

Government College For Women, Mahendragarh, Haryana, 123029

Department of Geography

Name Of The Extension Leturer : Mrs.Manju Yadav

Class : M.Sc. Semester III 18 Weeks (22 July to 24 Nov.): GEOG303

Remote Sensing

Session : 2024-25

Subject Lesson Plan:

Week 1 Aerial photography: History, Definition, advantages and limitations; Elements of photographic systems- aerial

Week 2 camera and films; Aerial photographs: Types, scale and resolution; Geometric properties of single vertical aerial

Week 3 photograph, Mirror Stereoscope and Stereoscopic vision; Stereoscopic parallax and relief displacement; Image, Interpretation: types of images- Panchromatic, False and True colour combination and elements of image

Week 4 Remote sensing- definition, scope and development; Electromagnetic radiation and spectrum; Black body

Week 5 radiation and Kirchhoff's Law; Interaction of EMR with atmosphere and Earth's surface features, Atmospheric

Week 6 windows; Orbits: Geo-stationary and sun synchronous; Remote Platforms and sensors; Resolution: Spatial, Radiometric and temporal

Week 7 Active and Passive remote sensing; Concept and principal of microwave remote sensing: platforms and sensor

Week 8 Synthetic Aperture Radar (SAR), Hyper Spectral Remote sensing; Indian Space Programmes and remote sensing missions

Week 9 Introduction to digital image processing: digital images and data formats; Image restoration: radiometric and

Week 10 geometric corrections; Introduction to contrast stretching techniques; Methods of classification: supervised and

Week 11 unsupervised classifications, accuracy of classified maps and recent trends in digital image processing.

Week 12 Assignment & Test.

Week 13 Assignment & Test.

Week 14 Assignment & Test.

Week 15- Repetition & Problem Solving...

Week 16- Repetition & Problem Solving...

Week 17- Repetition & Problem Solving...

Week 18- Repetition & Problem Solving...

Department of Geography

Name Of The Extension Leturer : Mrs.Manju Yadav

Class : M.Sc. - Semester I

Session : 2024-25

Subject Lesson Plan: 17Weeks (7 August to 30 Nov.): 24L6.0-GEO-101 Fundamentals of Geomorphology

Week 1 Nature and Development of Geomorphology 2. Fundamental concepts in Geomorphology (given by Thornbury)

Week 2 Geological Time Scale . Convection current theory,

Week 3 Sea floor spreading, Geosynclines, Isostasy, Continental drift and Plate tectonic.

Week 4 Endogenetic Processes: Earth quakes, Volcanic, Fault and Folds

Week 5 Exogenetic Processes: Erosion, Weathering and Mass wasting

Week 6 Fluvial, Glacial, Aeolian, Waves and Karst: nature, processes and landform

Week 7 Slope processes and Models of slope development: Davis, Penk, King, Wood and Strahler

Week 8 Applied Geomorphology: role of geomorphology in environmental management; accelerated erosion and

Week 9 sedimentation.

Week 10 Applications of geomorphology in Landuse, construction of large dams, and urban development.

Week 11 Assignment & Test.

Week 12 Assignment & Test.

Week 13 Assignment & Test.

Week 14 Assignment & Test.

Week 15- Repetition & Problem Solving...

Week 16- Repetition & Problem Solving...

Week 17- Repetition & Problem Solving...

Department of Geography

Name Of The Extension Leturer : Mrs.Manju Yadav

Class : B.Sc. - Semester I

Session : 2024-25

Subject Lesson Plan: 17Weeks (1 August to 30 Nov.): 24L4.5-GEO-103General Geography of Haryana

Week 1 Physiography, relief and climate of Haryana.

Week 2 Drainage, soils and natural vegetation.

Week 3. Agriculture: cropping pattern and challenges.

Week 4 Major industries and industrial centres of Haryana.

Week 5 Population: distribution, density and growth.

Week 6 Population composition: structure and literacy

Week 7 Pattern of trade and transport.

Week 8 Cultural regions of Haryana.

Week 9 Repetition & Problem Solving...

Week 10 Repetition & Problem Solving...

Week 11 Assignment & Test.

Week 12 Assignment & Test.

Week 13 Assignment & Test.

Week 14 Assignment & Test.

Week 15- Repetition & Problem Solving...

Week 16- Repetition & Problem Solving...

Week 17- Repetition & Problem Solving...

Department of Geography

Name Of The Extension Leturer : Mrs.Manju Yadav

Class : B.A. - Semester I

Session : 2024-25

Subject Lesson Plan: 17Weeks (1 August to 30 Nov.): 24L4.5-GEO-101 Physical Geography

Week 1 Interior of the earth, geological time scale, rock their types.

Week 2 Theory of isostasy, continental drift and plate tectonic;

Week 3. earthquakes and volcanoes.

Week 4 Degradational processes: weathering, mass wasting and resultant landforms.

Week 5 Landforms generated by following geomorphic agents

Week 6 river, under-ground water, wind and glacier.

Week 7 Weather and climate: Atmosphere-composition and structure.

Week 8 . Atmospheric temperature, pressure and moisture: measurement and distribution.

Week 9 Surface configuration of ocean floors: surface relief of the Pacific, Atlantic and Indian Ocean.

Week 10 Circulation of oceanic waters: current of the Pacific Atlantic and Indian Ocean.

Week 11Assignment & Test.

Week 12 Assignment & Test.

Week 13 Assignment & Test.

Week 14 Assignment & Test.

Week 15- Repetition & Problem Solving...

Week 16- Repetition & Problem Solving...

Week 17- Repetition & Problem Solving...

Department of Geography

Name Of The Extension Leturer : Mrs.Manju Yadav

Class : B.A. - Semester I Practical

Session : 2024-25

Subject Lesson Plan: 17Weeks (1 August to 30 Nov.): 24L4.5-GEO-103General Geography of Haryana

Week 1 Identification and collection of rock samples: granite, basalt, laterite, limestone, shale, sandstone, conglomerate, slate, phyllite, schist, gneiss, quartzite (1 exercise)

Week 2. Extraction of physiographic information from Survey of India 1:50000 topographical maps of mountain,

Week 3 plateau and plain regions (2 exercises).

Week 4. Measurement of weather elements using analogue instruments: temperature (maximum, minimum and mean) relative humidity, rainfall and preparation of climograph,

Week 5. hythergraph and hyetograph (3 exercises).

Week 6 Interpretation of a daily weather map of India:

Week 7. Pre-Monsoon, Monsoon and Post-Monsoon (2 exercise)

Week 8 Repetition & Problem Solving...

Week 9 Repetition & Problem Solving...

Week 10 Repetition & Problem Solving...

Week 11Assignment & Test.

Week 12 Assignment & Test.

Week 13 Assignment & Test.

Week 14 Assignment & Test.

Week 15- Repetition & Problem Solving...

Week 16- Repetition & Problem Solving...

Week 17- Repetition & Problem Solving...

Department of Geography

Name Of The Extension Leturer : Mrs.Manju Yadav

Class : B.A. - Semester V Practical

Session : 2024-25

Subject Lesson Plan: 18 Weeks (22 July to 24 Nov.): Paper 302 Distribution Maps and Diagrams (Practical)

Week 1

Principal of map design and layout

Week 2 Symbolization: point, line and area symbol

Week 3 Lettering and toponomy

Week 4 Mechanics of map construction

Week 5 Distribution maps

Week 6 (i) Qualitative distribution maps

- Choroschematic maps- 1 Exercise

Week 7 Chorochromatic maps- 2 Exercise

(ii) Quantitative distribution Maps

Week 8

Isopleth maps-3 Exercises

- Choropleth maps-3 Exercises

Week 9

Dot maps-3 Exercises

Week 10 Diagrammatic maps- 3 Exercises.

Week 11 Diagrammatic maps- 3 Exercises.

Week 12 Diagrammatic maps- 3 Exercises.

Week 13 Prismatic Compass Survey – 2 Exercises.

Week 14 Prismatic Compass Survey – 2 Exercises.

Week 15- Repetition & Problem Solving...

Week 16- Repetition & Problem Solving...

Week 17- Repetition & Problem Solving...

Week 18- Repetition & Problem Solving...