	
6	Softening of hard water by Ion exchange process & its regeneration	
7	Numerical Problem based on Hardness of water	
8	Numerical Problem based on Zeolite process	
	UNIT No. 2	
	Corrosion and Energy storage system	
9	Introduction of corrosion, Dry and its mechanism	
10	Wet corrosion and its mechanism	
11	Pitting, waterline and inter-granular corrosion	
12	Galvonic and stress corrosion	
13	Role of design and material selection in corrosion control	
14	Anodic and cathodic protection, Hot dipping(Galvanizing and tinning processes)	
15	Basic principles of batteries & their types,	
16	Construction, working and application of lithium- ion battery, Ni-Cd battery.	
	UNIT No. 3	
	Engineering Materials	
17	Introduction of Portland cement, Raw materials for the manufacturing of portland cement.	
18	Manufacturing of portland cement by wet Process	
19	Properties of cement- Setting and hardening	
20	Heat of hydration and soudness of cement	
21	Introductuion of Lubricants and its classification, Machanism of Lubrication	
22	Testing of lubricants for viscosity and viscosity index, flash and fire point	
23	Industrial Material: Definition, properties and Applications of ceramics & refractories.	
24	Industrial Material: Definition, properties and Applications of thermal insulating material and Nanomaterial	
	UNIT No. 4	
	Energy Science	

	Energy Science	
25	Introduction of Fuels and its classification, Calorific value and its type- net and gross calorific value	
26	Proxiamte and its significance	
27	Ultimate analysis and its significance	
28	Cracking of petroleum fractions, Use of gasoline and diesel in internal combusion engines	
29	Knocking, chemical constitution and knoking properties, octane and cetane number	
30	Numerical based on combustion	
31	Numerical based on combustion	
32	Numerical based on combustion	
	UNIT No. 5	
	Polymer chemistry	
33	Introduction, Classification of polymer on the basis of their structure	
34	Method of polymerization	
35	Cationic and Anionic mechanism of polymerization	
36	Thermosetting and thermoplastic resin	
37	Preparation, properties and uses of PVC, Teflon,	
38	Preparation, properties and uses Bakelite, Introduction of Natural rubber, vulcanization of rubber	
39	Preparation, properties and uses of synthetic rubber-styrene, nitrile and butyl rubber	
40	Biodegradable polymers: properties and applications, Conducting polymers: Introduction, types of conducting polymer and their examples	
	UNIT No. 6	
41	Phase rule, Explanation of the terms: Phase, Components and Degree of Freedom	
42	Application of Phase rule to One Component System (Water System),	
43	Condensed phase rule and its application to two component system (Bi-Cd).	
44	Principles and instrumentation of spectrophotometry	
45	U.V and.IR spectroscopy	
46	Principle & instrumentation of NMR spectroscopy	
47	Surface characterization technique: X-ray diffraction	

Prof. Ram Meghe Institute of Technology & Research, Badnera

Department of First Year Engineering Department

A.Y.: 2021-22 **Lesson Plan**

Name of Faculty :- Prof. Dr N.B. Ingale		Semester: I
Subject:	Engineering Physics	Section : A
Lecture No.	Topics	Remark
1	Introduction	
2	Formation of energy band	
3	Classification of solid on the basis of energy band gap	
4	Fermi level in intrinsic ,P and N type semiconductor	
5	Effect of temperature and impurity on Fermi level	
6	Fermi level equation for intrinsic semiconductor	
7	Conductivity Equation, Problems	
8	Law of mass action and Charge neutrality equtions	
9	Hall effect	
10	Problems	
11	Properties of photon	
12	De Broglie's hypothesis and equation	
13	Compton effect and its characteristics	
14	Compton shift Eqution	
15	Problems	
16	Heisenberg's Uncertainty principle	
17	Energy-time equation	
18	Applications of Uncertainty principle	
19	Problems	
20	Basic concepts of electric and magnetic field	
21	Motion of electron in transversed electric field	
22	Motion of electron in transversed magnetic field	
23	deflection of electron confined to a small region	
24	motion of e- in cross electric and magnetic field	
25	Positive Rays ,Bainbridge mass spetrograph	
26	CRO:Block diagram, its working and applications	
27	Problems	
28	Interference:Thin film due to reflected light	
29	Newton's ring	
30	Applications of Newton's rings	
31	Diffraction:Theory and Grating equation	
32	Problems	
33	FIBER OPTICS : Construction and principle	
34	Acceptance angle and NA	
35	Types of Optical fiber	
36	Attenuation,Advantages and applications	
37	Problems	
38	Laser: Properties,Applications	
39	Absorption, spontaneous and stimulated emission	
40	Metastable state, Pumping, Three level laser	
41	Ruby laser	
42	Acaustics of Buildings: reverberation,Sabine's Eqn.	
43	Basic Requirements for Acoustically Good Hall	
44	Factors affecting acoustically Good Hall	
45	Problems	
46	Continuity equation,Viscosity, Stoke's law	
47	Bernoulli's theorem	
48	Poiseuille's Equation	
49	Ultrasonics: Properties, Production of Ultrasonic	
50	Uses of Ultrasonics waves and Problems	

Dr N.B. Ingale

Prof. Ram Meghe Institute of Technology & Research, Badnera

Department of First Year Engineering Department

AY: 2021-22

Lesson Plan

Name of Faculty :- Prof. C.T. Prajapati		Semester: I
Subject:	Engineering Mechanics	Section : C
Lecture No.	**Topics**	**Remark**
1	RESULTANT- Concept of a force	
2	RESULTANT- Moment of a force about a point and about an axis, couple	
3	RESULTANT- Resolution and compositions of coplanar force system.	
4	RESULTANT- Reduction of system of forces into a force and a couple equivalent force system.	
5	EQUILIBRIUM- Free-body diagrams, equations of equilibrium	
6	EQUILIBRIUM- Problems of equilibrium involving co-planar force system acting on a particle	
7	EQUILIBRIUM- Rigid body and system of rigid bodies	
8	EQUILIBRIUM- Problems of equilibrium of non-coplanar concurrent force system	
9	TRUSS- Analysis of simple plane trusses	
10	TRUSS- Method of joints	
11	TRUSS- Method of sections	
12	TRUSS- Analysis of frames involving ideally connected members.	
13	FRICTION- Coulomb's law of friction	
14	FRICTION- Problems on Friction	
15	FRICTION- Static belt friction	
16	FRICTION- Wedge friction	
17	CENTROID- First moment of an area and centroid	
18	CENTROID- Second moment of an area	
19	CENTROID- Centroid	
20	CENTROID- Product of area	
21	CENTRE OF GRAVITY- Transfer theorems, polar moment of inertia	
22	CENTRE OF GRAVITY- Radius of gyration	
23	CENTRE OF GRAVITY- Definition of principle axes and principle moment of inertia.	
24	KINEMATICS- Definitions of displacement, velocity and acceleration and their relations	
25	KINEMATICS- Rectilinear motion under variable & constant accelerations	
26	KINEMATICS- Motion curves	
27	KINEMATICS- Simple relative motion between two particles	
28	KINEMATICS- Curvilinear motion using rectangular coordinates	
29	KINEMATICS- Normal and tangential components	
30	KINEMATICS- Kinematics of rigid body motion in rectilinear translation	
31	KINEMATICS- Rotation about a fixed axis and plane motion	

Prajapati

32	KINETICS- Kinetics of rectilinear and circular motion of a particle acted upon by constant force system	
33	KINETICS- Kinetics of rectilinear and circular motion of a particle acted upon by variable force system	
34	KINETICS- D'Alembert's principle	
35	KINETICS- Concept of dynamic equilibrium	
36	KINETICS- Rectilinear motion of several interconnected particles	
37	KINETICS- Kinetics of rigid body rectilinear translation	
38	KINETICS- Rotation about a fixed axis of rigid body	
39	WORK, POWER and ENERGY- Work-energy equation for motion of a particle	
40	WORK, POWER and ENERGY- Problems on motion of a particle	
41	WORK, POWER and ENERGY- System of particles	
42	WORK, POWER and ENERGY- Work energy equation for rigid bodies rectilinear translation	
43	LINEAR IMPULSE- Linear impulse, linear momentum, momentum equation for a particle and a system of particles	
44	LINEAR IMPULSE- Collision of two particles	
45	LINEAR IMPULSE- Coefficient of restitution	

Lecture No.	Topics	Remark
	Unit 4 - Orthographic Projection	
23	Introduction	
24	Problems on orthographic projection by first angle method	
25	Problems on orthographic projection by first angle method	
26	Problems on orthographic projection by first angle method	
27	Problems on orthographic projection by third angle method	
28	Problems on orthographic projection by third angle method	
29	Problems on orthographic projection by third angle method	
	Unit 5 - Isometric Views and Projection	
30	Introduction	
31	Problems on isometric views	
32	Problems on isometric views	
33	Problems on isometric views	
34	Problems on isometric views	
35	Problems on isometric projection	
36	Problems on isometric projection	
37	Problems on isometric projection	
	Unit 6 - Introduction to CAD software	
38	Introduction	
39	Drafting environment and screen	
40	Coordinate systems	
41	Editing commands	
42	Drafting of basic geometrical shapes	
43	Display commands and dimension command	
44	CAD software customization	

Lecture No.	Topics	Remark
	Unit 4 - Orthographic Projection	
23	Introduction	
24	Problems on orthographic projection by first angle method	
25	Problems on orthographic projection by first angle method	
26	Problems on orthographic projection by first angle method	
27	Problems on orthographic projection by third angle method	
28	Problems on orthographic projection by third angle method	
29	Problems on orthographic projection by third angle method	
	Unit 5 - Isometric Views and Projection	
30	Introduction	
31	Problems on isometric views	
32	Problems on isometric views	
33	Problems on isometric views	
34	Problems on isometric views	
35	Problems on isometric projection	
36	Problems on isometric projection	
37	Problems on isometric projection	
	Unit 6 - Introduction to CAD software	
38	Introduction	
39	Drafting environment and screen	
40	Coordinate systems	
41	Editing commands	
42	Drafting of basic geometrical shapes	
43	Display commands and dimension command	
44	CAD software customization	

Prof. Ram Meghe Institute of Technology & Research, Badnera

Department of First Year Engineering Department

AY:- 2021-22

Lesson Plan

Name of Faculty :- D. G. More — Semester:- I

Subject : Engg. Mathematics - I — Subject Code:-1A1/11945 — Section : E

Lect. No	Topics	Remark
1	**Unit I**:-Introduction of syllabus & university Examination Pattern.	
2	Succesive differentiation	
3	Leibnitz's theorem 1	
4	Leibnitz's theorem 2	
5	Expansion of a function by using Taylor's theorem.	
6	Expansion of a function by using Maclaurin's theorem.	
7	Indeterminate form 1	
8	Indeterminate form 2	
9	**Unit 2**:-Introduction of partial differentiation	
10	Partial differentiation	
11	Total differential coefficients 1.	
12	Exact differential.	
13	Euler's theorem on homogeneous function 1.	
14	Euler's theorem on homogeneous function 2.	
15	Maxima and Minima of a function by Lagrange's Method 1	
16	Maxima and Minima of a function by Lagrange's Method 2	
17	**Unit 3**:-Introduction of Complex Number	
18	Demoiver's theorem.	
19	Application of Demoiver's theorem 1.	
20	Application of Demoiver's theorem 2.	
21	Hyperbolic function	
22	Inverse hyperbolic function	
23	Separation of real and Imaginary parts of Complex Number	
24	Logarithm of Complex number	
25	**Unit 4**:-Introduction First order and first degree in various forms, Variable separable	
26	Homogeneous differential equation.	
27	Reducible toHomogeneous differential equation.	
28	Exact differential equation.	
29	Reducible to Exact differential equation.	
30	Linear differential equation.	
31	Reducible to Linear differential equation.	
32	Methods of Substitution.	
33	**Unit 5**:-Introduction of differential equation of first order and higher degree.	
34	Solvable for P 1.	
35	Solvable for P 2.	
36	Solvable for Y 1.	

37	Solvable for Y 2	
38	Solvable for X	
39	Application of D.E of first order and higher degree to the Problem on orthogonal trajectories	
40	Application of D.E of first order and higher degree to the Problem on Electrical Engineering	
41	**Unit 6**:-Introduction of Sequences and Series	
42	Convergence of sequences and series	
43	Tests for convergence	
44	Comparision Test	
45	Ratio Test	
46	Root Test	
47	Raabe's Test	
48	Range of Convergence	

Prof. Ram Meghe Institute of Technology & Research, Badnera
Department of First Year Engineering Department

AY: 2021-22

Lesson Plan

Name of Faculty :- Prof. Dr. D. V. Kapse

Semester:- 2

Subject: Engg. Mathematics-II Subject Code:-181/11949

Section: H

Lect No.	Topics	Remark
1	Unit I : Introduction to matrix	
2	Partitioning method for inverse	
3	Rank of the matrix	
4	Rank and Nullity Theorem	
5	Solution of simultaneous equations by matrix method.	
6	Characteristic equation,eigen values	
7	Eigen vectors	
8	Cayley Hamilton theorem to find inverse	
9	Unit II : Introduction to Fourier series and it's uses	
10	Fourier series for periodic function in the range (c,c+2L)	
11	Fourier Series in the range (c,c+2L)	
12	Half range fourier sine series	
13	Half range fourier cosine series	
14	Parseval's Theorem	
15	Harmonic Analysis: introduction	
16	Problems on Harmonic Analysis	
17	Unit III : Introduction to reduction formulae	
18	Reduction formulae	
19	Reduction formulae	
20	Gamma function and its properties	
21	Gamma function examples	
22	Beta function and its properties	
23	Examples of Beta function	
24	Relation between Beta and Gamma Function	
25	Unit IV : Rules of Differentiation under integral sign when limit's are constant	
26	Rules of Differentiation under integral sign when limit's are Parameter	
27	Tracing of curve in cartesian coordinates.	
28	Tracing of curve in polar coordinates.	
29	Tracing of curve in polar and parametric form	
30	Rectification in cartesian coordinates	
31	Rectification in cartesian coordinates	

32	Rectification in polar coordinate.	
33	**Unit V :** Introduction to Double integration.	
34	Double integration in polar coordinates	
35	Change the order of integration	
36	Change the order of integration	
37	Changing from cartesian to polar coordinates.	
38	Changing from cartesian to polar coordinates.	
39	Evaluation of Area by Double Integration	
40	Evaluation of Area by Double Integration	
41	**Unit VI :** Introduction and meaning of triple integration	
42	Triple integration in cartesian coordinates.	
43	Triple integration in cartesian coordinates.	
44	Triple integration in spherical polar coordinates.	
45	Volume of solid by triple integration.	
46	Volume of solid by triple integration.	
47	Introduction to mean and R.M.S values.	
48	Mean values and R.M.S values.	

AY :- 2021-22

Lesson Plan

Name of Faculty :- Prof. P. P. Thosare		Semester:- II
Subject:	Basic Electrical Engineering	Section D
Lecture No.	Topics	Remark
1	Importance of subject & Introduction to syllabus	
	Unit – I: Fundamentals	
2	Basic concept of voltage, current, Power and energy.	
3	Resistance, resistivity, conductance, conductivity, Ohm's Law	
3	Temperature effect on resistance , Temperature coefficient of resistance	
4	Numerical on Temperature coefficient of resistance.	
5	Series & Parallel circuits	
6	Numerical on Series & Parallel circuits	
7	Delta – Star & Star-Delta transformation	
8	Numerical on Star Delta transformation	
9	Kirchhoff's laws (KCL & KVL)	
10	Superposition Theorem	
11	Thevenin's Theorem	
12	Numericals on Superposition & Thevenin's Theorem	
	Unit-II: Magnetic Circuit & Electromagnetism	
13	Basic concepts of Magnetic flux, Flux density, MMF, Reluctance, Magnetic field intensity & their relationship	
14	Magnetic Leakage & Fringing of flux	
15	Series & Parallel magnetic circuit	
16	Series & Parallel magnetic circuit with air gap	
17	Series & Parallel magnetic circuit without air gap	
18	Numerical on series magnetic circuit	
19	Principles of electromagnetic induction, Self and mutual induction	
20	Magnetization curves	
	Unit – III : AC fundamentals	
	RMS and average values, Form factor, peak factor	
21	(for sinusoidal waveform only)	
22	Purely resistive, inductive & capacitive circuit	
23	Single phase AC Series circuit with resistance , inductance & Capacitance	
24	Numericals on RLC series circuit.	

25	Phasor diagrams for series circuit & Series resonance	
26	Impedance triangle, Active & reactive power.	
27	Resonance in Series R-L-C Circuit and Numericals	
	Unit – IV : Polyphase Circuit	
28	Generation of three phase EMF.	
29	3 Phase Balanced Delta and Star connected system,	
30	Voltage and Current relationship between phase and line quantities for star connection	
31	Numerical on three phase star connected system	
32	Voltage and Current relationship between phase and line quantities for Delta connection	
33	Numerical on three phase Delta connected system	
	Unit – V : Electrical Machines	
35	A) Single phase Transformer:	
36	Principle of operation	
37	Construction & Classification	
38	EMF equation, losses, efficiency, Regulation of Transformer	
39	Numericals on efficiency , regulation of transformer	
40	B) Electromechanical Energy Conversion:	
41	Construction & various parts of DC machines	
42	Classification of DC machines, Characteristics & applications of DC machines	
	Unit – VI : Electrical Apparatus & Safety	
43	Measurement of current & voltage (Ammeter & Voltmeter)	
44	Measurement of power & energy (Wattmeter & Energy- meter)	
45	Range extension of Ammeter, Voltmeter, Wattmeter & Energy- meter	
45	Necessity of Earthing, Limiting values for various installation, Types of Earthing (Pipe earthing & plate earthing)	
46	Measurement of current & voltage (Ammeter & Voltmeter)	

Prof. Ram Meghe Institute of Technology & Research, Badnera

Department of First Year Engineering Department

AY:	2021-22 Lession Plan	
Name	Prof. Shailesh S. Dhok	Semester:- I st
Subject	Computer Programming Subject Code:-1A4	Section :
Leture No.	Topics	Remark
Unit-I	**Fundamental of the Computer and Computing Concepts**	
Lect1	Generation of computers	
Lect2	Classification of computers	
Lect3	Basic Anatomy of Computer System,Input Devices, Processor, Output Devices, Memory Management	
Lect4	Types of Computer Software, Overview of Operating system,	
Lect5	Networking Concepts, Microsoft Office,	
Lect6	Number systems: Decimal, Binary, Hexadecimal, Octal	
Lect7	Conversion of Numbers,Binary Arithmetic Operations	
Lect8	Programming Languages, Logic Gates	
Unit-II	**C Fundamentals:**	
Lect9	Introduction, Importance of C	
Lect10	Basic Structure of C Programs, Program execution	
Lect11	Basic programs based on C such as Printing Message	
Lect12	Adding two numbers, Interest calculations	
Lect13	Use of subroutines, math function	
Lect14	C tokens, Keywords and Identifiers,	
Lect15	Operators & their precedence, Assignment statement.	
Lect16	Declaration of Variables, Declaration of Storage Class	
Unit-III	**Operators, Expression and Input-Output operation**	
Lect17	Operators, Types of Operators: Arithmetic, Relational	
Lect18	Assignment, Increment-decrement	
Lect19	Logical operator Assignment, Conditional operator	
Lect20	Bitwise operator, Special operator	
Lect21	Evaluation of Expression	
Lect22	Precedence of Arithmetic Operators	
Lect23	Input-Output Operation: Reading and Writing Character	
Lect24	Formatted Input, Formatted Output.	
Unit - IV	**C Control constructs**	
Lect25	Decision-making using if, if-else	
Lect26	Nested if, else if ladder	
Lect27	switch-case statement	
Lect28	Operator, GotoOperator	
Lect29	Loops using for, while, do-while statements	
Lect30	break and continue statements	
Lect31	Jumps in loop	
Lect32	Concise Test Expressions	
Unit - V	**Array, Strings and Structures**	
Lect33	Introduction to array, One Dimensional Array: Declaration & Initialization,	

Lect34	Two Dimensional: Declaration & Initialization, Multi Dimensional,	
Lect35	Strings: Declaration and Initialization, Reading String from terminal, Writing String to Screen	
Lect36	Putting Strings together, Comparison of Two Strings	
Lect37	String-Handling Functions	
Lect38	Table of Strings, Other features of String,	
Lect39	Structures – Define, Declaration	
Lect40	Accessing the members of a structure	
Unit - VI	**User Defined Functions, Pointers and File Management**	
Lect41	Functions, Need for User defined Functions	
Lect42	Multi Function Program, Elements of User Defined Functions	
Lect43	Return Values and their types, Function Calls	
Lect44	Function Declaration, and Categories of Functions	
Lect45	Definition and uses of pointers, Accessing the address of a variable,	
Lect46	Introduction to File Management	
Lect47	Defining and Opening File, Closing File, Input/output Operations on File.	
Lect48	Input/output Operations on File.	

Prof. Ram Meghe Institute of Technology & Research, Badnera

Department of First Year Engineering Department

AY:- 2021-22

Lesson Plan

Name of Faculty :- Prof. DR - K.D. Umaley		Semester:- II
Subject: ENGG. CHEMISTRY		Section : A
Lecture No.	Topics	Remark
	Water Treatment and Analysis	
1	Introduction, Hardness of water, Types of hardness - temporary & permenant hardness, Units of Hardness and their inter-conversion	
2	Hardness determination by EDTA method	
3	Disadvantages of hard of water, Boiler troubles: Scale and Sludge formation, Caustic embritlement,	
4	Priming & Foaming, Boiler corrosion	
5	Zeolite process and Reverse Osmosis (RO)	
6	Softening of hard water by Ion exchange process & its regeneration	
7	Numerical Problem based on Hardness of water	
8	Numerical Problem based on Zeolite process	
	UNIT No. 2	
	Corrosion and Energy storage system	
9	Introduction of corrosion, Dry and its mechanism	
10	Wet corrosion and its mechanism	
11	Pitting, waterline and inter-granular corrosion	
12	Galvonic and stress corrosion	
13	Role of design and material selection in corrosion control	
14	Anodic and cathodic protection, Hot dipping(Galvanizing and tinning processes)	
15	Basic principles of batteries & their types,	
16	Construction, working and application of lithium- ion battery, Ni-Cd battery.	
	UNIT No. 3	
	Engineering Materials	
17	Introduction of Portland cement, Raw materials for the manufacturing of portland cement.	
18	Manufacturing of portland cement by wet Process	
19	Properties of cement- Setting and hardening	
20	Heat of hydration and soudness of cement	
21	Introductuion of Lubricants and its classification, Machanism of Lubrication	
22	Testing of lubricants for viscosity and viscosity index, flash and fire point	
23	Industrial Material: Definition, properties and Applications of ceramics & refractories.	
24	Industrial Material: Definition, properties and Applications of thermal insulating material and Nanomaterial	
	UNIT No. 4	
	Energy Science	

	Energy Science	
25	Introduction of Fuels and its classification, Calorific value and its type- net and gross calorific value	
26	Proxiamte and its significance	
27	Ultimate analysis and its significance	
28	Cracking of petroleum fractions, Use of gasoline and diesel in internal combusion engines	
29	Knocking, chemical constitution and knoking properties, octane and cetane number	
30	Numerical based on combustion	
31	Numerical based on combustion	
32	Numerical based on combustion	
	UNIT No. 5	
	Polymer chemistry	
33	Introduction, Classification of polymer on the basis of their structure	
34	Method of polymerization	
35	Cationic and Anionic mechanism of polymerization	
36	Thermosetting and thermoplastic resin	
37	Preparation, properties and uses of PVC, Teflon,	
38	Preparation, properties and uses Bakelite, Introduction of Natural rubber, vulcanization of rubber	
39	Preparation, properties and uses of synthetic rubber-styrene, nitrile and butyl rubber	
40	Biodegradable polymers: properties and applications, Conducting polymers: Introduction, types of conducting polymer and their examples	
	UNIT No. 6	
41	Phase rule, Explanation of the terms: Phase, Components and Degree of Freedom	
42	Application of Phase rule to One Component System (Water System),	
43	Condensed phase rule and its application to two component system (Bi-Cd).	
44	Principles and instrumentation of spectrophotometry	
45	U.V and.IR spectroscopy	
46	Principle & instrumentation of NMR spectroscopy	
47	Surface characterization technique: X-ray diffraction	

Department of Management Studies
Semester –I
Teaching Plan-2021-2022
Subject: Accounting for Managers
Subject Teacher: Prof. G.S.KALMEGH

Unit No.	Topic No.	Topic with detail course outlines	Text and References	No. of Periods Allotted	Remark if Any
I	01	Introduction to Accounting and Book Keeping, Single Entry System	Accounting for Mgt., Dr. Jawaharlal, Himalaya Pub. House. Accounting for Mgt., S.K. Bhattacharya and Dearden J., New Delhi, Vikas, 1996 Accounting for Mgt., Khan and Jain.	01	
	02	Double Entry System, Basic Accounting Terms		01	
	03	Financial Accounting, Management Accounting & Cost Accounting		01	
	04	Accounting Standards: Introduction, GAAP		01	
	05	IFRS, GAAP Vs IFRS		01	
	06	Case Study and Situation		01	
Total Lecture				**06**	
II	01	Preparation of Accounting Books: 3 Golden Rules of Accounting	Accounting for Mgt., Dr. Jawaharlal, Himalaya Pub. House. Accounting for Mgt., S.K. Bhattacharya and Dearden J., New Delhi, Vikas, 1996 Accounting for Mgt., Khan and Jain.	01	
	02	Journal Entries		01	
	03	Ledger Preparation		01	
	04	Trial Balance		02	
	05	Preparation of Trading Account, Manufacturing Account: Part 1		01	
	06	Profit and Loss Account		01	
	07	Understanding Balance Sheet		01	
	08	Numerical on Balance Sheet			
	09	Final Account Problems: Part 1			
	10	Final Account Problems: Part 2			
	11	Comparative Analytical Techniques (CAT)			
	12	Relative Analytical Techniques (RAT)			
Total Lecture				**12**	
III	01	Depreciation Methods: Part - I	Accounting for Mgt., Dr. Jawaharlal, Himalaya Pub.	01	
	02	Depreciation Methods: Part		01	

		- II	House. Accounting for Mgt., S.K. Bhattacharya and Dearden J., New		
	03	Inventory Valuation Methods – Part I		01	
	04	Inventory Valuation Methods – Part II		01	
	05	Inventory Valuation Methods – Part III		01	
	06	Case Study and Situation		01	
Total Lecture				**06**	
IV	01	Management Accounting Concept, Need, Importance & Scope	Accounting for Mgt., Dr. Jawaharlal, Himalaya Pub. House. Accounting for Mgt., S.K. Bhattacharya and Dearden J., New Delhi, Vikas, 1996 Accounting for Mgt., Khan and Jain.	01	
	02	Budget & Budgetary control: Part I		01	
	03	Budget & Budgetary control: Part II		01	
	04	Budget & Budgetary control: Part III		01	
	05	Performance & zero Based Budgeting		01	
	06	Case Study and Situation		01	
Total Lecture				**06**	
V	01	Cost Sheet: Introduction, Elements of Cost Sheets	Accounting for Mgt., Dr. Jawaharlal, Himalaya Pub. House. Accounting for Mgt., S.K. Bhattacharya and Dearden J., New Delhi, Vikas, 1996 Accounting for Mgt., Khan and Jain.	01	
	02	Types of Costing, Costing for Decision Making		01	
	03	Marginal Costing: Part I		01	
	04	Marginal Costing: Part I		01	
	05	Absorption Costing: Part I		01	
	06	Absorption Costing: Part II		01	
	07	Case Study and Situation		01	
Total Lecture				**07**	

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HEAD
Department of Management Studies
P.R.M.I.T. & R. Badnera

PRMIT&R

Department of Management Studies(MBA)

Session Plan 2021-2021

Business Ethics

Subject Teacher: Prof. Rajkumar K Dhanuka

Unit No	Topic	Reference Book	Estimated Lectures
Unit No - I	INDIAN MANAGEMENT Indian Management – Principles	Indian Ethos and Values ,N.M.Khandelwal, Himalaya Publications	2
	Models & Theory of Karma	Indian Ethos and Values ,N.M.Khandelwal, Himalaya Publications	2
	Theory and Practices of Holistic Management and its relevance	Indian Ethos and Values ,N.M.Khandelwal, Himalaya Publications	2
	Case Lets & Case Study	Indian Ethos and Values ,N.M.Khandelwal, Himalaya Publications	2
Unit No - II	ETHICS Ethics – Meaning & Objectives	Business Ethics By:- CSV Murthy, Himalaya Publications	1
	Sources of Ethics	Business Ethics By:- CSV Murthy, Himalaya Publications By: -Frank Jefkins (Pearson Publication)	1
	Types of Business Ethics	Business Ethics By:- CSV Murthy, Himalaya Publications By: -Frank Jefkins (Pearson Publication)	1
	Factors influencing Business Ethics	Business Ethics By:- CSV Murthy, Himalaya Publications	2
	Ethics V/s Morals and Values	Business Ethics By:- CSV Murthy, Himalaya Publications	1
	Case Lets & Case Study	Indian Ethos and Values ,N.M.Khandelwal, Himalaya Publications	1
Unit No - III	MANAGING ETHICS Managing Ethics – Theories of Ethics	Business Ethics By:- CSV Murthy, Himalaya Publications	1
	Ethical Dilemma & Codes of Ethics , Behavioral Aspects of Ethics and Values	Business Ethics By:- CSV Murthy, Himalaya Publications	2
	Normative Ethics in Management, Need and Values of Ethics in Global Change	Business Ethics By:- CSV Murthy, Himalaya Publications	2

	Case Lets & Case Study	Indian Ethos and Values ,N.M.Khandelwal, Himalaya Publications	2
Unit No - IV	INDIAN VALUES IN MANAGEMENT Indian Values in Management – Secular and Spiritual Values	Business Ethics By:- CSV Murthy, Himalaya Publications Indian Ethos and Values ,N.M.Khandelwal, Himalaya Publications	1
	Science and Human Values	Business Ethics By:- CSV Murthy, Himalaya Publications	2
	Lessons from Ancient Indian Educational System	Business Ethics By:- CSV Murthy, Himalaya Publications Indian Ethos and Values ,N.M.Khandelwal, Himalaya Publications	1
	Case Lets & Case Study	Indian Ethos and Values ,N.M.Khandelwal, Himalaya Publications	2
Unit No - V	STRESS MANAGEMENT Stress Eustress & distress	Business Ethics By:- CSV Murthy, Himalaya Publications	1
	Indian Perspective of Stress Management	Indian Ethos and Values ,N.M.Khandelwal, Himalaya Publications	1
	Reasons for stress at workplace	Business Ethics By:- CSV Murthy, Himalaya Publications Indian Ethos and Values ,N.M.Khandelwal, Himalaya Publications By: -Frank Jefkins (Pearson Publication)	2
	Coping with a stress	Indian Ethos and Values ,N.M.Khandelwal, Himalaya Publications	1
	Case Lets & Case Study	Indian Ethos and Values ,N.M.Khandelwal, Himalaya Publications	2
Total Lectures required to Cover Syllabus			35

HEAD
Department of Management Studies
P.R.M.I.T. & R. Badnera

Department of Management Studies					
Semester – I (Session 2021-2022)					
Subject: Managerial Economics					
SUBJECT TEACHER: Prof. P. A. Kalmegh					
Unit No.	**Topic No.**	**Topic with detail course outlines**	**Text and References**	**No. of Periods Allotted**	**Remark**
I	1	Introduction to Managerial Economics	Managerial Economics- Dr. D.M. Mithani HP Managerial Economics- Geetika	1	Total Lectures for Unit I: 6
	2	Concept & Need of Managerial Economics		1	
	3	Scope of Managerial Economics		1	
	4	Techniques and Applications of Managerial Economics		2	
	5	Case Study		1	
II	1	Utility Analysis & Marshal Approach	Managerial Economics- Dr. D.M. Mithani HP Managerial Economics- Geetika Managerial Economics- H. L. Ahuja	1	Total Lectures for Unit II: 8
	2	Law of diminishing marginal utility & problems		1	
	2	Demand Analysis, Determinants of demand		1	
	3	Demand Function, Law of Demand-problems		1	
	4	Elasticity of Demand and demand forecasting.		1	
	5	Law of Supply and Supply Analysis		1	
	6	Case Study/ Problems		2	
III	1	Intro. To production, Production & Cost function,	Managerial Economics- Dr. D.M. Mithani HP Managerial Economics- Geetika Managerial Economics- Ahuja	1	Total Lectures for Unit III: 8
	2	Law of diminishing marginal returns		1	
	3	Production Iso-quant, Iso-cost, Expansion path		1	
	4	Problems on Production Iso-quant, Iso-cost		1	
	5	Economies and Diseconomies of scale		1	
	6	short run and long run cost behavior		1	
	7	Case Study/ Problems		2	
IV	1	Theories of firm	Managerial Economics- Dr. D.M. Mithani HP Managerial Economics- Grrtika Managerial Economics- Ahuja	1	Total Lectures for Unit IV: 8
	2	Profit Maximization		2	
	3	Sales Maximization		1	
	4	Managerial Utility Model		1	
	5	Simon Satisfying Behaviour Model		1	
	6	Case Study/Problems		2	
V	1	Market Structure-Perfect Competition,	Managerial Economics- Dr. D.M. Mithani HP Managerial Economics- H. L. Ahuja	1	Total Lectures for Unit V: 6
	2	Monopoly, Oligopoly, Monopolistic Competition,		1	
	3	short term pricing in these market structure		2	
	4	Case Study/ Problems		2	
			Total Lectures Required	**36**	

HEAD
Department of Management Studies
P.R.M.I.T. & R. Badnera

Department of Management Studies
Semester –I (Session 2021-2022)
Subject: Management Information System
SUBJECT TEACHER: Prof. S. B. Diwan

Unit No.	Topic No.	Topic with detail course outlines	Text and References	No. of Periods Allotted	Remark
I	1	Management Information System : An Overview	Jawadekar W.S., Management Information System; D.P.Goyal, Management Information System; Gupta, Management Information System	1	Total Lectures for Unit I: 6
	2	Nature and Scope of MIS		1	
	3	Subsystems of MIS , MIS & Computer		2	
	4	MIS in Academics, MIS in Business		1	
	5	Caselet on Subsystem on MIS & MIS in Business		1	
II	1	Development of MIS: Information Requirement	Jawadekar W.S., Management Information System; D.P.Goyal, Management Information System; Gupta, Management Information System	1	Total Lectures for Unit II: 8
	2	Designing of MIS		1	
	3	Implementation of MIS		1	
	4	System Development Models		2	
	5	Quality in MIS		1	
	6	MIS Life Cycle		1	
	7	Caselet on MIS Designing, Implementation of MIS		1	
III	1	Decision-Making concepts	Jawadekar W.S., Management Information System; D.P.Goyal, Management Information System; Gupta, Management Information System	1	Total Lectures for Unit III: 8
	2	Decision Making : Decision Making Process		1	
	3	Stages in Decision Making ,Individual & Organizational Decision Making		2	
	4	Decision Making Models		1	
	5	Information System support for Decision Making Phase, MIS and Decision-Making		2	
	6	Caselet on Decision Making in MIS		1	
IV	1	Decision Support System : Concept, Constructing a DSS	Jawadekar W.S., Management Information System; D.P.Goyal, Management Information System; Gupta, Management Information System	1	Total Lectures for Unit IV: 8
	2	Executive Information System(EIS)		1	
	3	Artificial Intelligence System(AIS)		1	
	4	Knowledge Based Expert System(KBES)		2	
	5	Enterprise Management System(EMS)		1	
	6	Decision Support Management System(DSMS)		1	
	7	Caselet on Enterprise Management System		1	
V	1	MIS Application: Enterprise Resource Planning(ERP)	Jawadekar W.S., Management Information System; D.P.Goyal, Management Information System; Gupta, Management Information System	1	Total Lectures for Unit V: 6
	2	MIS & ERP		1	
	3	Business Process Re-Engineering(BPR)		1	
	4	MIS & BPR		1	
	6	Case Study on ERP		1	
	7	Case Study on BPR		1	
			Total Lectures Required	**36**	

HEAD
Department of Management Studies
P.R.M.I.T. & R, Badnera

Department of Management Studies				
Semester –I (Session 2021-2022)				
Lesson Plan				
Subject: Managerial Skills Development			**Subject Teacher: Yuvaraj Vaidya**	
Unit No.	**Topic No.**	**Topic with detail course outlines**	**Text and References**	**No. of Periods Allotted**
I	1	Managerial Skills- Nature & Concepts	http://arulmj.tripod.com/mgrlskls.html	2
	2	Objectives, significance	http://www.answers.com/Q/Explain_managerial_roles_and_managerial_skills	1
	3	Employability Skills	http://www.kent.ac.uk/careers/sk/top-ten-skills.htm	1
	4	Soft Skills	https://bemycareercoach.com/soft-skills/list-soft-skills.html	1
	5	Technical Skills.	http://study.com/academy/lesson/what-are-technical-skills-in-management-definition-examples-quiz.html	1
	6	Case Study	Uniersity Question Papers	1
II	7	Importance & Nature of communication,	Business Communication by M Raman & P Singh	1
	8	Verbal and Non Verbal,	Business Communication by U Rai & S Rai	1
	9	Talking and Speaking	Business Communication by M Raman & P Singh	1
	10	Principles of effective communication,	https://www4.uwm.edu/cuts/bench/commun.htm	1
	11	Process of communication,	Business Communication by U Rai & S Rai	1
	12	Barriers of Communication,	Business Communication by U Rai & S Rai	1
	13	Types of Communication.	Business Communication by U Rai & S Rai	1
	14	Case Study	Uniersity Question Papers	1
III	15	Do's and Don'ts of Business Writing	Business Communication by M Raman & P Singh	2
	16	Business correspondence	Business Communication by M Raman & P Singh	1
	17	Report Writing	Business Communication by M Raman & P Singh	1

	18	e-communication	Business Communication by M Raman & P Singh	1
	19	Resume Writing, C.V. Writing,	Business Communication by U Rai & S Rai	1
	20	Case Study	Uniersity Question Papers	1
IV	21	Listening Skills	Business Communication by M Raman & P Singh	1
	22	Body Language	http://www.businessballs.com/body-language.htm	1
	23	Public Speaking	Business Communication by M Raman & P Singh	1
	24	Negotiation Skill.	https://www.ldsjobs.org/ers/ct/articles/effective-negotiation-skills?lang=eng	1
	25	Case Study	Uniersity Question Papers	1
V	26	Interview Techniques	Business Communication by M Raman & P Singh	2
	27	Group Discussions	Business Communication by M Raman & P Singh	1
	28	Presentation Skill.	Business Communication by U Rai & S Rai	1
	29	Meetings	Business Communication by U Rai & S Rai	1
	30	Case Analysis	Uniersity Question Papers	1
	31	Brain Storming	http://www.mindtools.com/brainstm.html	1
	32	Paper Writing and Presentation	http://www.miami.edu/index.php/undergraduate_research_and_community_outreach/research_opportunities_for_um_undergrads/presentations_research_papers/	1
	33	Case Study	Uniersity Question Papers	1

Total lectures required	36

HEAD
Department of Management Studies
P.R.M.I.T. & R. Badnera

PRMIT&R

Department of Management Studies(MBA)

Session Plan 2021-2022

Organizational Behavior and Effectiveness

Subject Teacher: Prof. Rajkumar K Dhanuka

Unit No	Topic	Reference Book	Estimated Lectures
Unit No - I	Individual Behavior- Personality	Mainiero, L A & Tromley C.L. Developing Managerial Skills in OB. New Delhi, Prentice Hall of India, 1985.	1
	Learning	Mainiero, L A & Tromley C.L. Developing Managerial Skills in OB. New Delhi, Prentice Hall of India, 1985.	1
	Perception	Kolb, D. etc. Organizational Behaviour: An Experiential Approach. 5th ed. Englewood Cliffs, New Jersey, Prentice Hall Inc., 1991	1
	Attitude & Beliefs	Kolb, D. etc. Organizational Behaviour: An Experiential Approach. 5th ed. Englewood Cliffs, New Jersey, Prentice Hall Inc., 1991	2
	Case Lets & Case Study	University Question Papers	2
Unit No - II	Group Behavior – Meaning	French, W L., etc. Organization Development Theory, Practice and Research. 3rd ed. New Delhi, Universal Book Stall, 1990.	1
	Types of Groups,	French, W L., etc. Organization Development Theory, Practice and Research. 3rd ed. New Delhi, Universal Book Stall, 1990.	1
	Group Processes	Mainiero, L A & Tromley C.L. Developing Managerial Skills in OB. New Delhi, Prentice Hall of India, 1985.	1
	Group Dynamics – factors influencing intergroup behavior and managing intergroup behavior	Mainiero, L A & Tromley C.L. Developing Managerial Skills in OB. New Delhi, Prentice Hall of India, 1985.	2
	Case Lets & Case Study	University Question Papers	2
Unit No - III	Organizational Change – Concept & Need	Kolb, D. etc. Organizational Behaviour: An Experiential Approach. 5th ed. Englewood Cliffs, New Jersey, Prentice Hall Inc., 1991	1
	Change Process	Kolb, D. etc. Organizational Behaviour: An Experiential Approach. 5th ed. Englewood Cliffs, New Jersey, Prentice Hall Inc., 1991	1
	Reasons for	Mainiero, L A & Tromley C.L. Developing Managerial Skills in	1

	Resistance to Change		
	Measures to Overcome Resistance to Change	OB. New Delhi, Prentice Hall of India, 1985.	1
		Mainiero, L A & Tromley C.L. Developing Managerial Skills in OB. New Delhi, Prentice Hall of India, 1985.	
	Case Lets & Case Study	University Question Papers	2
Unit No - IV	Organizational Processes – Organizational Powe	De Nitish. Alternative Designs of Human Organizations. London, Sage, 1988.	2
	Organizational Politics	De Nitish. Alternative Designs of Human Organizations. London, Sage, 1988.	2
	Empowerment	French, W L., etc. Organization Development Theory, Practice and Research. 3rd ed. New Delhi, Universal Book Stall, 1990	1
	Conflict	French, W L., etc. Organization Development Theory, Practice and Research. 3rd ed. New Delhi, Universal Book Stall, 1990	1
	Case Lets & Case Study	University Question Papers	2
Unit No - V	Organizational Effectiveness – Creativity and Innovation	Abad, Ahmad. Etc. Developing Effective Organization. New Delhi, Sri Ram Centre for Industrial Relations, 1980.	1
	Corporate Governance	French, W L., etc. Organization Development Theory, Practice and Research. 3rd ed. New Delhi, Universal Book Stall, 1990.	1
	Management of Gender Issues	French, W L., etc. Organization Development Theory, Practice and Research. 3rd ed. New Delhi, Universal Book Stall, 1990.	2
	Case Lets & Case Study	University Question Papers	2
Total Lectures required to Cover Syllabus			34

HEAD
Department of Management Studies
P.R.M.I.T. & R. Badnera

Department of Management Studies, PRMIT&R, Badnera-Amravati.

Lesson Plan Year 2021-2022

Subject: Principle and Practices of Management (101)
Subject Teacher: Prof. A.E.Kharad

Unit No.	Topic No.	Topic with detail course outlines	Text and References	No. of Periods Allotted	Remark
I	1	The Concept of Management	T. Ramasamy, Principles of Management, 9th edition, Himalaya Publishing House, Mumbai, 2009	1	Total Lectures for Unit I: 7
	2	Development of management thought-various, approaches		1	
	3	Mathematical, Behavioral, Scholastic schools of management and systems		1	
	4	Contingency approaches to Management		1	
	5	Contribution of Taylor		1	
	6	Contribution of Fayol & Elton Mayo		1	
	7	Case study		1	
II	1	The Nature and Purpose of Planning, Objectives of Planning,	T. Ramasamy, Principles of Management, 9th edition, Himalaya Publishing House, Mumbai, 2009	2	Total Lectures for Unit II: 8
	2	Planning Premises, Policies, Procedures and Methods;		2	
	3	Forecasting and Planning, Planning Process,		2	
	4	The Process of Decision Making.		1	
	5	Case Study		1	
III	1	Organizing: Nature and Purpose of Internal Organization of Business Enterprise	Singh, Dalip Emotional Intelligence at Work, Response Books, Sage Publications, Delhi 2001. T. Ramasamy, Principles of Management, 9th edition, Himalaya Publishing House, Mumbai, 2009	1	Total Lectures for Unit III: 8
	2	Principles of Organizing; Span of Management		1	
	3	Departmentation Line and Staff Authority relationship; Service departments		2	
	4	Centralization vs. Decentralization of authority; Delegation of Authority		2	
	5	Committees, Staffing		1	
	6	Case Study		1	
IV	1	Directing, Nature of Directing, Leadership Concept and Styles	T. Ramasamy, Principles of Management, 9th edition, Himalaya Publishing House, Mumbai, 2009	2	Total Lectures for Unit IV: 7
	2	Motivation Concept, Theory: Maslow, Hertzberg, Supervision		2	
	3	Concept of Communication, Coordination; Need & Principles.		2	
	4	Case Study		1	
V	1	Control; Process of Control; Techniques and Tools	T. Ramasamy, Principles of Management, 9th edition, Himalaya Publishing House, Mumbai, 2009	2	Total Lectures for Unit V: 6
	2	Management by objectives		1	
	3	Participative Management		1	
	4	Management by exception		1	
	5	Case Study		1	
			Total Lectures Required	**36**	

HEAD
Department of Management Studies
P.R.M.I.T. & R. Badnera

Department of Management Studies(M.B.A.)

Semester – (Session 2021-2022)

Subject: Quantitative Methods

SUBJECT TEACHER: Prof. K.S.Bijawe

Unit No.	Topic No.	Topic with detail course outlines	Text and References	No. of Periods Allotted	Remark
I	1	Introduction to Mathematical Derivatives	Business Statistics by S.P. Gupta and M.P.Gupta , Fundamentals of Operations Research Macmillan By Sharma.	1	Total Lectures for Unit I: 7
	2	Introduction to Quantitative Methods applications		2	
	3	importance, scope, limitations		2	
	4	Types		1	
	5	Revision		1	
II	1	Arithmetic Progression	Business Statistics by S.P. Gupta and M.P.Gupta , Fundamentals of Operations Research Macmillan By Sharma.	2	Total Lectures for Unit II: 8
	2	Geometric Progression		2	
	3	Harmonic Progression & their managerial application.		2	
	4	Determinants & Matrices		1	
	5	Revision		1	
III	1	Frequency Distribution & their analysis	Business Statistics by S.P. Gupta and M.P.Gupta , Fundamentals of Operations Research Macmillan By Sharma.	2	Total Lectures for Unit III: 7
	2	Measures of Central tendency		2	
	3	Measures of Dispersion.		2	
	4	Revision		1	
IV	1	Correlation & Regression analysis	Business Statistics by S.P. Gupta and M.P.Gupta , Fundamentals of Operations Research Macmillan By Sharma.	3	Total Lectures for Unit IV: 6
	2	Time series Analysis & forecasting		2	
	3	Revision		1	
V	1	Linear Programming: Formulation & Graphical solution method	Linear Programming and Decision Making By Narag, Business Statistics by S.P. Gupta and M.P.Gupta ,	2	Total Lectures for Unit V: 8
	2	Probability theory		2	
	3	types, distributions		2	
	4	Bi-nomial, Poisson & Normal		1	
	5	Revision		1	
			Total Lectures Required:	**36**	

HEAD
Department of Management Studies
P.R.M.I.T. & R. Badnera

Department of Management Studies

Semester –II (Session 2021-2022)

Subject: Business Environment

SUBJECT TEACHER: Prof. R.K.Dhanuka

Unit No.	Topic No.	Topic with detail course outlines	Text and References	No. of Periods Allotted	Remark
I	1	Concept, Nature and Scope of Business	Essentials of Business Environment by K. Aswathappa Business Environment by Fernando Pearson	1	Total Lectures for Unit I: 7
	2	Business Organization, Industry and Types		1	
	3	Economy-Industry-Company Interface-Case study		2	
	4	Relevant Environment		1	
	5	Case Study		2	
II	1	Business Environment- Introduction & Case study	Essentials of Business Environment by K. Aswathappa & Business Environment by Vivek Mittal & Francis Cherunilam, : Business Environment Text & Cases, Himalaya Publishing House	1	Total Lectures for Unit II: 7
	2	Detailing the Types of Environment		2	
	3	Controllable and Non Controllable		1	
	4	External and Internal Environment		1	
	5	Case Study		2	
III	1	Business & Society, Social Audit of Business	Essentials of Business Environment by K. Aswathappa & Business Environment by Fernando Pearson	2	Total Lectures for Unit III: 8
	2	Foreign Direct Investment		2	
	3	Economic Zones: SEZ, REZ, AEZ		2	
	4	Case Study		2	
IV	1	Business in Post LPG Scenario	Essentials of Business Environment by K. Aswathappa & Business Environment by Vivek Mittal & Francis Cherunilam, : Business Environment Text & Cases, Himalaya Publishing House	1	Total Lectures for Unit IV: 7
	2	Disinvestment		1	
	3	WTO Agreements		2	
	4	Business & Regional Blocks		1	
	5	Case Study		2	
V	1	Financial Sector Reforms	Essentials of Business Environment by K. Aswathappa & Business Environment by Vivek Mittal & Francis Cherunilam, : Business Environment Text & Cases, Himalaya Publishing House	1	Total Lectures for Unit V: 7
	2	Fiscal and Monetary Sector Reforms , ,		1	
	3	Economic Reforms		1	
	4	Social Justice		1	
	5	Business Environment Issues- Tourism and Hospitality Industry		1	
	6	Health Care and Knowledge Industry		1	
	7	Case Study		1	
			Total Lectures Required:	**36**	

HEAD
Department of Management Studies
P.R.M.I.T. & R. Badnera

Prof. Ram Meghe Institute of Technology & Research, Badnera
Department of Management Studies(M.B.A.)

Lesson Plan

Subject: Financial Management

Semester –II (Session 2021-2012)
Subject Teacher: Prof. A.E.Kharad

Unit No.	Topic No.	Topic with detail course outlines	Text and References	No. of Periods Allotted	Remark
I	1	Financial Management-Aims & Objectives	Prasanna Chandra, "Financial Management-Theory and Practice", Tata McGraw Hill 4th, 5th, 6th , 7th Ed	1	Total Lectures for Unit I: 08
	2	Financial Analysis Techniques		2	
	3	Financial control: Cost-Volume Profit Analysis		2	
	4	Financial control: Operating & Financial Leverage		2	
	5	Case study		1	
II	1	Investment & capital structure Decisions	Bhalla V.K.: Financial Management and Policy 2nd ed. New Delhi Anmol, 1998.	2	Total Lectures for Unit II: 07
	2	Optimum Capital structure		2	
	3	Time -value of money		2	
	4	Case Study		1	
III	1	Instruments of Short term Financing	Financial Management, 6th ed., Tata McGraw Hill Education Pvt. Ltd. 2012.	1	Total Lectures for Unit III: 06
	2	Instruments of Long term Financing		1	
	3	Cost of different sources of raising capital		2	
	4	Weighted Average cost of capital		1	
	5	Case Study		1	
IV	1	Valuations Bonds & Stocks	Prasanna Chandra, "Financial Management-Theory and Practice", Tata McGraw Hill 4th, 5th, 6th , 7th Ed	2	Total Lectures for Unit IV: 8
	2	Rates of return		2	
	3	Methods of Capital Budgeting		2	
	4	Case Study		2	
V	1	Management and Estimation of Working Capital	Working Capital management. Dr. P.Periasamy, Himalaya Publication.	2	Total Lectures for Unit V: 7
	2	Internal Financing		1	
	3	Dividend Policy	Bhalla V.K.: Financial Management and Policy 2nd ed. New Delhi Anmol, 1998	2	
	5	Case Study		2	
			Total Lectures Required	**36**	

HEAD
Department of Management Studies
P.R.M.I.T. & R. Badnera

Department of Management Studies

Semester –II (Session 2021-2022)

Subject: Human Resource Management

Subject Teacher: Prof. M.M.Nistane

Unit No.	Topic No.	Topic with detail course outlines	Text and References	No. of Periods Allotted	Remark
I	**1**	HRM Scenario and Acquisition of Human Resources	Human Resource Management:P.Subba Rao	**2**	
	2	HRM the global and Indian Scenario, excellence		**1**	
	3	Human resource planning.		1	
	4	Human resource information system..		1	
	5	Recruitment and selection strategies		1	
	6	Case Let		1	
		Total		7	
II	1	Developing Human Resources- HRD-Concept, Multiple Goals	Human Resource Management:P.Subba Rao	2	Page. No: 23-25, 115-121, 131-137, 180-186, 152-168,
	2	Functions And Organizational Effectiveness		1	
	3	Performance Appraisal System		1	
	4	Potential Appraisal System And Succession Planning		1	
	5	Career Planning And Development		1	
	6	Assessment And Development Centers , Training And Development.		1	
	7	Videos, Case Lets		1	
		Total		**8**	
III	1	Motivating Human Resources: Motivation At Work-Concept,	Human Resource Management:P.Subba Rao,	2	256-264, 393-397, 63-65,
	2	Objectives, Types And Applications		1	
	3	Participative Management-Approaches And Applications		1	
	4	Employee Empowerment-Concept, Nature,		2	
	5	Objectives, Schemes And Applications.		1	
	6	Case Lets		1	
		Total		**8**	
IV	**1**	Maintenance of Human Resources	Human Resource Management:P.Subba Rao,	**2**	**201-208**
	2	Reward System		**1**	
	3	Quality of Work Life		**1**	
	4	Organisation Development		**1**	
	5	Case Let		1	
				6	
IV	**1**	Human Resources and Knowledge Era	Human Resource Management:P.Subba Rao,	**1**	
	2	Knowledge Creation and Management		**1**	**201-208**
	3	Virtual Organizations and HR Trends		**1**	
	4	Learning Organizations		**1**	
	5	Strategic Human Resource Management		**1**	
	6	International HRM-some Key issues.		1	
	7	Case Let		1	
		Total		7	
		Schedule Lecture		**36**	

HEAD
Department of Management Studies
P.R.M.I.T. & R. Badnera

Prof. Ram Meghe Institute of Technology & Research, Badnera
Department of Management Studies(M.B.A.)

Lesson Plan
Subject: Logistic Management
Semester –II (Session 2021-2022)
Subject Teacher: Prof. G.D. Pachaghare

Unit No.	Topic No.	Topic with detail course outlines	Text and References	No. of Periods Allotted	Remark
I	1	Introduction to logistics	Christopher M, Logistics and Supply Chain Management: Strategies for Reducing Costs and Improving Services, London, Pitsman, 1992.	1	Total Lectures for Unit I: 6
	2	Logistics interface with Production and Marketing		1	
	3	Performance Measures of Logistics		2	
	4	Reverse Logistics		1	
	5	Case study		1	
II	1	Logistics and Distribution System	Shridhar Bhat, Logistics & Supply Chain Management, Pearson Education, 2009	1	Total Lectures for Unit II: 8
	2	Logistics System Analysis and Design		2	
	3	Warehousing and Distributing Centers		2	
	4	Channels Management-Policies		1	
	5	Information Systems		1	
	6	Case Study		1	
III	1	Location; Transportation Systems	Ballon Ronald, Business Logistics/ Supply Chain Management, Pearson Education	1	Total Lectures for Unit III: 9
	2	Transportation Management		3	
	3	Transportation Infrastructure Facilities and Services		2	
	4	Dispatch and Routing Decisions and Models		2	
	5	Case Study		1	
IV	1	Inventory Management Decisions	Shapiro, R., Logistics Strategy: Cases and Concepts, St. Paul, West, 1995.	2	Total Lectures for Unit IV: 5
	2	Logistics Audit and Control		1	
	3	Packaging and Logistical Materials Handling		1	
	4	Case Study		1	
V	1	International Logistic Management	Christopher M, Logistics and Supply Chain Management: Strategies for Reducing Costs and Improving Services, London, Pitsman, 1992.	2	Total Lectures for Unit V: 8
	2	Global Logistics: Barriers, Drivers		1	
	3	Global Logistics: Export & Import Documentation		2	
	4	Regional Integration		1	
	5	Logistic Outsourcing		1	
	6	Case Study		1	
			Total Lectures Required	**36**	

HEAD
Department of Management Studies
P.R.M.I.T. & R. Badnera

Department of Management Studies Semester –II (Session 2021-2022)

Teaching Plan

Subject: Marketing Management.

Subject Teacher: Prof. A.V.Deshmukh

Unit No.	Topic No.	Topic with detail course outlines	Text and References	No. of Periods Allotted	Remark if Any
I	1	Nature & Scope of Marketing	**Marketing Management- Kotler, Koshy & Jha; Marketing Management-Text & Cases- Dr.K. Karunakaran**	1	
	2	Functions of Marketing Management		2	
	3	Marketing organisation		2	
	4	Corporate Orientation towards the Market Place		1	
	5	Marketing Environment & Environment Scanning		1	
	6	Case Study		1	
		Total Lectures		**8**	
II	1	Meaning & Significance of Marketing Planning	**Marketing Management- Kotler, Koshy & Jha; Marketing Management-Text & Cases- Dr.K. Karunakaran**	1	
	2	Strategic Planning		2	
	3	Planning of Marketing Mix Elements		2	
	4	Market Segmentation		1	
	5	Positioning		1	
	6	Case Study		1	
		Total Lectures		**8**	
III	1	Product Decisions, Product Mix	**Marketing Management- Kotler, Koshy & Jha; Marketing Management-Text & Cases- Dr.K. Karunakaran**	1	
	2	Product Life Cycle		2	
	3	New Product Development		1	
	4	Branding & Packaging Decisions		2	
	5	Pricing Model & Strategies		1	
	6	Case Study		1	
		Total Lectures		**8**	
IV	1	Physical Distribution Decisions & Targetting	**Marketing Management- Kotler, Koshy & Jha; Marketing Management-Text & Cases- Dr.K. Karunakaran**	2	
	2	Major Channels		1	
	3	Channels of Consume Product		1	
	4	Channels of Industrial Product		1	
	5	Case Study		1	
		Total Lectures		**6**	
V	1	Promotion Mix	**Marketing Management- Kotler, Koshy & Jha; Marketing Management-Text & Cases- Dr.K. Karunakaran**	1	
	2	Advertising		1	
	3	Sales Promotions		1	
	4	Publicity & Personal Selling		1	
	5	Introduction to Marketing Research & its Signficance		1	
	6	Case Study		1	
		Total Lectures		**6**	
				36	

HEAD
Department of Management Studies
P.R.M.I.T. & R. Badnera

Department of Management Studies(M.B.A.)
Semester – (Session 2021-2022)
Subject: Management Science
SUBJECT TEACHER: Prof. R.A.Kapadiya

Unit No.	Topic No.	Topics with detail course outlines	Text and References	No. of Periods Allotted	Remark if Any
I	1	Basic Concept of Management Science	Budnik, Frank S. Dennis, Mcleavey, Richard Mojena Principles of Operations Research 2nd ed. Richard, Irwin, Illinois-All India Traveller Bookseller, New Delhi, 1995	2	Total Lectures for Unit I: 8
	2	Role of Management Science in Decision Making-		2	
	3	Decision Theory		2	
	4	Decision Tree		2	
II	1	Integer Linear Programming	Sharma J.K. Operations Research: Theory and Applications New Delhi, Macmillan India Ltd. 1997	2	Total Lectures for Unit II: 6
	2	Branch & Bound Algorithm		2	
	3	Sensitivity Analysis		2	
III	1	Transportation Model	Sharma J.K. Operations Research: Theory and Applications New Delhi, Macmillan India Ltd. 1997	3	Total Lectures for Unit III: 7
	2	Assignment Model		4	
IV	1	Network Analysis-Pert	Sharma J.K. Operations Research: Theory and Applications New Delhi, Macmillan India Ltd. 1997	4	Total Lectures for Unit IV: 8
	2	Network Analysis-CPM		4	
V	1	Markov Chain Analysis-I	Budnik, Frank S. Dennis, Mcleavey, Richard Mojena Principles of Operations Research 2nd ed. Richard, Irwin, Illinois-All India Traveller Bookseller, New Delhi, 1995,	2	Total Lectures for Unit V: 7
	2	Game Theory		3	
	3	Simulation-I		2	
			Total Lectures Required:		**36**

HEAD
Department of Management Studies
P.R.M.I.T. & R. Badnera

Department of Management Studies

Semester –II (Session 2021-2022)

Teaching Plan

Subject: Production & Operations Management **Subject Teacher:Prof. R.A.Kapdia**

Unit No.	Topic No.	Topic with detail course outlines	Text and References	No. of Periods Allotted	Remark if Any
I	1.	Nature & scope of Production & Operations Management.	Chary S.N. , Adam & Ebert R.S. Goel Scholarly articles;	2	
	2.	Facility Location, Types of Manufacturing Systems		2	
	3.	Plant Layout; Types, Planning & Analysis		2	
	4.	Case Study		1	
II	1.	Production Planning & Control; Objectives, Functions, Production Planning, Production Control, Role of PPC.	M. Mahajan R.S Goel Chary S.N. ; Scholarly articles;	3	
	2.			2	
	3.	Production Scheduling		1	
	4.	Industrial Safety			
	5.	Case Study		1	
III	1.	Capacity planning- Measures, strategies, Aggregate Planning, Quality assurance, Quality control,	Martand Telsang Chary S.N.; Mahajan	3	
	2.	Statistical quality control- concept & types of control charts.		2	
	3.	TQM- ISO 9000, Quality circles.		2	
	4	Case Study		1	
IV	1.	Work Study: Importance, scope, work content, method study- steps, data recording techniques, motion economy.	Martand Telsang M. Mahajan	2	
	2.	Work measurement- Scope, computation of standard time, work sampling.		2	
	3.	Maintenance management- Objectives, scope, types of maintenance, maintenance organization		2	
	4.	Case Study		1	
V	1.	Materials Handling- Principles, types of material handling equipment & their applications, Purchase management, Stores management.	Chunawalla R.S. Goel Adam & Ebert	3	
	2.	Inventory control- objectives, scope, inventory models & their applications.		3	
	3.	Case Study		1	

Note: No of available session are 36 & include at least one case study in each unit

HEAD
Department of Management Studies
P.R.M.I.T. & R. Badnera

Department of Management Studies
Semester –II (Session 2021-2022)
Subject: Research Methodology
SUBJECT TEACHER: Prof. P. A. Kalmegh

Unit No.	Topic No.	Topic with detail course outlines	Text and References	No. of Periods Allotted	Remark
I	1	Introduction to research methodology	Research Methodology By Dr. S.L. Gupta & Hitesh Gupta Business Research Methodology J.K. Sachdeva	1	7
	2	Research and Scientific Method		1	
	3	Nature and Scope of research methodology		1	
	4	Problem & Hypothesis formulation		1	
	5	Research objectives		1	
	6	Value & cost of information		1	
	7	Case study/Numerical		1	
II	1	Organisation structure for research	Research Methodology By Dr. S.L. Gupta & Hitesh Gupta Research Methodology By C.R. Kothari	1	7
	2	Research process		2	
	3	exploratory research, descriptive & experimental research design		2	
	4	Research Agencies- Government and Non Government		1	
	5	Case study/Numerical		1	
III	1	Data-Types of Data	Research Methodology By C.R. Kothari Business Research Methodology J.K. Sachdeva	1	7
	2	Methods of primary data collection, observation, questionnaire, interview, survey method		1	
	3	Modern tools of data collection		1	
	4	Schedules, tabulation, analysis and interpretation of primary data		2	
	5	Case study/Numerical		2	
IV	1	Attitude measurement Techniques	Research Methodology By Dr. S.L. Gupta & Hitesh Gupta Business Research Methodology J.K. Sachdeva	1	6
	2	Motivational Research Techniques.		1	
	3	Sample Design		1	
	4	Selection of Appropriate Statistical Techniques.		1	
	5	Case study/Numerical		2	
V	1	Testing of Hypothesis	Business Research Methods By Naval Bajpai Research Methodology By C.R. Kothari	2	8
	2	Use of Statistical software		1	
	3	Factor analysis		1	
	4	conjoint analysis		1	
	5	Regression analysis,		1	
	6	Qualities of optimally viable research report		1	
	7	Case study/Numerical		1	
			TOTAL:36		

HEAD
Department of Management Studies
P.R.M.I.T. & R., Badnera

Department of Management Studies

Odd-Semester – III (Session 2021-22)-Teaching Plan

Subject Teacher**:**Prof.G.S.Kalmegh **Subject: BS (108)**

Unit No.	Topic No.	Topic with detail course outlines	Text and References	No. of Periods Allotted
I	1 2 3 4	Banking system in India-Indigenous Bankers, Commercial Banks, Co-operative Banks, Regional Rural Banks-Private Sector Banks, Foreign Banks, Merchant Banking, Banking Sector Reforms, Primary, Secondary and Subsidiary Functions of Banks, Banking Innovation, Globalization of Indian Banking Sector, Banking in New Millennium.	Gordon-Natrajan, Banking Theory, Law and Practice, Himalaya Publishing House	1 1 2 2 1
		Total		**07**
II	**1.** **2.** **3.**	Banking Regulation-Banking business, Capital requirement, management, licensing, new branches, loans and advances, NPA'S, Acquisition of Business, Winding up andAmalgamation, major issues of banking, Bank Management.	Vasant Desai, Bank Management, Himalaya Publishing House.	3 2 2
		Total		**07**
III	**1.** **2.** **3.** **4.**	Central Banking: Concept and Meaning, Major CentralBanks, Reserve Bank of India, it's role and functions, Banking Regulation by RBI,RBI & Agricultural Credit, Industrial Finance and Bill Market System.	S. Gurusamy, "Banking Theory: Law and Practices," Tata McGraw Hill 2nd Ed., 2009.	2 1 1 2
		Total		**07**
IV	**1.** **2.** **3.** **4.**	Commercial Banking: Concept and Scope, Commercial Banking Risk Management Functions and Services of Commercial Banks, Credit Management,Installation and Significance of Sound Credit Culture	Gordon-Natrajan, Banking Theory, Law and Practice, Himalaya Publishing House	2 2 1 3
		Total		**08**
V	**1.** **2.** **3.** **4.**	Upcoming Issues in Banking, Customer Services, CRM, Human Resource Management, Financial Management, Marketing Management of banking services, New Trend in Banking	Vasant Desai, Bank Management, Himalaya Publishing House.	3 1 1 2
		Total		**06**

HEAD
Department of Management Studies
P.R.M.I.T. & R, Badnera

Department of Management Studies

Semester –III (Session 2021-2022)

Subject: MBA/301 BUSINESS LAW

SUBJECT TEACHER: Prof. P. A. Kalmegh

Unit No.	Topic No.	Topic with detail course outlines	Text and References	No. of Periods Allotted	Remark
I	1	The Indian Contracts Act 1872; Essentials of a valid contract	Business Law- S S Gulshan Business Law- S. N. Maheshwari Mercantile Law- N. D. Kapoor ICAI Notes	1	Total Lectures for Unit I: 8
	2	Void agreements - cases		2	
	3	Performance of contract		2	
	4	Breach of contract and its remedies		1	
	5	Quasi contracts – condition with cases		1	
	6	Case Study		1	
II	1	The sale of Goods Act 1930 introduction	Business Law- S S Gulshan Business Law- S. N. Maheshwari Mercantile Law- N. D. Kapoor	1	Total Lectures for Unit II: 7
	2	Essential features-sale & agreement		1	
	3	Types of goods-condition& warranty-cases		1	
	4	Passing of property & Formation of Contract		2	
	5	Rights of an unpaid seller		1	
	6	Case Study		1	
III	1	The Negotiable Instruments Act 1881: Nature of negotiable instruments,	Business Law- S S Gulshan Business Law- S. N. Maheshwari Mercantile Law- N. D. Kapoor ICAI Notes	2	Total Lectures for Unit III: 7
	2	Type of negotiable instruments		1	
	3	Negotiation and assignment, Holder in due course		1	
	4	Dishonor and discharge of negotiable instrument		2	
	5	Case Study		1	
IV	1	The Companies Act 1956: Nature And Type Of Companies	Business Law- S S Gulshan Business Law- S. N. Maheshwari Mercantile Law- N. D. Kapoor	2	Total Lectures for Unit IV: 7
	2	Formation of companies		1	
	3	Memorandum and Article of Association		1	
	4	Winding up of companies-Cases		2	
	5	Case Study		1	
V	1	An overview of Consumer Protection Act 1986	Business Law- S S Gulshan Business Law- S. N. Maheshwari Mercantile Law- N. D. Kapoor	2	Total Lectures for Unit V: 7
	2	IT Act 2000		1	
	3	Cyber laws with specific reference to e-commerce		1	
	4	Intellectual Property Law		1	
	5	Patents and copyright.		1	
	6	Case Study		1	
			Total Lectures Required: 36		

HEAD
Department of Management Studies
P.R.M.I.T. & R. Badnera

Prof. Ram Meghe Institute of Technology & Research, Badnera
Department of Management Studies

Lesson Plan

Subject: International Financial Management

Semester –IIIrd (Session 2021-2022)
Subject Teacher: Prof. G.D. Pachaghare

Unit No.	Topic No.	Topic with detail course outlines	Text and References	No. of Periods Allotted	Remark
I	1	Multinational Financial Management - An overview	Bhalla, V.K., International Financial Management, 2nd ed., New Delhi, Anmol 2001.	2	Total Lectures for Unit I: 5
	2	Evolution of the International Monetary and Financial System.		2	
	3	Case study		1	
II	1	Managing short-term assets and liabilities	Bhalla, V.K., International Financial Management, 2nd ed., New Delhi, Anmol 2001.	2	Total Lectures for Unit II: 8
	2	Long-term Financing		1	
	3	Long-run Investment Decisions		2	
	4	The foreign Investment Decision.		2	
	5	Case Study		1	
III	1	Cost of Debt, Cost of Capital,	Bhalla, V.K., International Financial Management, 2nd ed., New Delhi, Anmol 2001.	3	Total Lectures for Unit III: 7
	2	Weighted Average Cost of Capital		1	
	3	Capital Structure of the Multinational Firm.		2	
	4	Case Study		1	
IV	1	Multinational Capital Budgeting Application and Interpretation	Bhalla, V.K., International Financial Management, 2nd ed., New Delhi, Anmol 2001.	2	Total Lectures for Unit IV: 8
	2	Dividend Policy of the Multinational Firm		2	
	3	Taxation of the Multinational Firm		2	
	4	Case Study		2	
V	1	Analysis of Country Level Risk	Bhalla, V.K., International Financial Management, 2nd ed., New Delhi, Anmol 2001.	2	Total Lectures for Unit V: 8
	2	Political Risk Management		2	
	3	Foreign Exchange Operating Exposure		1	
	4	Debt and Foreign Exchange Exposure		2	
	5	Case Study		1	
			Total Lectures Required	**36**	

HEAD
Department of Management Studies
P.R.M.I.T. & R, Badnera

Department of Management Studies

Semester –III (Session 2021-2022)

Teaching Plan

Subject: Indian Financial System

Subject Teacher: Prof. R.A.Kapdiya

Unit No.	Topic No.	Topic with detail course outlines	Text and References	No. of Periods Allotted	Remark if Any
I	1	Structure of Indian financial system	Vasant Desai.:- Fundamentals Indian financial system HPH	02	
	2	Functions of Indian financial system		01	
	3	Economic development and major issues in IFS		01	
	4	Saving Investment and capital accumulation		01	
	5	Case study		01	
Total Lecture				**06**	
II	1	Working of financial Markets	Bharti V Pathak:- Indian financial system Markets, Institutions and Services Pearson Education M Vora :- Indian financial system Anmol Publications	01	
	2	Trends of Money Market		01	
	3	Capital Market		02	
	4	Debt Market		01	
	5	Bill Market		01	
	6	Foreign Exchange Market		01	
	7	Case study		01	
Total Lecture				**08**	
III	01	Role and significance of stock exchanges	Bharti V Pathak:- Indian financial	01	

	02	NSE	system Markets, Institutions and Services Pearson Education M Vora :- Indian financial system Anmol Publications.	02	
	03	BSE		02	
	04	Discount and finance house of India and OTC		01	
	05	SEBI		01	
	06	Case study		01	
Total Lecture				**08**	
IV	01	Working and function of RBI	Bharti V Pathak:- Indian financial system Markets, Institutions and Services Pearson Education M Y Khan:- Indian financial system Tata McGraw Hill.	01	
	02	Commercial banking		01	
	03	Non –banking financial institutions and companies		01	
	04	Development bank		01	
	05	Life insurance		02	
	06	General insurance		01	
	07	Case Study		01	
Total Lecture				**08**	
V	01	Features and importance of treasury bills	Bharti V Pathak:- Indian financial system Markets, Institutions and Services Pearson Education Vasant Desai.:- Fundamentals Indian financial system HPH	01	
	02	Certificates of deposits		01	
	03	Commercial paper		01	
	04	Hawala		01	
	05	Case study		01	
Total Lecture				**05**	

HEAD
Department of Management Studies
P.R.M.I.T. & R. Badnera

Department of Management Studies

Semester –III (Session 2021-2022)

Teaching Plan

Subject: Investment Science

Subject Teacher: Prof. K. S. Bijawe

Unit No.	Topic No.	Topic with detail course outlines	Text and References	No. of Periods Allotted	Remark if Any
I	01	Investment - Introduction , Significance	Preeti Singh, Investment Management, Himalaya Publishing House.	01	
	02	Saving , Investment , Gambling		01	
	03	Meaning , Objectives, and significance & Mechanism of Investment		01	
	04	Issue and dilemmas of investment		01	
	05	Investment option and opportunities		01	
	06	Investment risk and return		01	
	07	Indian Investment Scenario		01	
	08	Case Study and Situation		01	
Total Lecture				08	
II	01	Financial Market	Preeti Singh, Investment Management, Himalaya Publishing House.	01	
	02	Financial Market and Intermediaries		01	
	03	Money Market		01	
	04	Stock Market Function		01	
	05	Stock Market Indices		01	
	06	Stock Market and Economic Scenario		01	
	07	Case Study , Situation		01	
Total Lecture				07	
III	01	Theory of Interest	Preeti Singh, Investment Management,	01	
	02	Time Value Consideration		01	

	03	Evaluation of Investment of opportunities	Himalaya Publishing House.	01	
	04	NPV		01	
	05	IRR		01	
	06	NPV Vs IRR		01	
Total Lecture				06	
IV	01	Investment Valuation	Preeti Singh, Investment Management, Himalaya Publishing House.	01	
	02	Valuation of Debt securities		01	
	03	Bond Valuation		01	
	04	YTM		02	
	05	Valuation of Debenture		01	
	06	Tax Consideration in Investment		01	
Total Lecture				07	
V	01	Valuation of Share Investment	David G. Luenberger, Investment Science, Oxford University Press.	01	
	02	Valuation of Preference Share		01	
	03	Valuation of Equity Share		02	
	04	Dividend Valuation Model		02	
	05	Case Study		01	
Total Lecture				07	

HEAD
Department of Management Studies
P.R.M.I.T. & R. Badnera

Department of Management Studies

Semester –III (Session 2021-2022)

Teaching Plan

Subject: Risk Management

Subject Teacher: Prof. A.E.Kharad

Unit No.	Topic No.	Topic with detail course outlines	Text and References	No. of Periods Allotted	Remark if Any
I	01	Risk - Meaning, Definition and Significance	Anthony Sounders, Merica Cornett, "Financial Institutions Management:- A Risk Management Approach"' Tata McGraw Hill.	01	
	02	Risk Management		01	
	03	Impact of Risk on Organization		01	
	04	Types of Risk		01	
	05	Development of Risk Management		01	
	06	Risk Management , Principal , objectives and standards and policy		01	
	07	Risk Management Documentation and responsibility		01	
	08	Case study		01	
Total Lecture				**08**	
II	01	Risk Assessment	Anthony Sounders, Merica Cornett, "Financial Institutions Management:- A Risk Management Approach"' Tata McGraw Hill.	01	
	02	Risk architecture and structure		01	
	03	Risk-aware culture , risk training and communication		01	
	04	Risk assessment consideration		01	
	05	Risk classification system		01	
	06	Risk likelihood and impact, upside of risk		01	
	07	Case study		01	
Total Lecture				**07**	
III	01	Risk and organization		01	
	02	Corporate Governance Model	Anthony	01	

	03	Stakeholder expectations, analysis of the business model	Sounders, Merica Cornett, "Financial Institutions Management:- A Risk Management Approach"' Tata McGraw Hill.	01	
	04	Project and operational risk Management		01	
	05	Supply Chain Management		01	
	06	Case study		01	
Total Lecture				**06**	
IV	01	Risk response, enterprise risk management	Anthony Sounders, Merica Cornett, "Financial Institutions Management:- A Risk Management Approach"' Tata McGraw Hill.	01	
	02	Importance of risk appetitive		01	
	03	Tolerate, Treat, Transfer and Terminate		01	
	04	Risk control Techniques		01	
	05	Control of selected hazard risks,		01	
	06	Insurance and risk transfer		01	
	07	Case Study , situation		01	
Total Lecture				**07**	
V	01	Risk assurance and reporting	Anthony Sounders, Merica Cornett, "Financial Institutions Management:- A Risk Management Approach"' Tata McGraw Hill.	01	
	02	Evaluation of the control environment		01	
	03	Activities of the internal audit function		01	
	04	Risk assurance techniques		01	
	05	Reporting of risk management		01	
	06	Corporate social responsibility and Future of Risk Management		01	
	07	Case study		01	
Total Lecture				**07**	

HEAD
Department of Management Studies
P.R.M.I.T. & R. Badnera

Prof. Ram Meghe Institute of Technology & Research, Badnera
Department of Management Studies

Lesson Plan

Subject: Working Capital Management

Semester –IIIrd (Session 2021-2022)
Subject Teacher: Prof. R.A.Kapdiya

Unit No.	Topic No.	Topic with detail course outlines	Text and References	No. of Periods Allotted	Remark
I	1	Concept of Working Capital Management	Bhalla, V.K., Working Capital Management: Text and Cases, 4th ed., Delhi, Anmol, 2001.	1	Total Lectures for Unit I: 8
	2	Importance of Working Capital, Kinds of Working Capital		1	
	3	Factors Determining Working Capital, Estimating Working Capital Requirements		3	
	4	Operating Cycle		1	
	5	Case study		2	
II	1	Management of Cash-Motives for Holding Cash and marketable securities	Bhalla, V.K., Working Capital Management: Text and Cases, 4th ed., Delhi, Anmol, 2001.	2	Total Lectures for Unit II: 6
	2	Cash System		1	
	3	Managing the Cash Flows		2	
	4	Case Study		1	
III	1	Managing Corporate Liquidity and Financial Flexibility	Bhalla, V.K., Working Capital Management: Text and Cases, 4th ed., Delhi, Anmol, 2001.	2	Total Lectures for Unit III: 7
	2	Measures of Liquidity		1	
	3	Determining the Optimum Level of Cash Balances - Baumol Model		2	
	4	Benanek Model		1	
	5	Case Study		1	
IV	1	Inventory Management-Kinds of Inventories	Bhalla, V.K., Working Capital Management: Text and Cases, 4th ed., Delhi, Anmol, 2001.	1	Total Lectures for Unit IV: 8
	2	Benefits and Cost of holding Inventories		2	
	3	Inventory Management and Valuation		2	
	4	Inventory Control Models		2	
	5	Case Study		1	
V	1	Receivables Management, Objectives	Bhalla, V.K., International Financial Management, 2nd ed., New Delhi, Anmol 2001.	2	Total Lectures for Unit V: 7
	2	Credit Policies		2	
	3	Credit Terms and Collection Policies		2	
	4	Case Study		1	
			Total Lectures Required	**36**	

HEAD
Department of Management Studies
P.R.M.I.T. & R, Badnera

Department of Management Studies				
Semester –III (Session 2021-2022)				
Lesson Plan				
Subject: Compensation Management Teacher: Yuvaraj Vaidya				
Unit No.	**Topic No.**	**Topic with detail course outlines**	**Text and References**	**No. of Periods Allotted**
I	1	Compensation Management: Concept	Compensation Management by Dr Kanchan Bhatia	2
	2	Components	Compensation by G. Milkovich, J. Newman & C Ratnam	1
	3	Theories	Compensation Management by Dr Kanchan Bhatia	1
	4	Reward Management	Compensation Management by Dr Kanchan Bhatia	2
	5	Case Study	University Question Papers	1
II	6	Diagnosis of compensation problem	Compensation Management by Dr Kanchan Bhatia	2
	7	Meaning and necessity of Benchmarking	Compensation Management by Dr Kanchan Bhatia	2
	8	commitments	Salary and wages Administration	1
	9	Internal & external equity in compensation system	Compensation by G. Milkovich, J. Newman & C Ratnam	2
	10	Case study	University Question Papers	1
III	11	Compensation Packages	Compensation by G. Milkovich, J. Newman & C Ratnam	2
	12	Tools in Designing Compensation Packages	Compensation by G. Milkovich, J. Newman & C Ratnam	1
	13	Implementing Compensation Packages	http://www.busgurus.ca/media/pdf/ Compensation-Plans-en.pdf	1
	14	Improving Compensation Packages	http://businessfinancemag.com/hr/6-ways-improve-compensation-management	
	15	Designing	Compensation by G. Milkovich, J. Newman	2

		Compensations Packages	& C Ratnam	
	16	Case Study	University Question Papers	1
IV	17	Components of compensation	Compensation by G. Milkovich, J. Newman & C Ratnam	2
	18	Fringe Benefits	Compensation by G. Milkovich, J. Newman & C Ratnam	2
	19	Incentives	Compensation by G. Milkovich, J. Newman & C Ratnam	1
	20	Retirement Benefits	Compensation Management by Dr Kanchan Bhatia	1
	21	Case Study	University Question Papers	1
V	22	Strategic Compensation System	Compensation by G. Milkovich, J. Newman & C Ratnam	2
	23	compensation practices of public limited	Compensation by G. Milkovich, J. Newman & C Ratnam	1
	24	compensation practices of institutional	Salary and wages Administration	1
	25	corporate & public sector companies.	Compensation by G. Milkovich, J. Newman & C Ratnam	2
	26	Case Study	University Question Papers	1

HEAD
Department of Management Studies
P.R.M.I.T. & R, Badnera

Department of Management Studies - Semester –III (Session 2021-2022) - Teaching Plan

Subject: HR-3304/ Human Resource Development

Subject Teacher: Prof. Minal M.Nistane.

Unit No.	Topic No.	Topic with detail course outlines	Text and References	No. of Periods Allotted	Remark if Any
I	1. 2. 3. 4. 5. 6.	HRD- Concept & Goals Challenges (A Case of video Challenges) Climate (Videocon) Practices in India (Practical Ex.of Patanajali) Learning and HRD Case Study	1. HRD - BY Rao T.V. 2. HRD –Dr.Lalitha Balakrishnan,S Srividhya 3. HRD – By P. Subba Rao	01 01 01 01 01 02	
		Total		**07**	
II	1. 2. 3. 4. 5. 6. 7. 8.	HRD System Design Assessing HRD Needs Designing & Implementing HRD Programs Case Let Evaluating HRD Program (Ex. Wipro co.) Case Let Staffing & HRD Function Case Let	1. HRD - BY Rao T.V. 2. HRD –Dr.Lalitha Balakrishnan,S Srividhya 3. HRD – By P. Subba Rao	01 01 01 01 01 01 01 01	
		Total		**08**	
IV	1. 2. 3. 4. 5. 6. 7.	Career Management Development Concept, Objectives Relevance & Process Case Let Career & Succession Planning (Ex.**Google**) Case Let Post Retirement Planning	1. HRD - BY Rao T.V. 2. HRD – By Werner Desimone 3. HRD – By P. Subba Rao	01 01 01 01 01 01 01	
		Total		**07**	
III	1. 2. 3. 4. 5.	HRD Strategies for Employee (Introduction) Case Let Employee Socialization & Orientation Case Let HRD Intervention	1. HRD – By Werner Desimone 2. HRD – By P. Subba Rao	02 01 01 01 01	
		Total		**06**	
V	1. 2. 3. 4. 5. 6. 7.	Counseling Coaching Mentoring & Performance Mgt. HRD & Organizational Change HRD & Diversity in Work Force HRD Audit & Accounting Case Study - 2	1. HRD - BY Rao T.V. 2. HRD –Dr.Lalitha Balakrishnan,S Srividhya 3. HRD – By P. Subba Rao	01 01 01 01 01 01 **02**	
		Total		**08**	
		Total Lectures		**36**	

HEAD
Department of Management Studies
P.R.M.I.T. & R. Badnera

Department of Management Studies				
Semester – III (Session 2021-2022)				
Lesson Plan				
Subject – Human Relations & Legal Framework Teacher: Y R Vaidya				
Unit No.	**Topic No**	**Topic**	**Text and References**	**No. of Periods Allotted**
I	1	Labour Laws Introduction	http://www.lawyersclubindia.com/articles/Brief-Overview-of-Labour-Laws-in-India-6040.asp#.Vad9S19Viko	2
	2	Objectives & Importance of Labour Laws	http://www.yourarticlelibrary.com/law/necessity-and-importance-of-labour-law-and-principles/34381/	2
	3	Socio Economic Environment of Labor Laws	http://dyuthi.cusat.ac.in/xmlui/bitstream/handle/purl/2788/Dyuthi-T0809.pdf?sequence=1	1
	4	(Case Study)	University Question Papers	1
II	5	Laws Relating to Industrial Disputes	Legal Aspectes of Business, R S Pillai & Bhagvathi	1
	6	Trade Union	Legal Aspectes of Business, R S Pillai & Bhagvathi	2
	7	Standing Orders	Legal Aspectes of Business, R S Pillai & Bhagvathi	2
	8	Law Relating to Discharge	http://www.lawteacher.net/free-law-essays/employment-law/misconduct-as-a-ground-for-ermination-of-employment-law-essay.php	1
	9	Misconduct	http://www.lawteacher.net/free-law-essays/employment-law/misconduct-as-a-ground-for-ermination-of-employment-law-essay.php	1
	10	Domestic Enquiry – Disciplinary Action	http://www.lawyersclubindia.com/articles/Disciplinary-Actions-4743.asp#.Vad_bF9Viko	2
	11	(Case Study)	University Question Papers	1
III	12	Laws Relating to	Legal Aspectes of Business, R S Pillai & Bhagvathi	2

		Workmen Compensation		
	13	Employee State Insurance Act	Legal Aspectes of Business, R S Pillai & Bhagvathi	1
	14	Provident Fund	http://www.legalissuesforngos.org/main/other/EPF.pdf	1
	15	The Payment of Gratuity Act	Legal Aspectes of Business, R S Pillai & Bhagvathi	1
	16	Maternity Benefits Act	Legal Aspectes of Business, R S Pillai & Bhagvathi	1
	17	(Case Study)	University Question Papers	1
IV	18	The Law of Minimum Wages	Legal Aspectes of Business, R S Pillai & Bhagvathi	2
	19	Payment of Wages	Legal Aspectes of Business, R S Pillai & Bhagvathi	2
	20	Paymentof Bonus.	Legal Aspectes of Business, R S Pillai & Bhagvathi	1
	21	(Case study)	University Question Papers	1
V	22	The Laws Relating to Factories	Legal Aspectes of Business, R S Pillai & Bhagvathi	5
	23	Contract Labor Act. 1970	http://ncw.nic.in/frmReportLaws33.aspx	1
	24	(Case Study)	University Question Papers	1

HEAD
Department of Management Studies
P.R.M.I.T. & R. Badnera

Department of Management Studies - Semester –III (Session 2021-2022)

Teaching Plan

Subject: HR-3301/ Management of Industrial Relations

Subject Teacher: Prof. Minal M.Nistane.

Unit No.	Topic No.	Topic with detail course outlines	Text and References	No. of Periods Allotted	Remark if Any
I	1. 2. 3. 4. 5. 6. 7.	IR Introduction (Durga Steel Plant) Industrial Relations Perspectives Importance of IR Socio Economic Conditions IR & Socio Economic Scenario –I IR & Socio Economic Scenario –II IR & State, Case Study	1. Industrial Relation- By C.S.Venkata Ratnam 2. Ind Relation,Trade Unions & Labour Legislation - By P.R.N. Sinha,Indu bala Sinha, Seema P.Shekhar	01 01 01 01 01 01 01	
		Total		**07**	
II	1. 2. 3. 4. 5. 6. 7. 8.	Role of Trade Union Future of Trade Unions Employee Perspectives Trade Union & Employees (Maruti Suzuki) Trade Union & Management Role Of Management Trade Union in MNC's. Case Let (Video on strike)	1. Industrial Relation- By C.S.Venkata Ratnam 2. Ind Relation,Trade Unions & Labour Legislation - By P.R.N. Sinha,Indu bala Sinha, Seema P.Shekhar	01 01 01 01 01 01 01 01	
		Total		**08**	
III	1. 2. 3. 4. 5. 6. 7.	Grievance Discipline Grievance Conflicts, Grievance Dispute Grievance Management, Negotiation Collective Settlements. Case Let	1. Industrial Relation- By C.S.Venkata Ratnam 2. Ind Relation,Trade Unions & Labour Legislation - By P.R.N. Sinha,Indu bala Sinha, Seema P.Shekhar	01 01 01 01 01 01	
		Total		**07**	
IV	1. 2. 3. 4. 5. 6.	Participative Management Techniques Scope And Importance Co-Ownership Productive Bargaining – I Productive Bargaining - II Case Study	1. Industrial Relation- By C.S.Venkata Ratnam 2. Ind Relation,Trade Unions & Labour Legislation - By P.R.N. Sinha,Indu bala Sinha, Seema P.Shekhar	01 02 01 01 01 01	
		Total		**07**	
V	1. 2. 3. 4. 5. 6. 7.	IR , Employees Empowerment - I Employee Empowerment - II Quality Circles, IR & Technological Change, Conciliation arbitrations adjudication Role of labour administration. Case Study	1. Industrial Relation- By C.S.Venkata Ratnam 2. Ind Relation,Trade Unions & Labour Legislation - By P.R.N. Sinha,Indu bala Sinha, Seema P.Shekhar	01 01 01 01 01 01 **01**	
		Total		**07**	
		Total Lectures		**36**	

HEAD
Department of Management Studies
P.R.M.I.T. & R, Badnera

Department of Management Studies

Odd-Semester – III (Session 2021-22)-Teaching Plan

Subject Teacher**:** Prof.S. R. Deshmukh **Subject: MTD**

Unit No.	Topic No.	Topic with detail course outlines	Text and References	No. of Periods Allotted	Remark if Any
I	1 2 3 4 5 6 7	Training – a change agent, Video Training Environment Pre – T raining module-Formats Counseling for Training, Training Costs Training Investment Case Study	**"Training & Development Methods" by Dr. Rishipal & Scholary Articles**	2 1 1 1 1 1 1	
		Total		**08**	
II	1. 2. 3. 4.	Training Functions, Training Needs Assessment Action Research-Module Organizational Objectives and Training Case Study	**"Training & Development Methods" by Dr. Rishipal & Lynton and Pareek**	2 2 2 1	
		Total		**07**	
III	1. 2. 3. 4. 5	Introduction of Learning & Learning Process Organizational Training Climate Development and Designing Training Modules Formats of training Sheet, Case Study	**"Training & Development Methods" by Dr. Rishipal**	2 2 2 1	
		Total		**07**	
IV	1. 2. 3. 4. 5	Training Methods Techniques & Pedagogy Training aids & Tools Facilities for Training Case Let's	"Training & Development Methods" by Dr. Rishipal & Scholary Articles	2 2 1 1 1	
		Total		**07**	
V	1. 2. 3. 4.	Training Feedback Evaluation Training Audit Training as Continuous Process Case Study	"Training & Development Methods" by Dr. Rishipal & Journals	2 2 2 1	
		Total		**07**	**36**

HEAD
Department of Management Studies
P.R.M.I.T. & R, Badnera

Department of Management Studies

Semester –III (Session 2021-2022)

Subject: MBA/3306/H Performance Management

SUBJECT TEACHER: Prof. P. A. Kalmegh

Unit No.	Topic No.	Topic with detail course outlines	Text and References	No. of Periods Allotted	Remark
I	1	Overview of HRM Capital and performance appraisal,	Performance Management- A.S. Kohli, T. Deb Human Resource Management – P Subba Rao	2	Total Lectures for Unit I: 7
	2	Evolution of concept of performance management		1	
	3	Concept and perspectives of performance management		2	
	4	Meaning, Nature and scope of Performance Management.		1	
	5	Case Study		1	
II	1	Principles and Models of Performance Management,	Performance Management- A.S. Kohli, T. Deb Performance Management-A M Sharma	2	Total Lectures for Unit II: 7
	2	Imperatives, Antecedents, determinants and elements of performance management		2	
	3	Challenges to performance management		1	
	4	Case Study		2	
III	1	Performance Management System: Concept, Nature, Objectives, Functions	Performance Management- A.S. Kohli, T. Deb Performance Management-A M Sharma	2	Total Lectures for Unit III: 7
	2	Effective performance management system		2	
	3	Competency based performance management System and recent developments		1	
	4	Performance Counseling-Concept, Principles and Skills.		1	
	5	Case Study		1	
IV	1	Performance Management Process: Performance Planning-Definition, Objectives, characteristics and process.	Performance Management- A.S. Kohli, T. Deb Performance Management-A M Sharma	1	Total Lectures for Unit IV: 8
	2	Performance Management Plan		1	
	3	Competency Mapping- Methods and Applications, Linkages to performance planning. Process of performance managing		2	
	4	Performance Appraisal-Meaning, Principles, Process, Effective Design		1	
	5	Performance Monitoring: Definition, Characteristics, Objectives, Process and Practices.		1	
	6	Mentoring-Concepts and Applications & Performance Management Audit.		1	
	7	Case Study		1	
V	1	Performance Management Implementation: Bottlenecks, Strategies, Operationalization.	Performance Management- A.S. Kohli, T. Deb Performance Management-A M Sharma	1	Total Lectures for Unit V: 7
	2	Performance Management Link Reward System- Objectives, components, job performance with job satisfaction		2	
	3	High performance teams. HR, Ethics and Performance Management		1	
	4	Role of HR in Performance Management		1	
	5	Ethics and Performance Management.		1	
	6	Case Study		1	
				Total Lectures Required: 36	

HEAD
Department of Management Studies
P.R.M.I.T. & R., Badnera

PRMIT&R

Department of Management Studies(MBA)

Session Plan 2021-2022

Advertising Management

Subject Teacher: Prof. Rajkumar K Dhanuka

Unit No	Topic	Reference Book	Estimated Lectures
Unit No - I	Nature, Type & Functions	Advertising Management By: - Jayashri Jethwaney & Shruti Jain (Oxford university Presss)	1
	Scope and Role of Advertising in Market Place	Advertising Management By: - Jayashri Jethwaney & Shruti Jain (Oxford university Presss)	1
	Economic Aspects of Advertising	Advertising Management By: - Jayashri Jethwaney & Shruti Jain (Oxford university Presss)	1
	Ethical and Social Aspects of Advertising	Advertising Management By: - Jayashri Jethwaney & Shruti Jain (Oxford university Presss)	2
	Case Lets & Case Study	University Question Papers	2
Unit No - II	Marketing Communication	Advertising fourth edition By: -Frank Jefkins (Pearson Publication)	1
	Process of Communication & its flow	Advertising fourth edition By: -Frank Jefkins (Pearson Publication)	1
	Types of Communication Systems	Advertising fourth edition By: -Frank Jefkins (Pearson Publication)	1
	Models Advertising Effect Models	Advertising fourth edition By: -Frank Jefkins (Pearson Publication)	2
	Case Lets & Case Study	University Question Papers	2
Unit No - III	Advertising Planning & Objectives	Advertising fourth edition By: -Frank Jefkins (Pearson Publication)	1
	DAGMAR Approach	S A Chunawalla & K C Sethia , *Advertising Theory and Practice,* 7th ed., 2002, Himalaya Publishing House	1
	Building of Advertising Program –	Advertising fourth edition	2

	Message, Headlines, Copy, Logo, Illustration, Appeals, Layout	By: -Frank Jefkins (Pearson Publication)	
	Case Lets & Case Study	University Question Papers	2
Unit No - IV	Media Planning & Strategies	S A Chunawalla & K C Sethia , *Advertising Theory and Practice,* 7th ed., 2002, Himalaya Publishing House	1
	Media Buying – Broadcast & Print	S A Chunawalla & K C Sethia , *Advertising Theory and Practice,* 7th ed., 2002, Himalaya Publishing House	2
	Advertising Budget -Allocation	S A Chunawalla & K C Sethia , *Advertising Theory and Practice,* 7th ed., 2002, Himalaya Publishing House	1
	Advertising Budget – Approaches	S A Chunawalla & K C Sethia , *Advertising Theory and Practice,* 7th ed., 2002, Himalaya Publishing House	1
	Advertising Budget –Influencing Factors	S A Chunawalla & K C Sethia , *Advertising Theory and Practice,* 7th ed., 2002, Himalaya Publishing House	1
	Case Lets & Case Study	University Question Papers	2
Unit No - V	Advertising Campaign Planning	S A Chunawalla & K C Sethia , *Advertising Theory and Practice,* 7th ed., 2002, Himalaya Publishing House	1
	Advertising Organization – Selection	Advertising Management By: - Jayashri Jethwaney & Shruti Jain (Oxford university Presss)	1
	Compensation & Appraisal of Advertising Agencies	Advertising fourth edition By: -Frank Jefkins (Pearson Publication)	2
	Web Advertising	Advertising fourth edition By: -Frank Jefkins (Pearson Publication)	1
	Case Lets & Case Study	University Question Papers	2
Total Lectures required to Cover Syllabus			35

HEAD
Department of Management Studies
P.R.M.I.T. & R. Badnera

Department of Management Studies
Semester –III (Session 2021-2022)
Teaching Plan

Subject: Agro Business Management **Subject Teacher: Prof. G. D. Pachaghare**

Unit No.	Topic No.	Topic with detail course outlines	Text and References	No. of Periods Allotted	Remark if Any
I	a) b) c) d) e) **TOTAL LECTURES**	Agricultural, Allied Products. Agro Processed Products. Agro Processed Products status in Indian Market. Emerging Issues in the business Agriculture Produces. CASE STUDY	*Agricultural Marketing in India – S.S. Acharya and N L Agarwal – Oxford & IBH Publishing Co. Pvt. Ltd. Calcutta. *Agribusiness Management in India – Text & Cases – Dr. Subhash Bhave	01 01 02 02 01 **07**	
II	a) b) c) d) e) **TOTAL LECTURES**	Agriculture Marketing: Concept. Definition & Scope. Objectives. Upcoming Practices in Agriculture Marketing. CASE STUDY	*Agricultural Marketing in India – S.S. Acharya and N L Agarwal – Oxford & IBH Publishing Co. Pvt. Ltd. Calcutta. *Agribusiness Management in India – Text & Cases – Dr. Subhash Bhave	02 01 01 02 01 **07**	

III	a) b) c) d) e) **TOTAL LECTURES**	Agribusiness-Emerging Branches. Non Conventional Forms of Agribusiness. Retailing & Merchandising of Agri Produces. Export Potential for farm products-Supporting Services. CASE STUDY	*Agricultural Marketing in India – S.S. Acharya and N L Agarwal – Oxford & IBH Publishing Co. Pvt. Ltd. Calcutta. *Agribusiness Management in India – Text & Cases – Dr. Subhash Bhave	02 02 01 02 01 **08**	
IV	a) b) c) d) e) **TOTAL LECTURES**	Role of Agencies for promotion of Exports of Agri Products. Role of Agencies for marketing of Agri Products. Standards of Agriculture Produces. Organized Retailing in Agri Inputs and Outputs. CASE STUDY	*Agricultural Marketing in India – S.S. Acharya and N L Agarwal – Oxford & IBH Publishing Co. Pvt. Ltd. Calcutta. *Agribusiness Management in India – Text & Cases – Dr. Subhash Bhave	02 02 02 01 01 **08**	

V	a) b) c)	Marketing Mix of Agriculture Products. Role of Information and Communication Technology in Agriculture Marketing. CASE STUDY **TOTAL LECTURES**	*Agricultural Marketing in India – S.S. Acharya and N L Agarwal – Oxford & IBH Publishing Co. Pvt. Ltd. Calcutta. *Agribusiness Management in India – Text & Cases – Dr. Subhash Bhave	02 02 01 **05**	

Note: No of available session are 35 & include at least one case study in each unit

HEAD
Department of Management Studies
P.R.M.I.T. & R. Badnera

Department of Management Studies

Semester –III (Session 2021-2022)

Subject: Brand Management

SUBJECT TEACHER: Prof. S. B. Diwan

Unit No.	Topic No.	Topic with detail course outlines	Text and References	No. of Periods Allotted	Remark
1	1	Concept of Brand	Chunawala S.A., Brand Management; U.C. Mathur, Brand Management; Harsh Verma- Brand Management	2	Total Lectures for Unit I:9
	2	Brand Evolution		2	
	3	Brand Hierarchy		2	
	4	Brand Identity, Brand Image		2	
	5	Caselet on Brand Image		1	
2	1	Brand Peronsonality	Chunawala S.A., Brand Management; U.C. Mathur, Brand Management; Harsh Verma- Brand Management	1	Total Lectures for Unit II:8
	2	Brand Positioning & Repositioning		2	
	3	Brand Equity		2	
	4	Types of Branding- Product, Line, Range, Umbrella & Endorsement Branding		2	
	5	Caselet on Brand Portfolio		1	
3	1	Brand Creation	Chunawala S.A., Brand Management; U.C. Mathur, Brand Management; Harsh Verma- Brand Management	2	Total Lectures for Unit III:8
	2	Brand product Relationship		2	
	3	Brand Portfolio		1	
	4	Brand Elimination		1	
	5	Brand Revitalisation		1	
	6	Caselet on Brand Product Relationship		1	
4	1	Managing Brands	Chunawala S.A., Brand Management; U.C. Mathur, Brand Management; Harsh Verma- Brand Management	2	Total Lectures for Unit IV:6
	2	Brand Extensions		2	
	3	Financial Aspects of Brands		1	
	4	Caselet on Brand extension		1	
5	1	Branding in Retailers	Chunawala S.A., Brand Management; U.C. Mathur, Brand Management; Harsh Verma- Brand Management	1	Total Lectures for Unit V:5
	2	Branding in Services		1	
	3	Branding in High-tech Products		1	
	4	Caselet on Branding strategies in Clothing		2	

HEAD
Department of Management Studies
P.R.M.I.T. & R, Badnera

Department of Management Studies

Semester –III (Session 2021-2022)

Subject: Consumer Behaviour (MBA/3203/M)

SUBJECT TEACHER: Prof. A. V. Deshmukh

Unit No.	Topic No.	Topic with detail course outlines	Text and References	No. of Periods Allotted	Remark if Any
I	1	Introduction to consumer behaviour	1. Consumer Behaviour Engel, Blackwell, Thompson Publications 2. Consumer Behaviour Schiffman & Kanuk, Pearson Education	1	Total No. of Hours= 07
	2	Acivities/ elements of consumer behaviour		1	
	3	Evolution of consumer behaviour		1	
	4	Marketing strategy & consumer behaviour		1	
	5	Marketing strategy & consumer behaviour		1	
	6	Concept of consumer involvement & decision making		1	
	7	Case Study		1	
II	1	Concept of consumer decision making process	1. Consumer Behaviour Batra 2. Consumer Behaviour- Text & Cases, Nair, Suja, Himalaya Publishing	1	Total No. of Hours= 08
	2	Information search & it's evaluation		1	
	3	Decision rules, purchase & post purchase evaluation		1	
	4	Concept of consumer motivation		1	
	5	Theories of motivation		1	
	6	Concept of consumer perception		1	
	7	Theories of consumer perception		1	
	8	Case Study		1	
III	1	Consumer attitude formation & change	1. Consumer Behaviour- Text & Cases, Nair, Suja, Himalaya Publishing 2. Consumer Behaviour Schiffman & Kanuk, Pearson Education	1	Total No. of Hours= 07
	2	Models of attitude formation		1	
	3	Personality- Meaning, characteristics & factors		1	
	4	Theories of personality		1	
	5	Psychographics- it's impact on buying behavior		1	
	6	Lifestyle- it's influence on buying behavior		1	
	7	Case Study		1	

IV	1 2 3 4 5 6	Diffusion of Innovation- factors & process Opinion Leadership- Characteristics, promotional strategy Role of family in consumer decision making Family life cycle stage, strategies adopted by spouses Reference groups- types & it's influence Case Study	1 Consumer Behaviour Schiffman & Kanuk, Pearson Education 2. Consumer Behaviour- Text & Cases, Nair, Suja, Himalaya Publishing	1 1 1 1 1 1 1	Total No. of Hours= 06
V	1 2 3 4 5 6 7	Industrial buying- Meaning & participants Buying decisions & characteristics of industrial buying Stages in industrial buying process. Consumer behavior models- Howard Sheth Nicosia & EBM models of consumer behaviour Sheth model of industrial buying Consumer behavior studies in India	1. Consumer Behaviour- Text & Cases, Nair, Suja, Himalaya Publishing 2. Consumer Behaviour Engel, Blackwell, Thompson Publications	1 1 1 1 1 1 1	Total No. of Hours= 07

HEAD
Department of Management Studies
P.R.M.I.T. & R. Badnera

Department of Management Studies
Semester –III (Session 2021-2022)
Subject: International Marketing Strategy
SUBJECT TEACHER: Prof. S. B. Diwan

Unit No.	Topic No.	Topic with detail course outlines	Text and References	No. of Periods Allotted	Remark
I	1	Introduction to International Markets	International Marketing – Francis Cherunilam Rungman A.M. & Hodgettts R.M., International Business	1	Total Lectures for Unit I: 7
	2	Expansion of International Markets, Motives for International Marketing		1	
	3	International Marketing Decisions		1	
	4	Scope of Marketing ,Indian Products Abroad		1	
	5	Multinational Enterprises ,International Culture & International Trade		2	
	6	Caselet on scope Indian product abroad		1	
II	1	Global Strategy Planning	International Marketing – Francis Cherunilam Rungman A.M. & Hodgettts R.M., International Business	2	Total Lectures for Unit II: 8
	2	Political Risk & Negotiation Strategy		2	
	3	Market Selection		1	
	4	Market Entry Strategies		1	
	5	Market Coverage Strategies		1	
	6	Caselet on Market Entry & Coverage Strategy		1	
III	1	International Product Decisions- Product , Product Mix, Product Life Cycle	International Marketing – Francis Cherunilam Rungman A.M. & Hodgettts R.M., International Business	1	Total Lectures for Unit III: 7
	2	International Product Decisions- New Product Development, Business Environment & Strategies		1	
	3	International Pricing Decisions – Pricing Objectives, Factors affecting Pricing		1	
	4	International Pricing Decisions- Pricing Methods, Information required for Pricing		1	
	5	International Distribution Decisions- International Channel System, Types of Intermediaries		2	
	6	Case-study on Product & Pricing Decisions		1	
IV	1	International Marketing Intelligence- Information requirement, Market Research	International Marketing – Francis Cherunilam Rungman A.M. & Hodgettts R.M., International Business	1	Total Lectures for Unit IV: 7
	2	International Marketing Intelligence- Methods of Data Collection, Problems in International Research		1	
	3	International Promotion- Promotion Strategies, Major Decisions in International Communications		2	
	3	Export Procedures & Documents		2	
	4	Caselet on International Marketing Intelligence		1	
V	1	Quality Control & Pre-Shipment Inspection	International Marketing – Francis Cherunilam Rungman A.M. & Hodgettts R.M., International Business	1	Total Lectures for Unit V: 7
	2	Issues in International Business		1	
	3	Business Ethics, Social Responsibility Of Business		2	
	4	Environmental Issues ,		2	
	5	Labour Issues		1	
			Total Lectures Required	**36**	

HEAD
Department of Management Studies
P.R.M.I.T. & R. Badnera

Department of Management Studies

Semester –III (Session 2021-2022)

Subject: Sales and Distribution Management

SUBJECT TEACHER: Prof. S.R. Deshmukh

Unit No.	Topic No.	Topic with detail course outlines	Text and References	No. of Periods Allotted	Remark
I	1	Introduction to Sales Management & Sales Organization	"Sales Management" by Pradip Kumar Malik	1	Total Lectures for Unit I: 8
	2	Determining Sales Related Marketing Policies - I		1	
	3	Determining Sales Related Marketing Policies - II		1	
	4	Sales Functions and Policies		1	
	5	International Sales Management		1	
	6	Personal Selling- I		1	
	7	Personal Selling- II		1	
	8	Case Study		1	
II	1	Sales Planning	"Sales Management" by Pradip Kumar Malik and Chunawala S.A.	1	Total Lectures for Unit II: 6
	2	Sales Budgets - Estimating Market Potential		1	
	3	Forecasting Sales		1	
	4	Sales Quotes		1	
	5	Sales and Cost Analysis		1	
	6	Case Study		1	
III	1	Sales Force Management; Hiring and Training Sales Personnel	"Sales Management" by Pradip Kumar Malik and Chunawala S.A.	1	Total Lectures for Unit III: 8
	2	Time and Territory Management		1	
	3	Compensating Sales Personnel		1	
	4	Motivating Sales Force - I		1	
	5	Motivating Sales Force - II		1	
	6	Leading the Sales Force		1	
	7	Evaluating Sales Force Performance		1	
	8	Case Study		1	
IV	1	Marketing Logistics; Distribution as Marketing Mix Element	"Distribution Management" by Tapan K Panda	1	Total Lectures for Unit IV: 7
	2	Distribution Resource Planning		1	
	3	Marketing Channel Integration		1	
	4	Channel Management; Nature of Marketing Channels		1	
	5	Evaluating Channel Performance		1	
	6	Tele Marketing and Web Marketing		1	

	7	Case Study		1	
V	1	Managing Channel Conflicts	"Distribution Management" by Tapan K Panda	1	Total Lectures for Unit V: 6
	2	Channel Information Systems - I		1	
	3	Channel Information Systems - II		1	
	4	Wholesaling and Retailing		1	
	5	Ethical and Social Issues in SDM		1	
	6	Case Study		1	
			Total Lectures Required: 35		

HEAD
Department of Management Studies
P.R.M.I.T. & R. Badnera

Department of Management Studies

Odd-Semester – III (Session 2021-221)-Teaching Plan

Subject Teacher: Prof. R.A.Kapdiya

Subject: FD (4103)

Unit No.	Topic No.	Topic with detail course outlines	Text and References	No. of Periods Allotted	Remark if Any
I	1 2 3 4	Introduction to syllabus & Importance of subject Financial Derivatives- Introduction, Participants, its products, Feature. History of Derivative Market Myth about derivative market & its regulation in India	**"Financial Derivatives" by S.Chand**	1 2 1 2	
		Total		**06**	
II	1. 2. 3. 4.	Forward Contract-Concept, & meaning Mechanism of Forward contract Concept of pricing of forwards Hedging in forward Contracts	**"Financial Derivatives" by S.Chand**	1 2 2 2	
		Total		**07**	
III	1. 2. 3. 4.	Future Contract-Introduction, Concept Mechanism of Future Contract Types of Future-Pricing & Hedging Types o Future- Stock Index future	**"Futures & Options" by Gardener**	1 2 2 2	
		Total		**07**	
IV	1. 2. 3. 4.	Options-Concept & Meaning Types of options Pricing of Options Black & Scholes Binomial Model Trading strategies involving options	**"Futures & Options" by Gardener**	2 2 1 2	
		Total		**07**	
V	1. 2. 3. 4. 5.	Swaps-Concept & meaning Mechanism of Interest rate swaps Mechanism of currency swaps Valuation of interest rate swaps Valuation of currency swaps	**"Financial Derivatives" by S.Chand**	1 2 2 2 2	
		Total		**09**	**36**

HEAD
Department of Management Studies
P.R.M.I.T. & R, Badnera

Prof. Ram Meghe Institute of Technology & Research, Badnera

Department of Management Studies

Semester – IV (A.Y. 2021-2022)

Teaching Plan

Subject: Financial Decision Analysis (FDA) Prof. G.S.Kalmegh

Subject Code: - MBA/4101/CGF

Day	Topic No.	Topic	Text & Refernces	Unit
1	1.2	Introduction To Financial Decsion Analysis	Fundamentals of Investments, by William F, Alexander, Gordon, J. and Sharpe, Englewood Cliffs,New Jersey.,Prentice Hall Inc.,3rd ed., 2003	1
2		Ratio Analysis		1
3		Ratio Analysis -2		1
4	1.3	Fund Flow Analysis		1
5		Fund Flow Analysis -2		1
6		Fund Flow Analysis -3		1
7	1.4	Cash Flow Analysis		1
8		Cash Flow Analysis -2		1
9		Revision - Unit 01		2
10	2.1	Capital Expenditure	Financial Management by Prasanna Chandra,McGraw Hill Education, Ninth edition	2
11	2.2	Capital Expenditure - Risk Decisions		2
12		Capital Expenditure - Risk Decisions		2
13	2.3 & 2.4	Cvp Analysis		2
14		Cvp Analysis		2
15		Cvp Analysis		2
16		Revision Unit-2		2
17	3.2	Leasing Vs. Buying	Financial Management and Policy by Van Horne James & Dr. Sanjay Dhamija, Pearson Education India; 12 edition (2011)	3
18		Leasing Vs. Buying		3
19	3.3	Replacement Decisions		3
20		Replacement Decisions		3
21	3.5	Sequencing Decisions		3
22		Sequencing Decisions		3
23		Revision Unit - 3		3
24	4.1	Business Failure And Reorganisation	Practical Cost Accounting written by Khanna B.S. published	4
25	4.2	Merger / Acquisitions		4

26		**Merger / Acquisitions**	**by S.Chand & Co**	4
27		**Merger / Acquisitions**		4
28	**4.4**	**Capital Structure Decisions**		4
29		**Capital Structure Decisions**		4
30		Revision Unit-4		4
31	**5.1, 5.2**	**Dividend Decision Models**	**Khan and Jain, Financial Management, Tata Mcgrawhill, 5th ed**	5
32		**Dividend Decision Models**		5
33		**Dividend Decision Models**		5
34	**5.3 & 5.4**	**Present Value Models**		5
35		**Present Value Models**		5
36		Revision Unit - 5		5

HEAD
Department of Management Studies
P.R.M.I.T. & R. Badnera

Prof. Ram Meghe Institute of Technology & Research, Badnera
Department of Management Studies

Lesson Plan
Subject: Foreign Exchange Markets
Semester –IV (Session 2021-2022)
Subject Teacher: Prof. G.D. Pachaghare

Unit No.	Topic No.	Topic with detail course outlines	Text and References	No. of Periods Allotted	Remark
I	1	The rise and fall of Bretton Woods	Bhalla, V.K., International Financial Management, 2nd ed., New Delhi, Anmol, 2001. P.G.Apte, "International Financial Management", Tata McGraw Hill	2	Total Lectures for Unit I: 7
	2	Present International Financial Systems		1	
	3	International Monetary System		2	
	4	Working of IMF		1	
	5	Case study		1	
II	1	Foreign Exchange Markets: Organization, Structure and types	P.G.Apte, "International Financial Management", Tata McGraw Hill Bhalla, V.K., International Financial Management, 2nd ed., New Delhi, Anmol, 2001.	1	Total Lectures for Unit II: 8
	2	Exchange rate determination and equilibrium		2	
	3	Factors affecting exchange rate determination		2	
	4	Direct and Indirect Quotes		1	
	5	Spot and Forward Rate		1	
	6	Case Study		1	
III	1	Exposure management: Organization, function, parameter	Bhalla, V.K., International Financial Management, 2nd ed., New Delhi, Anmol, 2001.	2	Total Lectures for Unit III: 8
	2	Exposure management: constraints and techniques		1	
	3	Exposure Information System		1	
	4	Corporate Exposure Management		2	
	5	Case Study		2	
IV	1	Currency futures and options	Maheshwari, S. N., International Financial Management	1	Total Lectures for Unit IV: 6
	2	Interest rate swaps		2	
	3	Currency Swaps working and valuation		2	
	4	Case Study		1	
V	1	Euro-currency market	Bhalla, V. K., Managing International Investment and Finance, New Delhi, Anmol, 1997	1	Total Lectures for Unit V: 7
	2	Euro banking and Euro-currency centers		2	
	3	Eurobond and its valuation		1	
	4	International Bond market- Introduction and features		2	
	5	Case Study		1	
			Total Lectures Required	**36**	

HEAD
Department of Management Studies
P.R.M.I.T. & R. Badnera

Department of Management Studies(M.B.A.)
Semester – (Session 2021-2022)
Subject: Insurance Management
SUBJECT TEACHER: Prof. A.E.Kharad

Unit No.	Topic No.	Topic with detail course outlines	Text and References	No. of Periods Allotted	Remark if Any
I	1	Introduction to Insurance, Concept and Definition, Nature of Insurable Risk	Insurance &Risk Management : P.K.Gupta, Insurance Management :S.C.Sahu & S.C.Das, Principle and Practics Insurance: Dr.P.Periasamy	2	Total Lectures for Unit I: 7
	2	Importance and Classification of Insurance		2	
	3	Essentials and Principles of an Insurance Contract		2	
	4	Insurance Contract v/s. Wagering Contract		1	
II	1	Introduction to Life Insurance, Concept, Definition	Insurance &Risk Management : P.K.Gupta, Insurance Management :S.C.Sahu & S.C.Das, Principle and Practics Insurance: Dr.P.Periasamy	2	Total Lectures for Unit II: 7
	2	Essential Features and Principles of Life Insurance, Characteristics		2	
	3	Need and Importance of Mortality Table, Construction of Mortality Tables		2	
	4	Types of Mortality Table, Computation of Premium.		1	
III	1	Life Insurance Products, Term Assurance Plan, Endowment Policies	Insurance &Risk Management : P.K.Gupta, Insurance Management :S.C.Sahu & S.C.Das, Principle and Practics Insurance: Dr.P.Periasamy	2	Total Lectures for Unit III:8
	2	Whole Life Policies. Definition and Nature of Annuity		1	
	3	Life Insurance V/s Annuity, Types of AnnuityProducts		1	
	4	ULIP and Pension Plans, Meaning and Types, Selecting a Pension Plan		1	
	5	Comparison of different Insurance Plan		1	
	6	Life Insurance Corporation of India-Functions, Organization and Management		1	
	7	Case Let		1	
IV	1	Introduction to General Insurance ,Concept and Types	Insurance &Risk Management : P.K.Gupta, Insurance Management :S.C.Sahu & S.C.Das, Principle and Practics Insurance: Dr.P.Periasamy	1	Total Lectures for Unit IV: 8
	2	Fire Insurance , Concept, Definition, Nature and Functions		1	
	3	Procedure of taking out, Renewal, Cancellation and Assignment of Fire Insurance Policy		2	
	4	Principles of Fire Insurance-Utmost Good Faith,		1	
	5	Insurable Interest, Indemnity, Subrogation, Causa Proxima		2	
	6	Case Let		1	
V	1	Health Insurance, Automobile Insurance,	Insurance &Risk Management : P.K.Gupta, Insurance Management :S.C.Sahu & S.C.Das,	1	Total Lectures for Unit V: 6
	2	Agriculture Insurance, Property Insurance		2	
	3	Property Insurance ,Concept, Features, Functioning and Prospects		2	
	4	Case Let		1	
			Total Lectures Required:		**36**

HEAD
Department of Management Studies
P.R.M.I.T. & R, Badnera

Department of Management Studies

Semester –IV (Session 2021-2022)

Teaching Plan

Subject: Management and Financial Services

Subject Teacher: Prof. R.A.Kapdiya

Unit No.	Topic No.	Topic with detail course outlines	Text and References	No. of Periods Allotted	Remark if Any
I	01	Financial Services : Meaning , Importance and role	Gordan, E. and K. Natrajan, *Emerging Scenario of Financial Services*, Himalaya Publishing House, 1997	01	
	02	Indian Financial Market : Primary & Secondary	Avadhani, V.A., *Investment Analysis Portfolio Management*, 2nd ed., 1999.	01	
	03	Nature and Scope of Financial Services	Gordan, E. and K. Natrajan, *Emerging Scenario of Financial Services*, Himalaya Publishing House, 1997	01	
	04	Regulatory Framework of Financial Services		01	
	05	Financial System and Market		01	
	06	Case Study / Application Base		01	
		Total Lecture for Unit No 1st		**06**	
II	01	Risk and Return	Kevin, *Portfolio Management*.	01	
	02	Risk management		01	
	03	Stock Exchange in India	Bhalla, V.K., *Investment Management : Security Analysis and Portfolio Management*, 8th ed., Delhi, S.Chand, 2001	01	
	04	Stock Exchange operation		01	
	05	Managing of Issue of Share and Bonds		01	
	06	Fixed Deposit and Inter-Corporate Loans	Gordan, E. and K. Natrajan, *Emerging Scenario of Financial Services*, Himalaya Publishing House, 1997	01	
	07	Case Study		01	
		Total Lecture for Unit No 2nd		**07**	
III	**01**	Leasing	Gordan, E. and K. Natrajan, *Emerging Scenario of Financial Services*, Himalaya Publishing House, 1997	02	This Unit is based on Numerical
	02	Hire Purchase		02	
	03	Debt Securitization		02	
	04	Housing Finance		02	
		Total Lecture for Unit No 3rd		**08**	
IV	01	Credit Rating & Credit Rating	Bhalla, V.K.,	01	

		Agencies	*Investment Management : Security analysis and Portfolio Management*, New Delhi, S.Chand, 2001		
	02	Credit Card and their Types		01	
	03	Mutual Fund	Gordan, E. and K. Natrajan, *Emerging Scenario of Financial Services*, Himalaya Publishing House, 1997	01	
	04	Advance banking	Vasant Desai, Development Banking and Financial Intermediaries, Economy, Himalaya Publishing House Pvt. Ltd. India 2008	01	
	05	Insurance and their types	O.P. Agrawal, Banking and Insurance, Economy, Himalaya Publishing House Pvt. Ltd. India 2010	01	
	06	Merchant Banking services		01	
	07	Case study		01	
		Total Lecture for Unit No 4th		**07**	
V	01	Venture Capital`	Khan and Jain, Financial Management, Tata Mcgrawhill, 5th ed.	02	
		Factors for failing		01	
	02	Bill Discounting		01	
	03	Case Study		01	
		Total Lecture for Unit No 5th		**05**	

HEAD
Department of Management Studies
P.R.M.I.T. & R. Badnera

Department of Management Studies(M.B.A.)
Semester – (Session 2021-2022)
Subject: Security Analysis & Portfolio Management
SUBJECT TEACHER: Prof. K. S. Bijawe

Unit No.	Topic No.	Topic with detail course outlines	Text and References	No. of Periods Allotted	Remark if Any
I	1	Security Analysis- Defination, Objectives	Bhalla,V.K.,Investment Management:Secutity Anaysis and Portfolio Management.& Avadhani, V.A., Investment Analysis Portfolio Manageme	1	Total Lectures for Unit I: 7
	2	Operations of Indian Stock Market		1	
	3	Types & Its Recent Developments		1	
	4	Listing & Indexing of Securities Rules & Regulations		2	
	5	SEBI- Roles, Functions		1	
	6	Case Study		1	
II	1	Fundamental Analysis	Bhalla,V.K.,Investment Management:Secutity Anaysis and Portfolio Management.& Avadhani, V.A., Investment Analysis Portfolio Manageme	1	Total Lectures for Unit II: 7
	2	Economy-Industry & Company (EIC Analysis)		2	
	3	Technical Analysis		2	
	4	Tools & Techniques		1	
	5	Case Study		1	
III	1	Portfolio Management Concept & Meaning	Bhalla,V.K.,Investment Management:Secutity Anaysis and Portfolio Management.& Avadhani, V.A., Investment Analysis Portfolio Manageme .	1	Total Lectures for Unit III:8
	2	Risk-Return Tradeoff		1	
	3	The Mean -Variance Criterion (MVC)		1	
	4	Markowitz Portfolio Theory		1	
	5	MVC & Portfolio Selection		1	
	6	Portfolio of Two Risky Securities		1	
	7	A Three Security Portfolio		1	
	8	Case Study		1	
IV	1	The Efficient Frontier- Tracing & Constructing	Bhalla,V.K.,Investment Management:Secutity Anaysis and Portfolio Management.& Avadhani, V.A., Investment Analysis Portfolio Manageme .	1	Total Lectures for Unit IV: 7
	2	Sharpe: Single Index Model		1	
	3	Capital Asset Pricing Model		1	
	4	Characterisitics Lines		1	
	5	Factor Models and Arbitrage Pricing Theory.		2	
	6	Case Study		1	
V	1	Portfolio Investment Process	Bhalla,V.K.,Investment Management:Secutity Anaysis and Portfolio Management.& Avadhani, V.A., Investment Analysis Portfolio Manageme	1	Total Lectures for Unit V: 7
	2	Bond Portfolio Management Strategies		1	
	3	Investment Timing		1	
	4	Portfolio Performance Evaluation		2	
	5	Revision Models		1	
	6	Case Study		1	
			Total Lectures Required:		**36**

HEAD
Department of Management Studies
P.R.M.I.T. & R. Badnera

Department of Management Studies					
Semester –IV (Session 2021-2022)					
Subject: Strategic Management (MBA/401)					
SUBJECT TEACHER: Prof. A. V. Deshmukh					
Unit No.	**Topic No.**	**Topic with detail course outlines**	**Text and References**	**No. of Periods Allotted**	**Remark**
I	1	Concept of strategy	Business Policy and Strategic Management – Acharya and Govekar	1	Total =08
	2	Evolution of Corporate Policy in India		1	
	3	Strategic Management		1	
	4	Strategic management Process		1	
	5	Models and Phases of Strategic Management Process-I		1	
	6	Models and Phases of Strategic Management Process-II		1	
	7	7-S Framework		1	
	8	Case study		1	
II	1	SWOT Analysis	*Strategic Management- Francis Cherunilam*	1	Total =07
	2	Environmental Analysis-I		1	
	3	Environmental Analysis-II		1	
	4	Competitive Analysis		1	
	5	In Internal corporate Analysis-I		1	
	6	Internal corporate Analysis-II		1	
	7	Case Study		1	
III	1	Strategic Analysis	*Strategic Management-John Pearce-* TMH	1	Total =07
	2	Cost Analysis		1	
	3	Portfolio Analysis		1	
	4	Display Matrices		1	
	5	Operating and Financial Analysis-I		1	
	6	Operating and Financial Analysis-II		1	
	7	Case Study		1	
IV	1	Strategic Alternatives	Corporate Strategy and Business Policy - Azhar Kazmi, TMH Publications	1	Total =07
	2	Diversification		1	
	3	Mergers and Acquisition-I		1	
	4	Mergers and Acquisition-II		1	
	5	Turn-Around Management		1	
	6	Turn-Around Management		1	
	7	Case Study		1	
V	1	Strategic Choice	*Strategic Management-John Pearce-* TMH	1	Total =07
	2	Implementation of Strategy-I		1	
	3	Implementation of Strategy-II		1	
	4	Evaluation of Strategy		1	
	5	Control Of Strategy-I		1	
	6	Control Of Strategy-II		1	
	7	Case Study		1	

HEAD
Department of Management Studies
P.R.M.I.T. & R, Badnera

Department of Management Studies

Semester –IV (Session 2021-2022)

Subject: CLM

SUBJECT TEACHER: PROF. P.A.Kalmegh

Unit No.	Topic No.	Topic with detail course outlines	Text and References	No. of Periods Allotted	Remark if Any
I	1	Leadership – Meaning, Concepts and Myths,	Principles of Management 10th ed- Koontz, H and Wechrich,H	2	**Total=07**
	2	Components of Leadership- Leader, Followers and situation		2	
	3	Assessing Leadership & Measuring Its effects,.		2	
	4	Case Study		1	
II	1	Focus on the Leader – Power and Influence	Leadership & Management Development	1	**Total=08**
	2	Leadership and Values		1	
	3	Leadership Behaviour		2	
	4	Attributes of Leaders and Managers		2	
	5	Leadership and Management		1	
	6	Case Study		1	
III	1	Contingency Theories of Leadership	Leadership & Management Development	2	**Total=07**
	2	Styles of Leadership		2	
	3	Leadership Dimensions		1	
	4	Leadership Development		1	
	5	Case Study		1	
IV	1	Leadership Skills – Basic Leadership Skills	Human Resource Management -VSP Rao	1	**Total=06**
	2	Building Technical Competency		2	
	3	Advanced Leadership Skills		2	
	4	Case Study		1	
V	1	Groups, Teams and Their Leadership	West Michael - Effective Team Work Leadership & Management Development	1	**Total=08**
	2	Leadership and Change		2	
	3	Leadership Model		2	
	4	Brief Biographies of some great western and Indian Business Leaders-Henry Ford-II, Victor Trumph, Bill Gates		1	
	5	J.R.D. Tata, Dhirubhai Ambani, Ratan Tata		1	
	6	Case Study		1	

HEAD
Department of Management Studies
P.R.M.I.T. & R, Badnera

MBA Teaching Plan 2021-22 Winter Session (Even SEM) Sem-IV Subject : HBWP (MBA/4301/OB) SUBJECT TEACHER- PROF. Y. R. VAIDYA					
Unit No.	**Topic No**	**Topic with detail course outlines**	**Text and References**	**No. of Periods Allotted**	**Remark if Any**
1	1	OB: Definition, Objectives, Key Elements and nature.Organizational Behaviour Process,models	Management & Organistional Behaviour- Dr JS Reddy Himalaya Publications & Orgational Behaviour - K Ashwatthapa Himalaya Publications	2	
	2	Organizational Behaviour systems and its elements.Overview of evolution of Organizational Behaviour.	Orgational Behaviour - K Ashwatthapa Himalaya Publications	1	
	3	Contributing disciplines to Organizational Behaviour.	Orgational Behaviour - K Ashwatthapa Himalaya Publications	1	
	4	Individual and Individual Difference,	Orgational Behaviour - K Ashwatthapa Himalaya Publications	1	
	5	Human Behaviour and its causation, models of man,	Orgational Behaviour - K Ashwatthapa Himalaya Publications	1	
	6	whole person approach including physical, psychological, mental, emotional and spiritual level.	Orgational Behaviour - K Ashwatthapa Himalaya Publications	1	
	7	Case Study	A Tale of Twist & Turn A Case Study	1	
2	1	Intellignece, Emotions and moods,Abilities,competencies and skills	Orgational Behaviour - K Ashwatthapa Himalaya Publications	1	
	2	Personality, perception, attitudes,Values, motivation and learning.	Management & Organistional Behaviour- Dr JS Reddy Himalaya Publications	1	
	3	Personality: concepts, Theories and determinants,applications in Organizational Behaviour.	Orgational Behaviour - K Ashwatthapa Himalaya Publications	1	

	4	Perception:Defination, Difference between perception and sensation, factors affecting perception, improving perceptions and applications in Organizational Behaviour.	Orgational Behaviour - K Ashwatthapa Himalaya Publications	1	
	5	Attitudes and Values: Attitudes- concepts, formation, types, measurement and attitude change. Overview of values and its application in Organizational Behaviour	Orgational Behaviour - K Ashwatthapa Himalaya Publications	2	
	6	Case Study	Prijudices in Workplace Real or Perceived? Case Study	1	
3	1	Job Satisfaction, Organizational commitment and loyalty:Overview, Concept and Applications in Organizational Behaviour	Orgational Behaviour - K Ashwatthapa Himalaya Publications	1	
	2	Emotions and moods-types, sources and theories with applications in Organizational Behaviour	Orgational Behaviour - K Ashwatthapa Himalaya Publications	1	
	3	Emotional Intelligence, Transactional Analysis	Organiztional Behaviour- Margie Parikh Ranjen Gupta Mc Graw Hill Publications	1	
	4	Overview of Motivation and Morale in Organizational Behaviour,	Orgational Behaviour - K Ashwatthapa Himalaya Publications	1	
	5	Overview of Group Dynamics-Meaning, Types of Groups & Group Processes.	Orgational Behaviour - K Ashwatthapa Himalaya Publications	1	
	6	Case Study	Groups Make a Difference at Brazil's Semco	1	
4	1	Learning- Meaning, Definition, Principles and concept of reinforcement,punishment.	Orgational Behaviour - K Ashwatthapa Himalaya Publications	1	

	2	Learning Behaviour-Concept, Models and its applications. sources, types, aspects of conflicts	Management & Organistional Behaviour- Dr JS Reddy Himalaya Publications	1	
	3	Conflict and Conflict Resolution-Definition,	Management & Organistional Behaviour- Dr JS Reddy Himalaya Publications	1	
	4	Conflict resolution and management,	Orgational Behaviour - K Ashwatthapa Himalaya Publications	1	
	5	Negotiation strategies, Counseling, Participative management.	Orgational Behaviour - K Ashwatthapa Himalaya Publications	2	
	6	Case Study	When CEO of a Family Firm Gets into a Role Conflict	1	
5	1	Organizational culture and climate-Organizational culture its definition, types, functions, managing culture.	Orgational Behaviour - K Ashwatthapa Himalaya Publications	2	
	2	Creating Sustaining and changing culture.	Orgational Behaviour - K Ashwatthapa Himalaya Publications	1	
	3	Organizational Climate-Concept, Dimensions, Determinants and comparison with organizational culture	Orgational Behaviour - K Ashwatthapa Himalaya Publications	2	
	4	Quality of Work life- Concept, Meaning and Applications.	Orgational Behaviour - K Ashwatthapa Himalaya Publications	1	
	5	Case Study	P & G - The Epitome of Organizational Culture	2	

HEAD
Department of Management Studies
P.R.M.I.T. & R, Badnera

MBA Teaching Plan 2021-22 Winter Session (Even SEM) SEM-IV Subject : IHRM (MBA/4306/OB

SUBJECT TEACHER-PROF. Y. R. VAIDYA

Unit No.	Topic No	Topic with detail course outlines	Text and References	No. of Periods Allotted	Remark if Any
1	1	International HRM: Concept and Issues	International HRM Text & Cases -S.C. Gupta, MacMillan Publication	2	
	2	Barriers in Global HRM	International HRM Text & Cases -S.C. Gupta, MacMillan Publication	1	
	3	Culture, Society and Nations	International HRM Text & Cases -S.C. Gupta, MacMillan Publication	1	
	4	Cultural Change and Universals	International HRM Text & Cases -S.C. Gupta, MacMillan Publication	1	
	5	Cultural Sensitivity and Global Business	International HRM Text & Cases -S.C. Gupta, MacMillan Publication	1	
	6	Cross Cultural Theories.	International HRM Text & Cases -S.C. Gupta, MacMillan Publication	1	
	7	Case Study	IHRM Challenges- A Case Study	1	
2	1	International Business	International HRM Text & Cases -S.C. Gupta, MacMillan Publication	2	
	2	Employee Behaviour and Cross Culture	International HRM Text & Cases -S.C. Gupta, MacMillan Publication	2	
	3	Cross Cultural Negotiations	International HRM Text & Cases -S.C. Gupta, MacMillan Publication	1	
	4	Organizational Culture.	International HRM Text & Cases -S.C. Gupta, MacMillan Publication	1	
	5	Case Study	Cultural Clash- A Case Study	1	
3	1	Culture and Organisational Performance	International HRM Text & Cases -S.C. Gupta, MacMillan Publication	2	

	2	International Business and International HRM Approaches	International HRM Text & Cases -S.C. Gupta, MacMillan Publication	2	
	3	Organizing Multinational Structures	International HRM Text & Cases -S.C. Gupta, MacMillan Publication	2	
	4	Case Study	NIIT Case Study	1	
4	1	International HRM Functions: Recruitment and Selection	International HRM Text & Cases -S.C. Gupta, MacMillan Publication	2	
	2	Training and Development	International HRM Text & Cases -S.C. Gupta, MacMillan Publication	1	
	3	Compensation,	International HRM Text & Cases -S.C. Gupta, MacMillan Publication	1	
	4	Employee Performance	International HRM Text & Cases -S.C. Gupta, MacMillan Publication	1	
	5	Case Study	JAMBA Juice- Case Study	1	
5	1	International Projects and HR	International HRM Text & Cases -S.C. Gupta, MacMillan Publication	2	
	2	Organizational Ethics	International HRM Text & Cases -S.C. Gupta, MacMillan Publication	2	
	3	Ethics across culture	International HRM Text & Cases -S.C. Gupta, MacMillan Publication	2	
	4	Case Study	Coca Cola Case Study	2	

HEAD
Department of Management Studies
P.R.M.I.T. & R. Badnera

Department of Management Studies
Semester –IV (Session 2021-2022)
Subject: Knowledge Management
SUBJECT TEACHER: Prof. P. A. Kalmegh

Unit No.	Topic No.	Topic with detail course outlines	Text and References	No. of Periods Allotted	Remark
I	1	Knowledge and Knowledge Management: Concept and Meaning	Donald Hislop, Knowledge Management in Organization, Oxford University Press Knowledge Human Resource Management-Ganesh Shermon	1	Total Lectures for Unit I: 8
	2	Contemporary Significance, Aims, Philosophy and Structure		1	
	3	Knowledge Society Concept, post industrial concept		1	
	4	Types of Knowledge, Conduit model of knowledge sharing		1	
	5	Knowledge management processes.		1	
	6	Knowledge-features, perspectives of knowledge		1	
	7	Organizational knowledge base		1	
	8	Case Study		1	
II	1	Managing knowledge, knowledge management and business strategy	Knowledge Management in theory & practice-Kimiz Dalkir & Donald Hislop, Knowledge Management in Organization	1	Total Lectures for Unit II: 7
	2	Knowledge management strategies-Hansen Codification versus personalization framework		1	
	3	Earl's Seven School of knowledge management		1	
	4	Alvesson and Karreman's four knowledge management approaches.		1	
	5	Knowledge worker, knowledge intensive firms, knowledge work and ambiguity		1	
	6	Workers participation in knowledge processes.		1	
	7	Case Study		1	
III	1	Learning and Knowledge Management: The Heterogeneity of learning,	Knowledge Management in theory & practice-Kimiz Dalkir & Donald Hislop, Knowledge Management in Organization	1	Total Lectures for Unit III: 8
	2	Dynamics of organizational learning, The learning organisation		1	
	3	Knowledge creations and loss-Innovation		1	
	4	Dynamics and knowledge processes		1	
	5	Knowledge creation theory, social dynamics of innovation networking processes.		1	
	6	Forgetting and Unlearning Knowledge-Typology of forgetting		1	
	7	Barriers and facilitation of unlearning.		1	
	8	Case Study		1	
IV	1	Managing and sharing knowledge: Socio Cultural Issues, Interpersonal Trust, Group Identity, Personality.	Knowledge Management in theory & practice-Kimiz Dalkir & Donald Hislop, Knowledge Management in Organization	1	Total Lectures for Unit IV: 7
	2	Communities of practice-basic characteristics, origins, features, dynamics, knowledge base, intra community		2	
	3	knowledge processes and managing communities of practices		1	
	4	Cross Community, boundary spanning and knowledge process-significance, identity, knowledge, trust and social relations, relationship management.		2	
	5	Case Study		1	
V	1	Power, politics, conflict and knowledge processes.	Knowledge Management in theory & practice-Kimiz Dalkir & Donald Hislop, Knowledge Management in Organization	1	Total Lectures for Unit V: 6
	2	Information, Communication Technology and Knowledge Management		1	
	3	Knowledge management-culture management and HRM practices		1	
	4	Leadership and knowledge management		1	
	5	Knowledge management as a fashion		1	
	6	Case Study		1	
			Total Lectures Required	**36**	

HEAD
Department of Management Studies
P.R.M.I.T. & R., Badnera

Department of Management StudiesSemester –IV (Session 2021-2022)

Teaching Plan

Subject: Management Of Group Process

Subject Teacher : Prof. M.M.Nistane

Unit No.	Topic No.	Topic with detail course outlines	Text and References	No. of Periods Allotted	Remark if Any
I	1	Nature &Characteristics of Group, Types of Group, Theories	P.Subba Rao,K.Aswatathapa.	2	
	2	Group formation, Stages of Group, Development,		2	
	3	Usefulness & Pitfalls of Group, Size and Name of Group,		1	
	4	Group Decision Making & problem solving Processes		1	
	5	Models of Decision Making		1	
	6	Case Study		1	
		Total Lectures		**8**	
II	1	Group as a medium of learning, Determinants of Group	K.Aswatathapa	2	
	2	Behavior, Group for Development and Change		2	
	3	Conflicts and Negotiation in groups		2	
	4	Case Lets		1	
		Total Lectures		**7**	
III	1	Group Dynamics, Group Cohesiveness	P.Subba Rao,K.Aswatathapa.	2	
	2	Inter Group Processes		1	
	3	Group Change Influence Process		2	
	4	Case Study		1	
		Total Lectures		**6**	
IV	1	Interpersonal Relationship &Interpersonal Communication	K.Aswatathapa	2	
	2	Interpersonal Awareness,		1	
	3	Group Communication		1	
	4	Its process, Feedback Process.		2	
	5	Case Lets		1	
		Total Lectures		**7**	
V	1	Group Effects: Group Synergy,	P.Subba Rao,K.Aswatathapa	2	
	2	Inter Group Relationship,		1	
	3	Team Building, Group Leadership, Power and Politics in Group		2	
	4	Stress and Frustration and its management in organization.		2	
	5	Case Study		**1**	
		Total Lectures		**8**	
				36	

HEAD
Department of Management Studies
P.R.M.I.T. & R. Badnera

Department of Management Studies

Semester –III (Session 2021-2022)

Subject: Organizational Development and intervention strategies

Subject Teacher: Miss. M. M. Nistane

Unit No.	Topic No.	Topic with detail course outlines	Text and References	No. of Periods Allotted	Remark if Any
I	01	Introduction	• Theory of OD & Change by Cummings & Worley • OD & Transformation By French, Bell& Zawacki • HRM by P. Subba Rao • HRD by Werner Destmone	01	Many other books & internet will be referred for Diagrams, Data ,Case studies & Details
	02	Develop insight into emerging trends and scope of the subject		01	
	03	Meaning, Concept and myth		01	
	04	Theory of OD		01	
	05	Approaches to problem Diagnosis		01	
	06	Case study		01	
Total Lecture				**06**	
II	01	Techniques- steps in OD	• Theory of OD & Change by Cummings & Worley • OD & Transformation By French, Bell& Zawacki • HRM by P. Subba Rao • HRD by Werner Destmone	02	Many other books & internet will be referred for Diagrams, Data ,Case studies & Details
	02	General OD competencies		01	
	03	OD skills		01	
	04	Technical training		01	
	05	Case Study		01	
Total Lecture				**06**	
III	01	OD Evaluation	• Theory of OD & Change by Cummings & Worley • OD & Transformation By French, Bell& Zawacki • HRM by P. Subba Rao • HRD by Werner Destmone	02	Many other books & internet will be referred for Diagrams, Data ,Case studies & Details
	02	OD Ethics of professional		01	
	03	Future of OD		01	
	04	Introduction to Organizational Effectiveness		01	
	05	Concept and objectives		01	
	06	Nature and need of OEC		01	
	07	Case study		01	
Total Lecture				**08**	
IV	01	Organizational change	• Theory of OD & Change by Cummings & Worley • OD & Transformation By French, Bell& Zawacki	01	Many other books & internet will be referred for Diagrams, Data ,Case studies &
	02	Concept and objectives		01	
	03	Nature and types		01	
	04	Models and implementation		02	
	05	Change strategies		02	

			• HRM by P. Subba Rao • HRD by Werner Destmone		Details
	06	Change agent			
	06	Case Study		01	
Total Lecture				**08**	
V	01	Organizational Intervention	• Theory of OD & Change by Cummings & Worley • OD & Transformation By French, Bell& Zawacki • HRM by P. Subba Rao • HRD by Werner Destmone	01	Many other books & internet will be referred for Diagrams, Data ,Case studies & Details
	02	Organizational Intervention- Major techniques		01	
	03	Designing intervention		01	
	04	Interpersonal Interventions		01	
	05	Team Interventions		01	
	06	Inter- group Interventions		01	
	07	Development interventions Some important final issues concerning OD		01	
	08	Case Study		01	
Total Lecture				**08**	

HEAD
Department of Management Studies
P.R.M.I.T. & R, Badnera

Department of Management Studies
Semester –IV (Session 2021-2022)
Subject: International Marketing Environment
SUBJECT TEACHER: Prof. S. B. Diwan

Unit No.	Topic No.	Topic with detail course outlines	Text and References	No. of Periods Allotted	Remark
I	1	Introduction- Distinction between International Marketing and Domestic Marketing	International Marketing : Rakesh Joshi, Oxford International Marketing Mgt: U.C.Mathur, SAGE	1	Total Lectures for Unit I: 8
	2	International Institutions – UNCTAD, WTO		2	
	3	Economic Environment of International Marketing		1	
	4	Trade Agreement – Free Trade Area, Customs Union, Common Market		2	
	5	Evolution of International Business Theories		1	
	6	Case Study		1	
II	1	Overview of India & World Trade – EXIM Policy	International Marketing : Rakesh Joshi, Oxford International Marketing Mgt: U.C.Mathur, SAGE	2	Total Lectures for Unit II: 8
	2	Foreign Trade Policy and Regulation		1	
	3	Trading Partners- Bilateral & Multilateral Trade Agreement		2	
	4	International Market Place & Space, Barriers, International Politics & Economic Integration , Trade Blocks		2	
	5	Case Study		1	
III	1	Institutional Infrastructure for Export Promotion – Export Promotion Councils (EPC)	International Marketing : Rakesh Joshi, Oxford International Marketing Mgt: U.C.Mathur, SAGE	2	Total Lectures for Unit III: 7
	2	Public Sector Trading Agencies – ECGC		1	
	3	Commodity Board		1	
	4	Export – Import Management – Registration of Exporters, Procedure & Documents		1	
	5	Export Quotations		1	
	6	Case Study		1	
IV	1	Shipping and Transportation.	International Marketing : Rakesh Joshi, Oxford International Marketing Mgt: U.C.Mathur, SAGE	1	Total Lectures for Unit IV: 8
	2	Insurance, Negotiations of Documents		2	
	3	Instruments of Payments – Open Account, Bills of Exchange		2	
	4	Instruments of Payments – Letter of Credit, Expert Finance		2	
	5	Case Study		1	
V	1	Trade and BOP of India	International Marketing : Rakesh Joshi, Oxford International Marketing Mgt: U.C.Mathur, SAGE	2	Total Lectures for Unit V: 5
	2	Technological Developments and International Marketing		2	
	3	Case Study		1	
			Total Lectures Required	**36**	

HEAD
Department of Management Studies
P.R.M.I.T. & R., Badnera

Department of Management Studies

Semester –III (Session 2021-2022)

Subject: Marketing for Non-Profit Organizations and Social Services

Subject Teacher: Miss. R. K. Dhanuka

Unit No.	Topic No.	Topic with detail course outlines	Text and References	No. of Periods Allotted	Remark if Any
I	01	Introduction	• Marketing Non Profit Organizations by S.M. Jha • Kotler, Philip and Roberto Eduardo L., Social Marketing	01	Many other books & internet will be referred for Diagrams, Data ,Case studies & Details
	02	Scope of Marketing in the context of NPO: Hospitals, Police, Public Services, etc.		01	
	03	Scope of Marketing in the context of NPO: Hospitals, Police, Public Services, etc		01	
	04	Scope of Marketing in the context of social services, e.g. health and family welfare, adult literacy Programme.		01	
	05	Application of Marketing in the context of social services, e.g. health and family welfare, adult literacy Programme		01	
	06	Case study		01	
Total Lecture				**06**	
II	01	Setting Marketing Objective	• Marketing Non Profit Organizations by S.M. Jha • Kotler, Philip and Roberto Eduardo L., • Social Marketing	01	Many other books & internet will be referred for Diagrams, Data ,Case studies & Details
	02	Analyzing internal & external Environment influencing NPO's		02	
	03	Analyzing internal & external Environment influencing Social Services		02	
	04	Case Study		01	
Total Lecture				**06**	
III	01	Market Segmentation	• Marketing Non	02	Many other

	02	Customer Targeting	Profit Organizations by S.M. Jha • Kotler, Philip and Roberto Eduardo L., Social Marketing	01	books & internet will be referred for Diagrams, Data ,Case studies & Details
	03	Marketing Mix Strategies		02	
	04	Product-Service life cycle for NPO's		01	
	05	Product-Service life cycle for social services		01	
	06	Case study		01	
Total Lecture				**08**	
IV	01	Beneficiary Contact Programme	• Marketing Non Profit Organizations by S.M. Jha • Kotler, Philip and Roberto Eduardo L., Social Marketing	01	Many other books & internet will be referred for Diagrams, Data ,Case studies & Details
	02	Use of print and electronic media in mass communication		01	
	03	Diffusion of innovative ideas		01	
	04	Marketing Tools		02	
	05	Distribution & Delivery Strategy for NPOs and Social Services		02	
	06	Case Study		01	
Total Lecture				**08**	
V	01	Marketing Strategies for social services	• Marketing Non Profit Organizations by S.M. Jha • Kotler, Philip and Roberto Eduardo L., Social Marketing	02	Many other books & internet will be referred for Diagrams, Data ,Case studies & Details
	02	Marketing Strategies for NPOs		02	
	03	Relevance of CST (Corporate Social Responsibility)		01	
	04	Review and monitoring of marketing strategies of socially relevant programmes.		02	
	05	Case Study		01	
Total Lecture				**08**	

HEAD
Department of Management Studies
P.R.M.I.T. & R, Badnera

Department of Management Studies

Semester –IV (Session 2021-2022

Subject: Marketing Of Services (MBA/4202/SM)

SUBJECT TEACHER: Prof. R.K. Dhanuka

Unit No.	Topic No.	Topic with detail course outlines	Text and References	No. of Periods Allotted	Remark if Any
I	1	Understanding Services	Services Marketing – Concepts, application and cases- Shajahan S.	1	**Total=07**
	2	The nature of services marketing		2	
	3	Classification of Services		1	
	4	Classification of Services		1	
	5	Importance of Service Marketing		1	
	6	Case Study		1	
II	1	Services Experience, Consumer Behavior in Services	Services Marketing Text & Readings, Indian Perspective – Ravi Shankar	2	**Total=08**
	2	Customer Expectations and Perceptions,		1	
	3	Listening to Customers		1	
	4	Monitoring and Measuring Customer Satisfaction		1	
	5	Monitoring and Measuring Customer Satisfaction		1	
	6	Complaints Handling		1	
	7	Case Study		1	
III	1	Strategic Issues in Service Marketing	Services Marketing Text & Cases – Rajendra Nargandkar	2	**Total=07**
	2	Market Segmentation and Targeting		1	
	3	Positioning and Differentiation of Services		1	
	4	Managing Demand and Capacity		1	
	5	Managing Demand and Capacity		1	
	6	Case Study		1	
IV	1	The Marketing Mix Elements	Services Marketing Text & Readings,	2	**Total=07**
	2	Maximizing Services Marketing Potential Relationship marketing		1	

	3	Maximizing Services Marketing Potential Relationship marketing	Indian Perspective – Ravi Shankar Services Marketing – Concepts, application and cases- Shajahan S.	1	
	4	Internal Marketing		1	
	5	Supplementary Services		1	
	6	Case Study & Practices		1	
V	1	Tourism and Travel Services Marketing		1	**Total=07**
	2	Marketing of Financial Services		1	
	3	Communication Services		1	
	4	Information Services		1	
	5	Media Services Marketing-Advertising (Professional Services)		1	
	6	Media Service Marketing –Brand (Professional Services)		1	
	7	Case Study		1	
				Total Session	36

HEAD
Department of Management Studies
P.R.M.I.T. & R. Badnera

Department of Management Studies

Semester –IV (Session 2021-2022)

Subject: Retail Marketing

SUBJECT TEACHER: Prof. S.B.Diwan

Unit No.	Topic No.	Topic with detail course outlines	Text and References	No. of Periods Allotted	Remark
I	0.1	Retailing, An Introduction	Retailing Management – Swapna Pradhan	1	Total Lectures for Unit I: 7
	0.2	Retailing, Indian Vs Global Scenario		2	
	0.3	Types of Retailing		1	
	0.4	Types of Retail formats		2	
	0.5	Franchising in retailing		1	
II	1	Retail Marketing Mix	Channel Management & Retail Management – Meenal Dhotre	2	Total Lectures for Unit II: 8
	1.1	Consumer buying behavior in Retailing		2	
	1.2	Segmentation & Positioning in Retail		1	
	1.3	Structure of Retail Organization		1	
	1.4	Careers in retailing		1	
	1.5	Case Study		1	
III	2	Factors affecting retail location decision	Retail Management – Gibson Vedamani	2	Total Lectures for Unit III: 8
	2.1	Stratigies based on Retail location		2	
	2.2	Store Design		1	
	2.3	Store layout and Factors affecting Store layouts		1	
	2.4	Retailing image mix , Store façade		1	
	2.5	Case Study		1	
IV	3	Retail Communication Mix	The Art of Retailing – A.J. Lamba	1	Total Lectures for Unit IV: 7
	3.1	Sales Promotion in Retailing		1	
	3.2	Advertising in Retailing		1	
	3.3	Public Relations in Retailing		1	
	3.4	Personal Selling in Retailing		1	
	3.5	Steps in planning retail communication		1	
	3.6	Case Study		1	
V	4	Retail Strategies : Differentiation Strategies	Retail Management – W. Steward	1	Total Lectures for Unit V: 7
	4.1	Growth Strategies		1	
	4.2	Expansion Strategies		1	
	4.3	Pricing Stratigies in Retail		1	
	4.4	Role of IT in retailing		1	
	4.5	Case Study		1	
			Total Lectures Required: 36		

HEAD
Department of Management Studies
P.R.M.I.T. & R. Badnera

Prof. Ram Meghe Institute of Technology & Research, Badnera
Department of Management Studies(M.B.A.)

Lesson Plan
Subject: Rural Marketing
Semester –IV (Session 2021-2022)
Subject Teacher: Prof. G.D. Pachaghare

Unit No.	Topic No.	Topic with detail course outlines	Text and References	No. of Periods Allotted	Remark
I	1	Rural Marketing Management Perspectives	C.S.G. Krishnamacharyulu & Lalitha Ramakrishnan, "Rural Marketing" – Text and Cases, Pearson Education	1	Total Lectures for Unit I: 6
	2	Rural – Urban Disparities, Challenges to Indian Marketer		2	
	3	Rural Marketing – Concept, Scope, Nature, Taxonomy Attractiveness		1	
	4	Urban Vs. Rural Marketing		1	
	5	Case study		1	
II	1	Rural consumer behavior – buyer characteristics	C.S.G. Krishnamacharyulu & Lalitha Ramakrishnan, "Rural Marketing" – Text and Cases, Pearson Education	1	Total Lectures for Unit II: 7
	2	Decision process and behavior patterns, evaluation procedure		2	
	3	Brand loyalty in rural markets		1	
	4	Rural Marketing-Innovation adoption		2	
	5	Case Study		1	
III	1	Information System for Rural Marketing – Concepts, Significance	C.S.G. Krishnamacharyulu & Lalitha Ramakrishnan, "Rural Marketing" – Text and Cases, Pearson Education C.S.G. Krishnamacharyulu & Lalitha Ramakrishnan, "Cases in rural marketing and integrated approach". Pearson education.	1	Total Lectures for Unit III: 8
	2	Internal Reporting System		1	
	3	Marketing Research System, Decision Support System		2	
	4	Selecting and Attracting Markets – Concepts and Process, Segmentation, Degrees, Bases, Segmentation guidelines		2	
	5	Targeting and Positioning		1	
	6	Case Study		1	
IV	1	Product Strategy for rural Markets, Concept and Significance	C.S.G. Krishnamacharyulu & Lalitha Ramakrishnan, "Rural Marketing" – Text and Cases, Pearson Education	2	Total Lectures for Unit IV: 9
	2	Product Mix and Product Item Decisions		2	
	3	Competitive Product Strategies		1	
	4	Pricing Strategy in Rural Marketing – Concept, Significance, Objectives, Pricing Strategy		2	
	5	Case Study		1	
V	1	Promotion towards rural audience	Robert Chambers, "Rural Development: Putting the last first", Pearson Education.	2	Total Lectures for Unit V: 7
	2	Exploring media, profiling target audience, designing right promotion strategy and campaign		2	
	3	Rural Distribution – Channels, old setup		1	
	4	New players, new approaches, coverage strategy		1	
	5	Case Study		1	
			Total Lectures Required	**36**	

HEAD
Department of Management Studies
P.R.M.I.T. & R, Badnera

Department of Management Studies
Semester –III (Session 2021-2022)
Subject: Sales Promotion Management
Subject Teacher: Miss. Pratiksha A. Kalmegh

Unit No.	Topic No.	Topic with detail course outlines	Text and References	No. of Periods Allotted	Total
I	01	Introduction	Sales Promotion & Advertising Management by M.N. Mishra Advertising, sales and promotion Management by S.A Chunawala Sales Promotion Management by Bir Singh	01	7
	02	Sales Promotion & Marketing Mix		02	
	03	Nature and Scope of Sales Promotion		01	
	04	Types of Sales Promotion		02	
	05	Case Study		01	
II	01	Consumer Behavior & sales Promotion	Sales Promotion & Advertising Management by M.N. Mishra Advertising, sales and promotion Management by S.A Chunawala Sales Promotion Management by Bir Singh	02	7
	02	Deal Prone consumer		02	
	03	Economic Theories of promotion		02	
	04	Case Study		01	
III	01	Sales Promotion's Impact on Sales	Sales Promotion & Advertising Management by M.N. Mishra Advertising, sales and promotion Management by S.A Chunawala Sales Promotion Management by Bir Singh	01	8
	02	Sales promotion experiments		02	
	03	Evaluation of Sales promotion experiments		02	
	04	Choice & purchase timing models		02	
	05	Case study		01	
IV	01	Introduction to Sales promotion planning	Sales Promotion & Advertising Management by M.N. Mishra Advertising, sales and promotion Management by S.A Chunawala Sales Promotion Management by Bir Singh	01	7
	02	Process of Sales promotion planning		02	
	03	Introduction to sales promotion budget		01	
	04	Process of sales promotion budget		01	
	05	Approaches to sales promotion budget		01	
	06	Case Study		01	
V	01	Designing Promotional strategies	Sales Promotion & Advertising Management by M.N. Mishra Advertising, sales and promotion Management by S.A Chunawala Sales Promotion Management by Bir Singh	02	7
	02	Strategic issues in designing promotional strategies		01	
	03	Substantive Findings Coupons		01	
	04	Issues on Coupons		01	
	05	Trade dealings		01	
	06	Case study		01	
			Total Lectures Required: 36		

HEAD
Department of Management Studies
P.R.M.I.T. & R. Badnera

P. G. Department of Computer Applications

(Odd Semester AY: 2021

Session/Teaching Plan

Name of Faculty: Rupali Sherekar **Year: I**

Subject Name: Lab1: OOP in Java **Sem: I** **Subject**

Code: MCA 20107

Sr. No	Unit No.	Topics to be Covered	Month	Week	Conduction Date
1	Unit I	Java Basics, Data types and Variables, Operators, Control structures	January	Week1	
2		implementing concepts of OOPs using Java, , classes, declaring objects,			
3		Packages.,access control, Inheritance, Polymorphism,		Week2	
4		Abstract classes, Interfaces,			
5		Arrays: Basics, One - & Multi- dimensional.		Week3	
6		Examples			
7		Examples		Week4	
8	Unit II	Exception handling: Built-in ,Using try and catch,			
9		multiple catch clauses, throw,	February	Week1	
10		throws, finally clauses,			
11		checked and unchecked Exceptions,		Week2	
12		Multithreaded programming: Java thread model,			
13		creating threads,		Week3	
14		Methods of Thread class			
15		thread priorities		Week4	
16		synchronization.			
17	Unit III	Java I/O: Stream classes, Byte Stream & Character Streams, Predefined streams,BufferedInputStream	March	Week1	
18		Input stream, Output stream, FileInputstream,			
19		FileOutputstream		Week 2	
20		Character stream			
21		Generic Programming:Introduction		Week 3	
22		generic classes, Bounded types			
23		generic methods, Wildcards, Comparator		Week 4	
24	Unit III	Java Collections Framework: Introduction, Collections Framework hierarchy, List,			
25		Queue, Set,		Week 5	
26		Map Interface and their implementing classes and methods,			
27		Iterator/ListIterator, Utility classes :Arrays,		Week 1	

		Collection			
28		Introduction To Swing: Hierarchy Of Java Swing Classes,			
29		Swing GUI Components, Related Packages,			
30		Swing Control Classes & Methods,		Week 2	
31		Handling Events in Swing GUI			
32		Handling Events in Swing GUI			
33		Handling Events in Swing GUI		Week 3	
34		Examples			
35		Examples	April	Week 4	
				Extra	

Faculty Incharge

Prof. Ram Meghe Institute of Technology and Research, Badnera

Department of Master in Computer Application

Practical Lesson Plan

Subject : 20108 DATA STRUCTURES & ALGORITHMS

(Odd Semester AY: 2021-2022) Winter 2021

Sr. No.	Name of Practical	Date			Sign of Faculty	Sign of HOD
		B1	B2	B3		
1	Write a program in C++ for inserting and deleting element from array.	29-12-2021	27-12-2021	28-12-2021		
2	Write a program in C++ for Linear Search and Binary Search.	05-01-2022	03-01-2022	04-01-2022		
3	Write a program in C++ for bubble sort.	12-01-2022	10-01-2022	11-01-2022		
4	Write a program in C++ to check whether the C++ compiler stores 2 dimensional array elements in Row Major or Column major format.	19-01-2022	17-01-2022	18-01-2022		
5	Write a program in C++ to implement the first pattern matching Algorithm.	02-02-2022	24-01-2022	25-01-2022		
6	Write a program in C++ for implementing a linked list using pointers.	09-02-2022	07-02-2022	01-02-2022		
7	Write a program in C++ for implementing a stack using linked list and pointers.	16-02-2022	14-02-2022	08-02-2022		
8	Write a program in C++ for evaluation of a postfix expression.	23-02-2022	21-02-2022	15-02-2022		
9	Write a recursive program in C++ a. to generate nth number of fibinacci series b. to find the factorial of a number.	02-03-2022	28-02-2022	22-02-2022		
10	Write a recursive program in C++ for solving the Tower of Hanoi Problem.	09-03-2022	07-03-2022	08-03-2022		
11	Write a program in C++ for implementing a queue	16-03-2022	14-03-2022	15-02-2022		
12	Write a program in C++ for Insertion sort .	23-03-2022	21-03-2022	22-03-2022		
13	Write a program in C++ for Selection sort .	30-03-2022	28-03-2022	29-03-2022		

N D Bobade

Prof. N. D. Bobade

Faculty Incharge

Prof. Ram Meghe Institute of Technology & Research Badnera
Department of Master in Computer Application
(Odd Semester AY: 2021-2022) Winter 2021

Session/Teaching Plan

Name of Faculty: Prof.Nilima D.Bobade

Subject Name: Data Structure and Algorithms **Year: FYMCA** **Section: A/B/DSE**

Sem: I **Subject Code:** MCA20102

Sr.No	Unit No.	Topics to be Covered	Month	Week	Day
1	Unit I	General Introduction of the subject, syllabus, importance etc.	December	Week 4	1
2		Data structures basics			2
3		Mathematical/algorithmic notations & functions,			3
4		Complexity of algorithms, Subalgorithms. String			4
5		processing: storing strings, character data type,		Week 5	1
6		string operations, word processing,			2,3
7		first pattern matching algorithm			4
8		second pattern matching algorithms			
9	Unit II	Linear arrays and their representation in memory,		week 2	1.2
10		inserting operations,			3
11		deleting operations,			4
12		Bubble sort,	January	Week 3	1
13		Linear search and Binary search algorithms.			2
14		Multidimensional arrays, Pointer arrays.			3,4
15		Record structures and their memory representation		Week 4	1,2
16		.Matrices and sparse matrices			3
17	UNIT III	Linked lists and their representation in memory,			4
18		traversing a linked list,		week 5	1
19		searching a linked list.			2
20		Memory allocation & garbage collection.			3
21		Insertion Operations			4
22		deletion operations on linked lists.		week 6	1
23		Header linked lists, Two-way linked lists.		Week 1	1,2,3
24	IV	Stacks and their array representation.		Week 2	1,2
25		Push & Pop operation			3
26		Arithmetic expressions:Polish notation.			4
27		Evaluation of expression	February	Week3	1,2
					3

28	UNIT	Quick sort, an application of stacks,		Week 4	1
29		Recursion.Tower of Hanoi problem.			2,3
30		Implementation of recursive procedures by stacks			4
31		Queues , Representation of queues,Insert Delete operation		Week 1	1
32		Deques. Priority queues.			2,3
33	UNIT V	Trees, Binary trees & and their representation in	MARCH	Week 2	1
34		Traversing binary trees.			2,3,4
35		Traversal algorithms using stacks,		Week 3	1,2,3
36		Headernodes: threads.		Week4	1
37		Binary search trees, searching,			2,3,4
38		inserting in binary trees		Week 5	1,2,3
39		deleting in binary trees.		week1	1
40		Heap and heapsort.		Week 2	1,2
41		Path length &Huffman's' algorithm. General trees			3,4
42	Unit VI	Graph theory, sequential representation of graphs, Linked representation	APRIL	Week 3	1
43		Warshalls'algorithm			2
44		operations & traversing thegraphs.			3
45		Posets & Topological sorting.		Week4	1
46		SelectionSort.			2
47		Insertion Sort			3,4
48		Merging & Merge-sort		Week 5	1
49		Radix sort,			2,3
50		Hashing.			4

N.D.Bobade

N.D.Bobade

Faculty Incharge

Prof. Ram Meghe Institute of Technology & Research Badnera
Department of Master in Computer Application
(Odd/Even Semester AY: 2021-2022)

Session/Teaching Plan

Name of Faculty: Prof. Vinit A. Sinha **Year: MCA I Section: A/B/DSE**
Subject Name: Operating System **Sem: I Subject Code:** MCA20103

Sr. No	Unit No.	Topics to be Covered	Month	Week	Days
1	Unit I	General Introduction of the subject	December	4	1
2		Operating System Definition			2
3		OS Evolution, OS Components		5	1
4		OS Services.			2
5		Process Concept.			3
6		Process Scheduling.	January	1	1
7		Operations on Processes.		2	1
8		Cooperating Processes.			2
9		Inter process Communication.			3
10		Threads Overview, Threading Issue			4
11		Java Threads , Multithreading Models.		3	1
12	Unit II	CPU Scheduling Concepts.			2
13		Scheduling Criteria and Algorithms.			3
14		The Critical-Section Problem.			4
15		Synchronization Hardware.		4	1
16		Semaphores, Monitors.			2
17		Deadlocks-Definition & Characterization.			3
18		Deadlocks Prevention			4
19		Deadlocks Avoidance		5	1
20		Detection and Recovery from Deadlock.	February	1	1
21	Unit III	Introduction of Memory Management.			2
22		Swapping, Contiguous Memory			3
23		Allocation Schemes,			4
24		Paging Process,		2	1
25		Need of Segmentation			2
26		Background, Demand Paging scheme,			3
28		Process Creation,			4
29		Page Replacement Policies,		3	1
30		Allocation of Frames,			2
31		Thrashing			3

Sr. No	Unit No.	Topics to be Covered			Days
32	Unit IV	File-System Interface		4	1
33		Directory structure, File-System Mounting			2
34		File Sharing & Protection.			3
35		File-System Structure			4
36		File-System Implementation		5	1
37		Directory Implementation	March	1	2
38		Allocation Methods			3
39		Free- Space Management		2	1
40		File Recovery			2
41		File-System Mounting			3
42	Unit V	I/O Systems: Overview			4
43		I/O Hardware		3	1
44		Application I/O Interface			2
45		Kernel I/O Subsystem.			3
46		Transforming I/O to Hardware Operations			4
47		Disk Scheduling		4	1
48		Disk Management			2
49		Swap – Space Management			3
50		RAID Structure.			4
51	Unit VI	File protection & security		5	1
52		Goals of Protection			2
53		Principles of Protection			3
54		Revocation of Access Rights,		2	1
55		Security Problem,	April		2
56		Program Threats			3
57		Classifications,			4
58		Firewalling to Protect Systems		3	1
59		Implementing Security Defenses			2
60		User Authentication			

Prof. Ram Meghe Institute of Technology & Research Badnera

Department of Master in Computer Application

Odd Semester AY:2021-2022 (Winter 21)

MCA I Year Semester I

Lession Plan

Name of Faculty: **Prof. Vinit Sinha**

Subject Name: Operating system LAB

Sr.No	Topics to be Covered	Dates			Sign. of Faculty	Sign. of HOD
		B1	B2	B3		
1	Case Study on – Ubuntu Operating system	28/12/2021			Prof. V.A. Sinha	
2	Shell script for Calculator using select stament	04/01/2022			Prof. V.A. Sinha	
3	Perform a Biodata prepration using VIM editor from terminal	18/01/2022			Prof. V.A. Sinha	
4	Shell script to configure Samba File server in Ubuntu	01/02/2022			Prof. V.A. Sinha	
5	Write Shell script program to check whether given file is a directory or not.	08/02/2022			Prof. V.A. Sinha	
6	Write a shell script program to display list of users currently logged in.	22/02/2022			Prof. V.A. Sinha	
7	Write a shell script to assign file permission to given file / folder	08/03/2022			Prof. V.A. Sinha	
8	Write a shell script to display details of running process and threads in system	B1 - 14/03/2022	B2 - 15/03/2022	B3 - 17/03/2022	Prof. V.A. Sinha	
9	Write a Shell script to develop a Fibonacci series.	B1 - 21/03/2022	B2 - 22/03/2022	B3 - 24/03/2022	Prof. V.A. Sinha	
10	Write a Shell script to find the number of words character, words and lines in a file.	B1 - 28/03/2022	B2 - 29/03/2022	B3 - 31/03/2022	Prof. V.A. Sinha	

Signature of in-charge Faculty

Prof. Ram Meghe Institute of Technology & Research Badnera

Department of Master in Computer Application

Odd Semester AY:2021-2022 (Winter 21)

MCA I Year Semester I

Lesson Plan

Name Prof. S. S. Tayade.

ect Lab-Mathematics and Statistical Techniques.

Sr.No	Topics to be Covered	Date			Sign. of Faculty	Sign. of HOD
		B1	B2	B3		
1	Program for calculating Factorial using recursive function.	31-12-2021			S. S. Tayade	
2	Program for calculating permutation and combination.	7/1/2022			S. S. Tayade	
3	Program for calculating Matrix Addition	21-01-2022			S. S. Tayade	
4	Program for calculating Matrix Substraction.	28-01-2022			S. S. Tayade	
5	Program for calculating Arithematic Mean for Group Data And Individual Data	4/2/2022			S. S. Tayade	
6	Program For Calculating Harmonic Mean.	11/2/2022			S. S. Tayade	
7	Program For Calculating Geometric Mean.	14-02-2022			S. S. Tayade	
8	Revision Program for calculating Matrix Addition	21-02-2022			S. S. Tayade	
9	Rivision Program for calculating Matrix Substraction.	28-02-2022			S. S. Tayade	
10	Rivision Program For Calculating harmonic Mean.	4/3/2022			S. S. Tayade	
11	Rivision Program For Calculating Geometric Mean.	11/3/2022			S. S. Tayade	
12	program to find correlation coefficient Using Karl Pearson's.	17-03-2022	16-03-2022	14-03-2022	S. S. Tayade	
13	Rivision program to find correlation coefficient Using Karl Pearson's.	24-03-2022	23-03-2022	21-03-2022	S. S. Tayade	
14	program to find correlation coefficient Using SPEARMAN'S RANK	7/4/2022	06-04-2022	4/4/2022	S. S. Tayade	
15	Rivision program to find correlation coefficient Using SPEARMAN'S RANK.	12/04/2022	13-04-2022	11/4/2022	S. S. Tayade	
16	program to implement moving average method.	21-04-2022	20-04-2022	18-04-2022	S. S. Tayade	
17	program to implemented least square method.	28-04-2022	27-04-2022	25-04-2022	S. S. Tayade	

Tayade

Signature of in-charge Faculty

Prof. Ram Meghe Institute of Technology & Research , Badnera

P.G. Department of Computer Applications (M.C.A.)

Teaching Plan - MCA20105 Mathematics & Statistical Techniques

Submitted By - Prof. S. S. Tayade

Class - Ist Year First Sem

S. No.	Unit	Topic Name	*Month*	Week	Days
1	Unit-II	Permutations & Combinations: Factorial Notation, Fundamental Theorem	*December*	week 3	1
2		Definition of Permutations. Definition of Combinations			2
3		Simple examples of commercial application of permutations and combinations.			1
4		Elementary Probability Theory: Concept of random experiment/trial and possible outcomes			2
5		Sample Space and Discrete Sample Space		Week 4	1
6		Events their types			2
7		Algebra of Events			3
8		Mutually Exclusive and Exhaustive Events			4
9		Complimentary events			
10		Classical definition of Probability,conditional probability			
11	Unit-I	Algebraic view - vectors, matrices	*January*	Week 1	1
12		product of matrix & vector			2
13		rank, null space			3
14		solution of over-determined set of equations			4
15		pseudo- inverse		Week 2	1
16		Norms and spaces			2
17		Eigenvalues and eigenvectors.			3
18		Geometric view - vectors			4
19		distance, projections		Week 3	1
20		eigenvalue decomposition			2
21		Measures of central Tendency: Arithmetic mean, Weighted mean			3
22		Median, Mode			
23		Quartiles			

24	Unit-IV	Deciles and Percentiles	*February*	Week 4	4
25		Locating median and quartiles through Ogives			1
26		Histogram to locate mode and mean. Numerical problems on central tendency			2
27		Measures of dispersion: Range, Quartile deviation,			3
28		Mean deviation from mean		Week 1	1
29		Standard deviation and their coefficients			2
30		Numerical problems on Range, quartile deviation, mean deviation.			3
31	Unit-III	Functions and Derivatives		Week 2	1
32		Concept of real functions: constant function			2
33		linear function, xn, ex, ax, log x.			3
34		Demand, Supply,		Week 3	1
35		Total Revenue, Average Revenue, Total cost, Average cost and Profit function.			2
36		Equilibrium Point, Break-even point.			3
37		Derivatives of functions: Constant function, xn, ex, ax, log x.		Week 4	1
38		Rules of derivatives: Scalar multiplication			2
39		sum, difference, product			3
40		quotient (Statements only), simple problems.			4
41	Unit-V	Variance: Definition for grouped & ungrouped data	*March*	Week 1	1
42		co-efficient of Dispersion			2
43		co- efficient of variation		Week 2	1
44		Numerical problems on measures of dispersion.			2
45		Numerical problems on measures of dispersion.			3
46		Bivariate Linear Correlation			4
47		Scatter Diagram		Week 3	1
48		Computation of Karl Pearson's Coefficient of Correlation			2
49		Computation of Spearman's Rank Correlation Coefficient (case of repeated ranks upto 2 repetitions only)			3
50		Numerical problems on Bivariate Linear Correlation.			4
51		Bivariate Linear Regression:			1

52	Unit-VI	Finding Regression lines by method of least squares	*April*	Week 1	2
53		Properties of Regression Coefficients- i) r = √byxbxy			3
54		ii) ($\bar{x}$, $\bar{y}$) is the point of intersection of two regression lines			4
55		Numerical problems on Bivariate Linear Regression		Week 2	1
56		Time series : Definition of Time series & uses of time series			2
57		Components of Time series, Additive & multiplicative models			3
58		Methods of estimating trend by moving average method graphical method, semi-average method		Week 3	1
59		least square methods.			2
60		Numerical problems on Time Series			3

Tayade

Prof. S. S. Tayade