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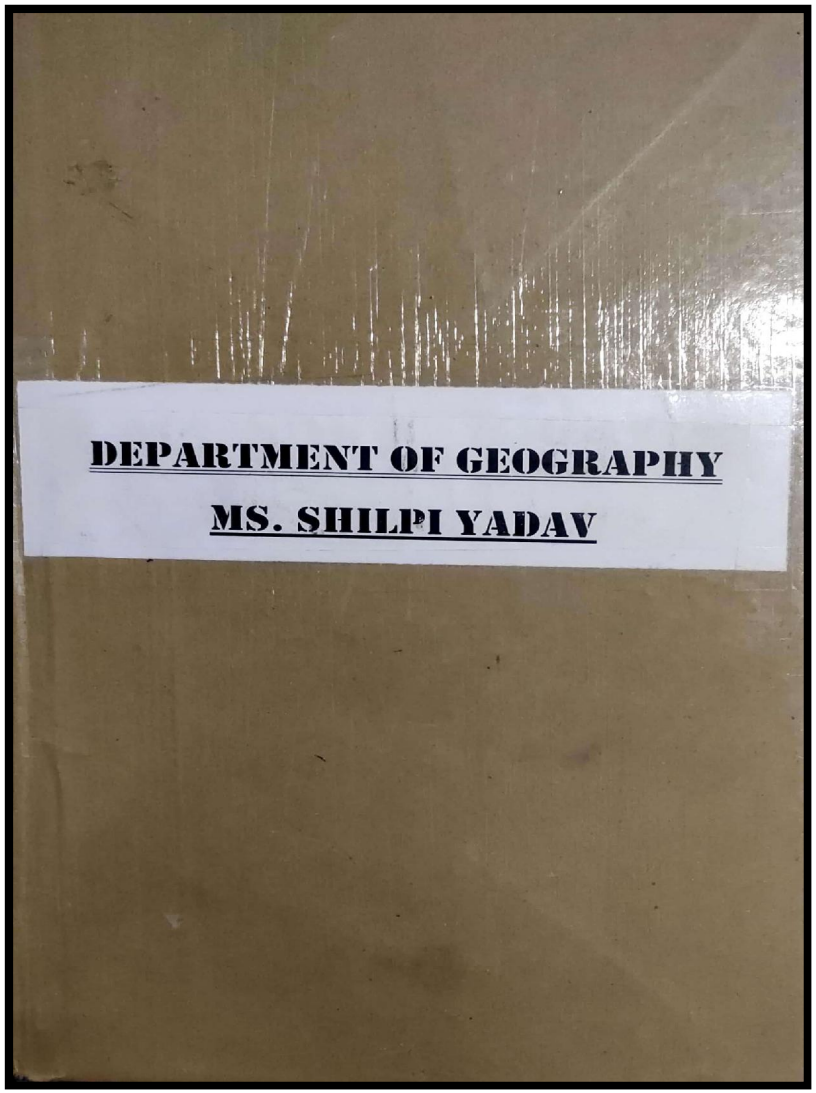

COURSE_PLAN_2018-19_MS_SHILPI_YADAV

SOPHIA GIRL'S COLLEGE, AJMER (*AUTONOMOUS*)

B.A SEMESTER I

GEOGRAPHY OF RAJASTHAN (PAPER II) (GEO-102)

Max. Marks : 75 (50Ext; 25 Int) **Min. Marks: 30(20 Ext;10 Int)** **Credit: 03**

COURSE PLAN

SEM/ Month	UNIT/TOPIC	Concepts/facts	Teaching Pedagogy	Learning Outcomes	Questions	Marks Weightage (%)
SEM I JULY	**UNIT I** Geological structure; Physiography; Climate: Climatic conditions, Climatic regions; Drainage: Rivers and Lakes;	Water divide of India, Windward and Leeward.	PPT, Chart, Maps, Quiz.	Classify and understand the physiographic divisions of Rajasthan.	*Knowledge Based* Elaborate the Physiographical features of Rajasthan. Write a note on desertification in Rajasthan. *Understanding Based* Discuss the factors affecting population density in Rajasthan. *Higher Order Thinking Skills Based* Justify the present distribution of power resources with the help of suitable map.	Knowledge--60 Understanding-20 Higher Order-20
	Soil: Classification and distribution of Soils; Animal Resource: Dairy Development; Drought and Famine, Desertification;	Badlands, Sand dunes, Soil profile.	Maps, Quiz, Diagrams.			
	Vegetation: Factors affecting, Types of forests; their conservation.	Climate change, saline soils.	Maps, Flow Charts.			
AUGUST	**UNIT II** Population: Qualitative and Quantitative aspects, Population Problems and Measures;	Sex ratios, Gender issues.	Diagrams, Tables and flow charts.	Enumerate the qualitative and quantitative aspects of population and determine the agricultural regions of Rajasthan.		
	Tribes of Rajasthan: Saharia, Meena, Bhils and Garasia, their problems and programmes for their development; Agriculture:	Social structure of tribes.	Diagrams, PPT's.			
	Major crops-Bajra, Wheat, Gram, Jowar, Maize, Barley, Cash crops: Sugar cane, Cotton, Oil seeds, Agricultural Regions of the State, Dry farming.	Dryland Farming, Water Logging.	Maps, Diagrams, Flip Learning.			
SEPTEMBER-OCTOBER	**UNIT III** Mineral Resources: Distribution of Metallic Minerals: Iron-ore, Zinc, Manganese, Lead, Silver, Copper, Tungsten.	Illegal mining, geological structure, rocks types.	through rock samples.	List the major metallic, non-metallic resources and correlate with industrial development of the state.		
	Non-Metallic: Gypsum, Mica, Manganese, Limestone, Marble; Power Resources- Coal, Petrol, Natural gas, Hydroelectricity, Wind, Atomic, Biogas etc., Problems and Measures;	Coke, charcoal, metamorphism, continental shelf, sustainable utilization.	PPT, Demonstration			
	Industrial development: Cotton textile, Cement and Stone Industry; Transport of Rajasthan.	Availability of Resources, Mineral extraction, Localization factors.	PPT, Case Studies, Flipped Classroom			

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SOPHIA GIRL'S COLLEGE, AJMER (*AUTONOMOUS*)
B.A SEMESTER I
PRACTICALS BASICS OF CARTOGRAHY (GEO-103)

Max. Marks: 50(40Ext; 10 Int) **Min Marks: 20(16 Ext;4 Int)** **Credits: 02** **Duration: 5 hrs**

COURSE PLAN

SEM/ Month	UNIT/TOPIC	Concepts/facts	Teaching Pedagogy	Learning Outcomes	Questions	Marks Weightage (%)
SEM I JULY	The nature and scope of cartography. Types of cartographic symbols and their uses: (a) Points (dots, proportional circles and spheres) (b) Line, (isopleths and flow lines) Areas (Choropleth) for representing population, agriculture, industry and transport data, land-use, cropping pattern, industries and transport etc.	Basic mathematics, Tables, Conversion Units	Exercises with Use of Wooden Geometry Box, Demonstration	To develop skills and competency regarding area analysis and map making with relief features and profiles.	*Knowledge Based* Practical File Work *Understanding Based* Lab exercises Draw a Plain Scale on R.F 1:50,000 *Higher Order Thinking Skills Based* Interpret and develop a Profile for the given region? Viva Voce	Knowledge--30 Understanding-50 Higher Order-20
AUGUST	Scales: Plain Linear, Statement - Diagonal and Comparative; Representative Fraction. Methods of showing relief- (hachures, shading, contours and layer tints)	Topographical understanding, Landform distribution	Demonstration with 3 D Models, Tracing Table			
SEPTEMBER-OCTOBER	Representation of different landforms by contours. Drawing of profiles: cross and long profiles, superimposed, composite and projected profiles and their relevance in landform mapping and analysis.	Slopes, Areal topographical interpretation	Demonstration and Lab exercises with Video Animations			

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B.A SEMESTER III

PRACTICAL: INTERPRETATION OF TOPOGRAPHICAL MAPS

(GEO-303)

Max. Marks: 50(40Ext; 10 Int) **Min Marks: 20(16 Ext;4 Int)** **Credits: 02** **Duration: 5 hrs**

COURSE PLAN

SEM/ Month	UNIT/TOPIC	Concepts/facts	Teaching Pedagogy	Learning Outcomes	Questions	Marks Weightage (%)
SEM I JULY	**Interpretation of Topographical Map.** a. Primary Information (About Indexing, latitude and longitude explanations and administrative setup)	Basic mathematics, Tables, Conversion Units	Exercises with Use of Wooden Geometry Box, Demonstration	Develop understanding of the Topographical landscapes in consonance to Survey of India Toposheets and asses their regional differentiation.	*Knowledge Based* Practical File Work *Understanding Based* Lab exercises Draw a Plain Scale on R.F 1:50,000 *Higher Order Thinking Skills Based* Interpret and develop a Profile for the given region? Viva Voce	Knowledge--30 Understanding-50 Higher Order-20
AUGUST	b. Arrangement and Identification of Toposheets of India. c. Use of Conventional signs and symbols; d. Methods of representing relief on map contours level colouring spot heights, benchmarks.	Topographical understanding, Landform distribution	Demonstration with 3 D Models, Tracing Table			
SEPTEMBER-OCTOBER	e. Identification of relief features on a map through contours – conical hill, plateau, ridge, v-shaped valley, escarpment, cliff, waterfall, types of slopes (uniform, undulating, convex and concave, gentle and steep); Interpretation of Relief, Drainage, Settlements, Land-use, Vegetation and Transport network on Toposheets f. Drawing of a cross-section or a profile from.	Slopes, Areal topographical interpretation	Demonstration and Lab exercises with Video Animations			

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B.A SEMESTER V

REGIONAL GEOGRAPHY OF THE WORLD: (USA, France, Brazil) (PAPER I) (GEO-502)

Max. Marks : 75 (50Ext; 25 Int) Min. Marks: 30(20 Ext;10 Int) Credit: 03 Duration: $2^{1/2}$ hrs

COURSE PLAN

SEM/ Month	UNIT/TOPIC	Concepts/facts	Teaching Pedagogy	Learning Outcomes	Questions	Marks Distribution
SEM I JULY	**UNIT I** USA: Physiography, Drainage, Climate, Natural Vegetation, Agriculture Belts, Soil, Minerals,	Polar winds, Gulf stream,	PPT, Chart, Maps, Visual Models	Develop geographical understanding of USA and analyze its economic development.	*Knowledge Based* 1. Illustrate the physiographic features of USA. 2. Discuss the minerals distribution of France and USA.	Knowledge--40
	Power: Coal and Petrol, Industries: Iron and Steel and Engineering,	Inland waterway, Geology of rocks.	Match the following, Quiz,			
	Spatial distribution of Population and its economic development, Infrastructural development in terms of transport network.	Ecumene, Localisation factors.	Maps, Flow Charts			
AUGUST	**UNIT II** France: Physiography, Drainage, Climate, Natural Vegetation, Minerals,	Temperate cyclones, Geology of rocks.	Diagrams, Models, demonstration through Globe	Develop geographical understanding of France and analyze its economic development.	*Understanding Based* 1. Illustrate the climate of France. 2. Discuss the population distribution of USA.	Understanding-35
	Power resources: Coal and Petrol, Industrial Regions: Paris Basin,	Extraction of resources.	Diagrams, Models, demonstration through Globe			
	Spatial distribution of Population and its economic development.	Optimum population, migration.	Maps, Diagrams, Models, Demonstration			
SEPTEMBER-OCTOBER	**UNIT III** Brazil: Physiography, Drainage-Amazon and Oronico basin, Climate, Natural Vegetation,	Grasslands, Forest ecosystem, ocean currents near the coastal regions.	Diagrams, Models, demonstration through Globe	Develop geographical understanding of Brazil and analyze its economic development.	*Higher Order Thinking Skills Based* 1. Compare the climatic features of Brazil and USA. 2. Discuss the relevance of agricultural produce in Brazil.	Higher Order-25
	Agriculture-Plantation Crops, Minerals, Power resources, Industries,	agro-forestry, Geological structure.	PPT, Demonstration			
	Spatial distribution of Population, Economic development and Urbanization.	Ecumene, Migration.	PPT, Case Studies, Flipped Classroom			

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M. A/M.Sc. GEOGRAPHY (Previous) SEMESTER I

GEOGRAPHICAL THOUGHT (GEOM-101)

Max Marks: 100(70Ext; 30 Int) Min. Marks: 40 (28 Ext;12 Int)

Credit: 06 Duration: 03 hrs.

COURSE PLAN

SEM/ Month	UNIT/TOPIC	Concepts /facts	Teaching Pedagogy	Learning Outcomes	Questions	Marks Weightage (%)
SEM I JULY	**UNIT I** The nature and scope of geography; Elements of geography: location on the surface of the Earth, physical conditions, forms of life and human responses;	Origin of the subject, environmental determinism.	PPT, Diagrams, Flow Charts.	Recognize the elements of Geography and trace the evolution of the subject.	*Knowledge Based* Summarize the elements of geography.	
	Development of modern geography in India;	Latest tools and techniques.	Flipped Classroom, Diagrams.			
	Geography of Vedic age and Geography of Purana: Dwipa, Ocean, River and Mountain systems.	Vedas & Upnishadas	Maps, Flow Charts, PPT.		*Understanding Based* Examine the contributions of Arab Geographers.	Knowledge-- 40 Understanding
AUGUST	**UNIT II** Ancient classical Geography: Contribution of Greek and Roman; Dark Age and contribution of Arab Geographers;	Evolution of Mankind.	Charts, Demonstration through Maps.	Discover and develop understanding about the contributions of various schools of Geographical Thought.		
	Late medieval Geography: Age of travels, exploration and discoveries; German school of Geography: Contribution of Humboldt, Ritter and Ratzel;	Geographical understanding of countries.	PPT, Maps, Flow Charts			
	School of French Geography: Contribution of Blache and Brunhes; British and American school of Geography: Contribution of Mackinder, Herbertson, Miss Semple, Huntington and Davis.	Geographical understanding of countries.	Diagrams, Charts, Demonstration through Maps.		*Higher Order Thinking Skills Based* Elaborate the concept of Dualism in Geography.	-30 Higher Order- 30
SEPTEMBER-OCTOBER	**UNIT III** Dualism in Geography: Man-environment relationships (Determinism, Possibilism and Concept of Neo-determinism), Physical and Human, Systematic and Regional;	Ecological balance, forces of nature.	Flipped Classroom, PPT, Class discussions.	Identify and focus on the various geographical concept and dichotomy in the subject.		
	Quantitative revolution in geography; Behavioural geography;	Development of the subject.	PPT, Class discussions.			
	Major Concepts in Geography: Terrestrial unity, Pragmatism, Idealism, Positivism, Radicalism, Areal differentiation.	Human ideologies.	PPT, Flipped Classroom			

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M. A/M.Sc GEOGRAPHY (Final) SEMESTER III

AGRICULTURAL GEOGRAPHY (a) (GEOM-301)

Max Marks: 100(70Ext; 30 Int) Min. Marks: 40(28 Ext;12 Int) Credits: 06 Duration: 03 hrs

COURSE PLAN

SEM/ Month	UNIT/TOPIC	Concepts/facts	Teaching Pedagogy	Learning Outcomes	Questions	Marks Weightage (%)
SEM I JULY	**UNIT I** Nature and scope; development of agricultural geography;	Origin and dispersal of agriculture.	PPT, Chart, Maps, Visual 3- D Models	Trace the development of agricultural geography as a subject and analyze the sources of agricultural data.	*Knowledge Based* Summarize the development of agricultural geography. *Understanding Based* Examine the determinants of agricultural land use. *Higher Order Thinking Skills Based* Discuss the problems and solutions of contemporary Issues in Agriculture.	Knowledge--30 Understanding-40 Higher Order-30
	Approaches to the study of agricultural geography: Origin and dispersal of agriculture;	Agricultural regionalisation.	Match the following, Quiz,			
	Sources of agricultural data; Determinants of agricultural land use - Physical, economic, social, and technological.	agricultural productivity.	Maps, Flow Charts			
AUGUST	**UNIT II** Agricultural concepts and their measurements: cropping pattern, crop concentration, crop productivity,	Cropping efficiency.	Diagrams, Models, demonstration through Globe	Distinguish agricultural concepts and theories for the classification of agricultural regions.		
	crop diversification, crop combination regions and agricultural development; Theories of agricultural location based on several multi-dimensioned factors:	Locational Rent, isostate	Diagrams, Models,			
	Von Thunen's theory of agricultural location and its recent modifications; Whittlesey's classification of agricultural regions.	topography and climate.	Maps, Diagrams, Models,			
SEPTEMBER-OCTOBER	**UNIT III** Land use and land capability; Green Revolution and White Revolution; nutritional index.	Land productivity.	Diagrams, Models,	Examine the contemporary issues and discuss the agricultural policies of India.		
	Agricultural Policy in India. Contemporary Issues: Food security, drought and food security,	Regional planning and management.	PPT, Demonstration			
	food aid programmes; environmental degradation.	Environmental concerns.	PPT, Case Studies,			

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M. A/M.Sc GEOGRAPHY (Final) SEMESTER III
PRACTICAL GEOGRAPHY: REMOTE SENSING TECHNIQUES (GEOM-305)
Max Marks: 100(70Ext; 30 Int) Min. Marks: 40(28 Ext;12 Int) Credit: 06 Duration: 05 hrs
COURSE PLAN

SEM/ Month	UNIT/TOPIC	Concepts/facts	Teaching Pedagogy	Learning Outcomes	Questions	Marks Weightage (%)
SEM I JULY	**UNIT I** Historical development of remote sensing as a technology-Relevance of remote sensing in Geography-.	Electromagnetic radiation, Concept of remote sensing.	PPT, Chart, Maps, Visual 3- D Models	Build a functional understanding of basic remote sensing concepts and applications. Demonstrate GIS techniques of processing remotely sensed data and understand data acquisition, storage and its synthesis.	*Knowledge Based* Discuss the functional understanding of basic remote sensing concepts and applications. *Understanding Based* Illustrate the GIS techniques of processing remotely sensed data. *Higher Order Thinking Skills Based* Demonstrate orbital characteristics and data products.	Knowledge--30 Understanding-40 Higher Order-30
	Concepts and basics: Energy source, energy and radiation principles, energy interactions in the atmosphere and earth surface features,	Energy source, energy and radiation principles	Match the following, Quiz, Demonstration			
	remote sensing systems: platforms, sensors and radiation records	Electromagnetic radiation,	Maps, Flow Charts			
AUGUST	**UNIT II** Satellite Remote Sensing: platforms-LANDSAT, SPOT, NOAAAVHRR, RADARSAT, IRS, INSAT:	Electromagnetic radiation, Concept of remote sensing	Diagrams, Models, demonstration through Globe			
	principles and geometry of scanners and CCD arrays, orbital characteristics and data products-	Satellites and importance.	Diagrams, Models.			
	MSS, TM, LISS I & II, SPOTPLA & MLA, SLAR.	Earth's orbit, polar and sun-synchronous.	Maps, Diagrams, Models, Demonstration			
SEPTEMBER-OCTOBER	**UNIT III** Image Processing: types of imagery, techniques of visual interpretation, ground verification, transfer of interpreted thematic information to base maps-	supervised and unsupervised, classification	Diagrams, Video clips.			
	digital processing: rectification and restoration, image enhancement, contrast manipulation, classification: supervised and unsupervised, post-classification analysis and accuracy assessment,.	maps-digital processing	PPT, Demonstration			
	microwave sensing: interpretation of SLAR imageries, elements of passive microwave sensing.	visual interpretation	PPT, Case Studies, Flipped Classroom			

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B.A SEMESTER II

PHYSICAL GEOGRAPHY –II PAPER I (GEO-201) (Climatology and Oceanography)

Max. Marks : 75 (50Ext; 25 Int) **Min. Marks: 30(20 Ext;10 Int)** **Credit: 03** **Duration: $2^{1/2}$ hrs**

COURSE PLAN

SEM/ Month	UNIT/TOPIC	Concepts/facts	Teaching Pedagogy	Learning Outcomes	Questions	Marks Distribution
SEM II . DEC	Definition and significance of Climatology; Composition and structure of the atmosphere;	Concept of Climate and Weather,	PPT, Chart, Maps, Visual 3- D Models	Understand the meaning and significance of climatology.	*Knowledge Based* 1. Illustrate the composition and structure of atmosphere. 2. Distinguish between planetary and periodic winds.	Knowledge—55
	Atmospheric Temperature: Vertical and Horizontal distribution of temperature;	State Conversions, Relationship between Temperature and pressure	Match the following, Quiz, Demonstration			Understanding-30
	Atmospheric pressure and Pressure belts; Winds: Planetary, Periodic and Local winds; Hydrological cycle.	Global Climatic Zones	Maps, Flow Charts			
. JAN	**UNIT II** Air masses; Fronts: Concept, classification and properties; Cyclones: Tropical and Temperate cyclones;	Atmospheric Circulations	Diagrams, Models, demonstration through Globe.	Explain various climatic phenomenon and deduce measures to control global warming.	*Understanding Based* 1. Discuss the horizontal and vertical distribution of temperature. 2. Define cyclones and their types.	Higher Order-15
	Climatic classification of Koppen's and Thornwait's Role of Climate in human life;	Pressure circulation, Western Disturbances.	Diagrams, Models, demonstration through Globe.			
	Atmospheric pollution and Global warming – general causes, consequences and measures of control.	Ozone depletion, Greenhouse gases.	Maps, Diagrams, Models, Demonstration			
FEB To MARCH	**UNIT III** Definition and significance of oceanography; Surface configuration of the ocean floor; Relief of Atlantic, Pacific and Indian Oceans;	Plate movements, Formation of Trenches.	PPT, Maps and diagrams.	Define oceanography and elaborate the significance	*Higher Order Thinking Skills Based* 1. Explain the origin and development of coral reefs. 2. Discuss the importance ocean currents.	
	Distribution of Temperature; Salinity of oceans and seas; Circulation of oceanic waters: Tides and Currents: Currents of the Atlantic, Pacific and Indian oceans;	Factors affecting salinity, Fishing Grounds.	PPT, Demonstration			
	Marine deposits and coral reefs; Oceans as storehouse of resources for the future.	Great Barrier Reef,	PPT, Flipped Classroom.			

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B.A SEMESTER VI

EVNIRONMENTAL GEOGRAPHY - (PAPER II) (GEO-601)

Max. Marks : 75 (50Ext; 25 Int) **Min. Marks: 30(20 Ext;10 Int)** **Credit: 03** **Duration: $2^{1/2}$ hrs**

COURSE PLAN

SEM/ Month	UNIT/TOPIC	Concepts/facts	Teaching Pedagogy	Learning Outcomes	Questions	Marks Distribution
SEM VI DEC	**UNIT I** Ecosystem: Concept, Types: Biotic and Non-Biotic, Structure and Function of an ecosystem:	Biomes, Ecological succession.	PPT, Chart, Maps, Visual 3- D Models	Classify the ecosystems and energy flow.	*Knowledge Based* 1. Define ecosystem and its functions. 2. Define biodiversity and its exploitation.	
	Forest ecosystem, Grassland ecosystem, Desert ecosystem, Aquatic ecosystems;	Salinity, latitudinal division of continents.	Match the following, Quiz,			
	Energy flow in the ecosystem, Food chains, Food webs and Energy pyramids.	Bio-accumulation and remediation.	Maps, Flow Charts		*Understanding Based* 1. Explain the types of environmental pollution. 2. Classify the different Environment protection Acts.	Knowle
JAN	**UNIT II** Biodiversity: Definition, Concept, In-situ and Ex-situ, Conservation;	Biodiversity hotspots, succession and development of plants.	Diagrams, Models, demonstration through Globe	Prioritize the importance and the need to conserve biodiversity.		dge--40
	Environmental Pollution: Definition, Cause, Types :- Air pollution, Water pollution, Soil pollution,	Sustainable Development Goals.	Diagrams, Models, demonstration through Globe			Underst
	Marine pollution, Noise pollution, Nuclear hazards and Control measures.	Sustainable Development Goals, Government policies.	Maps, Diagrams, Models, Demonstration			anding-
FEB TO MARCH	**UNIT III** Environmental Ethics : Issues and possible solutions, Climate change,	International environmental agreements.	Demonstration through rock samples	Prioritize the importance environmental ethics.	*Higher Order Thinking Skills Based* 1. Prioritize the importance environmental ethics. 2. Critically evaluate the nuclear hazards and their impacts.	35
	global warming, acid rain, ozone layer depletion, nuclear accidents; Environmental Protection Act,	Government policies, Agenda-21, Kyoto Protocol.	PPT, Demonstration			Higher Order- 25
	Issues involved in enforcement of environmental legislation, Public awareness.	Social-corporate responsibility.	PPT, Case Studies, Flipped Classroom			

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M. A/M.Sc GEOGRAPHY SEMESTER II

CLIMATOLOGY AND OCEANOGRAPHY (GEOM-201)

Max Marks: 100(70Ext; 30 Int) **Min. Marks: 40(28 Ext;12 Int)**

Credit: 06 **Duration: 03 hrs**

COURSE PLAN

SEM/ Month	UNIT/TOPIC	Concepts/facts	Teaching Pedagogy	Learning Outcomes	Questions	Marks Weightage (%)
SEM II DEC	**UNIT I** Nature and Scope of Climatology; Composition and Structure of the atmosphere;	Concept of climate and weather.	PPT, Chart, Maps, Visual 3- D Models	Distinguish the various climatic phenomenons and explain their global to regional distribution.	*Knowledge Based* Describe the structure and composition of the atmosphere.	Knowledge
	Insolation; Heat Budget; Vertical and Horizontal distribution of temperature;	Aphelion and perihelion, revolution chart.	Demonstration by models.			
	Atmospheric pressure; Winds: Planetary, Periodic and Local winds.	Land and water distribution, rotation and revolution.	Maps, Flow Charts			
JAN	**UNIT II** Atmospheric moisture: Absolute and Relative Humidity; Types of Clouds and Precipitation;	Composition of the earth, layers of atmosphere.	Diagrams, Models, demonstration through Globe	Classify climatic regions of the world and observe dynamics of cyclones.	*Understanding Based* Compare the tropical and temperate cyclones.	--40
	Air Masses and Fronts: Concept, Classification and properties. Atmospheric Disturbances: Tropical and Temperate cyclones;	Global wind circulation.	Diagrams, Models, demonstration through Globe			Understanding-30
	Climatic classification of Koppen and Thornthwaite; Major climates of the World.	Insolation, air temperature	Maps, Diagrams, Models,			
FEB TO MARCH	**UNIT III** Nature and scope of Oceanography; Major features of ocean basins;	Hypsometric curve,	Demonstration through rock samples	Sketch the major features of ocean basins and critically evaluate the distribution of temperature and salinity in oceans.	*Higher Order Thinking Skills Based* Evaluate the theories depicting presence of coral reefs.	Higher Order-30
	Ocean Temperature and Distribution; Salinity; currents; Tides: Types and Theories (Progressive Wave Theory and Newton Equilibrium Theory);	Ocean bottom relief, gravitation and buoyancy.	PPT, Demonstration			
	Coral reefs: Types and Theories (Darwin, Daly and Murray); Marine Resources; Law of the Sea.	Marine life, Ocean bottom relief	PPT, Flipped classroom			

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M. A/M.Sc GEOGRAPHY SEMESTER II

PRACTICAL GEOGRAPHY: AIR PHOTO INTERPRETATION (GEOM-205)

Max Marks: 100(70Ext; 30 Int) Min. Marks: 40 (28 Ext;12 Int) Credits: 06 Duration: 05 hrs

COURSE PLAN

SEM/ Month	UNIT/TOPIC	Concepts/facts	Teaching Pedagogy	Learning Outcomes	Questions	Marks Weightage (%)
SEM II DEC	Air Photos and Photogrammetry: Elements of photographic system: types, scales and ground coverage, resolution, radiometric characteristics, films, filters, aerial cameras, film exposures	Image interpretation elements. Flight planning.	PPT, Chart, Maps, Visual 3-D Models Match the following, Maps, Flow Charts	To develop knowledge, skills and competency to use stereoscopes, GPS for spatial mapping and referencing	*Knowledge Based* Discuss the elements of photographic system. *Understanding Based* Explain the Geometric fundamentals of photogrammetry *Higher Order Thinking Skills Based* Summarize the importance of GPS Sureying.	Knowledge--60 Understanding-30 Higher Order-10
JAN	Geometric fundamentals of photogrammetry: Elements of vertical photographs, relief displacement, image parallax, stereoscopic,	Concept of Ortho-photographs. Image Interpretation Elements Stereoscopic Vision	Diagrams, Models, demonstration through Globe Diagrams, Models, demonstration through Globe Maps, Diagrams, Models, Demonstration			
FEB TO MARCH	ortho photos air photo interpretation: shape, size, pattern, tone, texture, shadows, and site;	Image interpretation elements. Flight planning.	Demonstration through rock samples PPT, Demonstration PPT, Case Studies, Flipped Classroom			

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M. A/M.Sc GEOGRAPHY (Final) SEMESTER IV

GEOGRAPHY OF SOUTH ASIA (GEOM-401)

Max Marks: 100(70Ext; 30 Int) Min. Marks: 40(28 Ext;12 Int) Credit: 06 Duration: 03 hrs

COURSE PLAN

SEM/ Month	UNIT/TOPIC	Concepts/facts	Teaching Pedagogy	Learning Outcomes	Questions	Marks Weightage (%)
SEM IV DEC	**UNIT I** Geographical Realm of South Asia, Homogeneity and Diversity, Study of Pakistan-Geographical and political units,	Geographical understanding of the study area.	PPT, Chart, Maps, Visual 3- D Models	Develop geographical understanding of Pakistan and discuss its political relations with South Asian countries.	*Knowledge Based* Discuss the geographical understanding of Pakistan and discuss its political relations with South Asian countries. *Understanding Based* Elaborate the climatic aspects of Bangladesh and Nepal. *Higher Order Thinking Skills Based* Illustrate the Geographical and political units of India and its neighbours.	Knowledge–30 Understanding-30 Higher Order–40
	Climate and climatic regions, Vegetation, Agriculture, Livestock,	Tropical cyclones, flooding	Match the following, Quiz,			
	Mineral Resources, Power Resources, Industries, Trade, Population, Political relations.	Resource potential.	Maps, Flow Charts			
JAN	**UNIT II** Study of Bangladesh -Geographical and political units, Climate and climatic regions,	Geographical understanding of the study area.	Diagrams, Models,	Develop geographical understanding of Bangladesh and discuss its political relations with South Asian countries.		
	Vegetation, Agriculture, Livestock, Mineral Resources,	Soils, Geology of land	Diagrams, Models,			
	Power Resources, Industries, Trade, Population, Political relations.	Understanding of resource potential.	Maps, Diagrams, Models,			
FEB TO MARCH	**UNIT III** Study of Nepal, Srilanka, Bhutan, Maldives-Geographical and political units,	Geographical understanding of the study area.	PPT, Case Studies,	Develop geographical understanding of Nepal, Sri Lanka, Bhutan, and Maldives and discuss their political relations with South Asian countries.		
	Climate and climatic regions, Vegetation, Agriculture, Livestock,	Temperate winds, Temperate inversion	PPT, Demonstratio			
	Mineral Resources, Power Resources, Industries, Trade, Population, Political relations.	Understanding of resource potential.	PPT, Case Studies,			

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M. A/M.Sc GEOGRAPHY (Final)
SEMESTER IV
PRACTICAL GEOGRAPHY: GEOGRAPHIC INFORMATION SYSTEM APPLICATION (GEOM-405)

Max. Marks: 100(70Ext; 30 Int) **Min. Marks: 40(28 Ext;12 Int)**

COURSE PLAN

SEM/ Month	UNIT/TOPIC	Concepts/facts	Teaching Pedagogy	Learning Outcomes	Questions	Marks Weightage (%)
SEM IV DEC	**UNIT I** Spatial Science: Geography as a spatial science, maps and spatial information, dynamics of spatial information, elements of information technology, geographic objects and their relations-definition and development of GIS, computer environment for GIS.	Elements of Geography	PPT, Chart, Maps, Visual 3- D Models	Demonstrate proficiency in integrated geographical knowledge using geographical research tools including Spatial Statistics, Cartography, Remote Sensing, GIS and GPS.	*Knowledge Based* Discuss the elements of information technology.	
	Spatial Data: Elements of spatial data; data sources: primary and secondary, census and sample-data;	GIS, environment for GIS.	Match the following, Quiz,		*Understanding Based* Summarize the Elements of spatial data.	Knowledge--30
	quality and error variations-raster and vector data structures data conversion-comparison of raster and vector databases-methods of spatial interpolation-	raster and vector databases	Maps, Flow Charts			
JAN	**UNIT II** GIS data formats for the computer environment. Elements of GIS: Data capture-verification and preprocessing- manipulation,.	Database Management Systems	Diagrams, Models, Globe		*Higher Order Skill* Illustrate applications of GIS in Land Information System.	Understanding- 30
	data storage and maintenance of databases-Database Management Systems: types and merits and demerits-data	neighbourhood operations	Diagrams, Models,			
	analysis (integrated analysis of spatial and attribute data, overlay analysis, neighbourhood operations and connectivity functions) and spatial modeling-output format and generation	GIS-Digital Elevation Models	Maps, Diagrams, Models,			
FEB TO MARCH	**UNIT III** GIS Technology: Coordinate system-basic principles of cartography and computer assisted cartography for GIS-remote sensing data as a data source for GIS and integration of GIS and Remote Sensing-GPS and GIS: technology, data generation and limitations-visualization in GIS-Digital Elevation Models (DEM and TINS).	Decision Support System	Diagrams, Models,			
	GIS-Application: GIS as a Decision Support System-expert system for GIS-basic flow chart for GIS application-GIS standards,	GIS policy application	PPT,			Higher Order 40
	legal system and national GIS policy application of GIS in Land Information System, Urban Management, Environmental Management and Emergency Response System.	Elements of GIS	PPT			

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