# Lesson Plan

## Name of Assistant Professor: Madhu Kumari

## Class: B.A. III sem

## Session – 2023-24

## Paper: Physical Geography-II (Geography)

| **Month-July** |
|---|
| Weather and Climate; Origin, Composition and Structure of Atmosphere.<br>Test and revision |

| **Month-August** |
|---|
| Insolation,Global Heat Budget,Horizontal and Vertical Distribution of Temperature,inversion of Temperature.<br>Atmospheric Pressure-Measurement and Distribution,Pressure Belts,Planetary winds,Monsoon,Jet Stream EL NINO-La Nina Phenomenon and Local winds.<br>Humidity-Measurement and Variables,Elevation, Condensation, forms and types and distribution,hydrological cycle.<br>Test and Revision |

| **Month-October** |
|---|
| Configuration of oceanic floors and surface relief of Pacific, Atlantic and Indian oceans; Temperature and salinity of oceans.<br>Test and Revision |

| **Month-November** |
|---|
| Tides, Waves and Oceanic currents; Circulation in Pacific, Atlantic and<br>Indian oceans; Oceanic resources.<br>Test and Revision |

# Lesson plan

**Name of Assistant/Associate Professor- Madhu Kumari**

**Class - B.A. 4th Sem**

**Subject- Geography**

**Paper 203: Human Geography**

**Session- 2023-2024**

| Months | Contents |
|---|---|
| January | Nature and scope of Human Geography, Branches and Approaches |
| | Division of Mankind, concept of men environment relation |
| February | Human adaptation to the environment: Eskimos, Bushmans, Gonds |
| | Meaning, nature and components of resources, |
| | Classification and Distribution of Resources |
| | Utilization and conservation of Resources |
| March | Distribution and density of world population, population growth, |
| | fertility and mortality patterns. |
| | Concept of over, under and optimum population |
| | Population theories: Malthus, Ricardo and Marx. |
| April | Rural settlements: Meaning, classification and types. |
| | Urban settlements: Origin, classification and functions of towns. |
| | Population pressure, Environmental Degradation, |

**Madhu Kumari**

**Department of Geography**

**GCW, Narnaul**

# Lesson Plan

## Name of Assistant Professor: Madhu Kumari

## Class: M.Sc (P)

## Session – 2023-24

## Paper: Oceanography (Geography)

| **Month-January** |
| --- |
| Nature and scope of oceangraphy. Wenger drift hypothesis<br>Test and revision |

| **Month-February** |
| --- |
| Sea floor spreading and plate tectonic Features of ocean basin Configuration of ocean floor Indian Atlantic Pacific Ocean<br>Test and Revision |

| **Month-March** |
| --- |
| Current of Pacific, Atlantic, Indian Ocean Physical properties of sea water Ocean food<br>Test and Revision |

| **Month-April** |
| --- |
| Mineral and energy sources, Sea level change Evidence and impact sea level change EEZ, UNCLOS.<br>Test and Revision |

**Lesson plan**

**Name of Assistant/Associate Professor – Shweta**
**Class - B.A. 6th Sem**
**Subject- Geography**
**Paper GEO 303: INTRODUCTION TO REMOTE SENSING, GIS & QUANTITATIVE METHODS**
**Session- 2023-24**

| Months | Content |
|---|---|
| January | Introduction of Aerial photograph |
| February | Elements of aerial photograph<br>Introduction to remote sensing<br>Type of imagery and their application<br>Introduction to GIS |
| March | Application of GIS<br>Measure of Central tendency mean median mode<br>Measure of dispersion Range , Quartil deviation, mean deviation, standard deviation, cofficient of variation |
| April | Range<br>Quartil deviation<br>Test and revision |

**Shweta**

**Extension Lecturer**

**Deptt. of Geography**

**Government College for Women, Narnaul**

# Lesson Plan

**Name of Extension Lecturer: Shweta**

**Class:M.Sc(F) Geography**

**Paper:Geography and Disaster Management**

**Session: 2023-2024**

## January

Definition and nature of disasters; Basic concepts: Hazards and Disaster, Classification/Types of Hazards/Disasters;

## February

Disaster management: meaning, concept, principal, scope, objectives and approaches, elements of disaster management; Geography and Disaster. Major disaster of world and India.Tectonic Disasters: Volcano, Earthquake, Tsunami and Landslides;. Hydrological Disaster: Floods and Droughts; Climatic Disasters: Cyclones and Heavy precipitation;

## March

Human induced Disasters: Industrial and Transport Disaster; Wars and Terrorism induced Disaster.Disaster Mitigation: Hazard assessment, Vulnerability assessment and affecting factors, risk assessment and affecting factors, protective measures and public informationDisaster Preparedness: Disaster plan, Damage inspection, repair and recovery procedures, communicationAnd control centres, disaster forecasting, warning and prediction.

## April

Disaster relief: rapid damage assessment, search and rescue operations, Evacuation and shelter, food and medical supply, mass media coverage, relief aid; significance of reconstruction planning, Economic and social rehabilitation; Impact of disaster on society and economic; Disaster Management Policies and mechanism in India; Remote sensing and GIS in disaster management planning.

Signature

# Lesson Plan

**Name of Extention Lecturer: Shweta**

**Class: B.A. 5th Sem**

**Paper: Economic Geography (GEO 301)**

**Session: 2023-2024**

| MONTHS | TOPICS |
|---|---|
| AUGUST | Definition, nature, scope of economic geography. |
| SEPTEMBER | Economic geography's relation with economics and other branches of social sciences.<br>Classification of economic activities and their impact on environment.<br>World natural resources: types, bases and classification. |
| OCTOBER | Conservation and utilization of natural resources.<br>Spatial distribution of food (rice and wheat), commercial (cotton and sugarcane) and plantation crops (tea, rubber and coffee). |
| NOVEMBER | Classification of mineral resources (ferrous and non-ferrous); distribution and production of coal, iron ore, petroleum and natural gas.<br>Classification of industries; world distribution and production of iron and steel and textile industry |
| DECEMBER | Major industrial complexes of the world.<br>Transport, communication and trade; geographical factors |

| | |
|---|---|
| | in their development; major modes of water, land and air transport.<br>Revision, Recent trends in international trade. |
| | |

Signature

# Lesson Plan

**Name of Extention Lecturer: Shweta**

**Class: M.Sc. Geography (P), 1ST Sem**

**Paper: Climatology**

**Session: 2023-2024**

| MONTHS | TOPICS |
|---|---|
| SEPTEMBER | Climatology; meaning, definition and scope; definition of Weather and climate: Climatology and meterology. Atmosphere: Origin |
| OCTOBER | Atmosphere: Composition and Structure. Insolation: Solar radiation and terrestrial radiation; latitudinal and seasonal variations, effects of atmosphere: greenhouse effect, heat budget and latitudinal heat balance. Temperature: Processes of heat energy transfer, heating and cooling of atmosphere, horizontal and vertical distribution, inversion of temperature.<br>Atmospheric pressure: measurement and its distribution pattern- vertical, horizontal and seasonal variations.<br>General circulation: planetary, geostrophic, subtropical, westerlies and polar winds, tricellular meridional circulation |

| | |
|---|---|
| NOVEMBER | Walker circulation- ENSO and La Nina; circulation pattern in vertical and horizontal planes. Origin of monsoon and jet streams.<br>Atmospheric moisture: sources of atmospheric moisture; types and distribution of humidity and evaporation. Condensation: conditions, forms and types. Precipitation: process, form, types and distribution. Atmospheric equilibrium: stability and instability, adiabatic process of temperature change, lapse rate: dry and wet adiabatic rate. Tests and assignment. |
| DECEMBER | Air masses: definition, characteristics, modification classification. Fronts: frontogenesis, frontlysis and classification. Atmospheric disturbances: extra tropical and tropical cyclones, their origin and associated weather, thunderstorms, tornadoes and waterspouts. Climatic classification: Bases of climatic classification by Koppen and Thornthwaite. |
| JANUARY | Climate changes – Evidences; Theories of Climate change- Atmospheric Dust Hypothesis, Carbon Dioxide Theory and Astronomic Theory of Climate Change. Revision |

Signature

Lesson Plan

Name of Extension Lecture-Shubh Lata

Paper-Physical geography-II

Class-B.A 2nd, Sem-3rd

Session-2023-24

**Date Months**

24/7/23 to 29/7/23

Weather and climate, Composition and structure of the atmosphere.

1/8/23 to 5/8/23

Isolation and temperature.

7/8/23 to 12/8/23

Atmospheric pressure and winds.

14/8/23 to 19/8/23

Atmospheric humidity and precipitation.

21/8/23 to 26/8/23

Airmasses,Fronts and cyclones.

28/8/23 to 2/9/23

Climattic classification.

4/9/23 to 9/9/23

Climate change and global warming.

11/9/23 to 16/9/23

Surface configuration of the ocean floor

18/9/23 to 23/9/23

Temerature and salinity of oceanic water.

25/9/23 to 30/9/23

Circulation of water.

3/10/23 to 7/10/23

Oceanic resources.

9/10/23 to 14/10/23

Revision and test of the students.

16/10/23 to 21/10/23

Revision and problem solution.

23/10/23 to 28/10/23

Revision and test of the students.

30/11/23 to 6/12/23

Again revision and test of the students.

# Lesson Plan

Name of Extension lecturer -Shubh Lata

Paper-Human Geography

Semster-4th

Session-2023-24

**Date Months**

**15 to20 January**

**Topic:** Nature and scope of human geography. Human races and tribes of India.

**22 to 27 January**

**Topic:** The concept of man-environment relations. Human adaptation to the environment.

**29 to 3 February**

**Topic:** Resources: Meaning, Nature and Components. Classification of resources.

**5 to 10February**

**Topic:** Distribution and utilization of Biotic resources, Distribution and utilization of abiotic resources.

**12 to 17 February**

**Topic:** Conservation of natural resources, Population of the world.

**19 to 24 February**

**Topic:** Concept of optimum population, overpopulation and under-population.

**26 to 2 March**

**Topic:** Theories of population.

**4 to 9 March**

**Topic:** Rural settlements and its type and pattern.

**11to 16 March**

**Topic:** Origin and growth of towns.

**18 to 22 March**

**Topic:** Classification and function of towns.

**1 to 6 April**

**Topic:** Population pressure and resource use.

**8 t0 13april**

**Topic:** Environmental degradation.

**15 to 20 April**

**Topic:** Sustainable development.

**22 to 27 April**

**Topic:** Revision and problem solution

**29 to 4 May**

**Topic:** Revision and class test

Shubhlata

Lesson Plan

Name of Extension Lecture-Shubh Lata

Paper-Statistical Methods in Geography

Class-M.sc Final, Sem-2nd

Session-2023-24

**Date Months**

**15 to20 January**

**Topic:** Geography and statistics, Significance of Statistic in geographical studies. Nature and characteristics.

**22 to 27 January**

**Topic:** Descriptive statistics: Tabulation and graphical representation of data. Measures of central tendency: mean

**29 to 3 February**

**Topic:** Measures of central tendency: median and mode. Partitioned values: Quartiles and deciles. cenrtographic techniques-mean center and median center.

**5 to 10February**

**Topic:** Measure of dispersion: Absolute measure: Range, Quartile deviation.

**12 to 17 February**

**Topic:** Mean deviation, standard deviation and standard distance.

**19 to 24 February**

**Topic:** Relative measure of dispersion: coefficient of variation. Measure of inequality: Location quotient.

**26 to 2 March**

**Topic:** Lorenz curve and Gini's coefficient, Bivariate analysis: scatter diagram, correlation analysis.

**4 to 9 March**

**Topic:** Spearman's rank correlation and karl pearson's correlation.

**11to 16 March**

**Topic:** Test of significance. Chi-square test, student's t-test, f-test .

**18 to 22 March**

**Topic:** Simple linear regression model: regression equations

**1 to 6 April**

**Topic:** Construction of regression line, compulation of residuals and mapping.

**8 t0 13april**

**Topic:** Basis of multivariate analysis: correlation matrix .

**15 to 20 April**

**Topic:** Multiple correlations.

**22 to 27 April**

**Topic:** Revision and problem solution

**29 to 4 May**

**Topic:** Revision and class test

Shubh 2019

# Lesson Plan

Name of Extension Lecture-Shubh Lata

Paper-Regional development planning with special reference to India

Class-M.sc Final, Sem-3rd

Session-2023-24

**Date Months**

**24/7/23 to 29/7/23**

**Topic:** Concept in Development and regional studies: regional and spatial disparities, Method of regional delineation.

**1/8/23 to 5/8/23**

**Topic:** Types of planning region, balanced regional development.

**7/8/23 to 12/8/23**

**Topic:** Development theories: Trickle down theory(Hischman),Growth pole model(Parrox).

**14/8/23 to 19/8/23**

**Topic:** Cumulative causation model(Myrdal),Core-periphery theory(Friedman).

**21/8/23 to 26/8/23**

**Topic:** Recent divergence and convergence theories: Kuznets curve, dependency theory.

**28/8/23 to 2/9/23**

**Topic:** Bio regionalism, eco feminism, deep ecology, sustainable development.

**4/9/23 to9/9/23**

**Topic:** Need for planning region; characteristics of planning region; planning process-sectoral, temporal and spatial dimension.

**11/9/23 to 16/9/23**

**Topic:** Short term and long term perspective of planning; planning for a region's development.

**18/9/23 to 23/9/23**

**Topic:** Multi –regional planning in national contexts; sectoral-spatial development with special reference to agricultural and industrial development in India.

**25/9/23 to 30/9/23**

**Topic:** Decentralization and development, state, civil society and market in the neo-liberal economic framework; globalization.

**3/10/23 to 7/10/23**

**Topic:** Regional planning in India: Regional imbalances/disparities-cause and consequences.

**9/10/23 to14/10/23**

**Topic:** Measurement of regional planning and programmes: backward area development.

**16/10/23 to 21/10 23**

**Topic:** Tribal area development, Hilly area development.

**23/10/23 to 28/10/23**

**Topic:** Arid/desert area development, flood and drought prone areas development.

**3o/11/23 to 6/12/23**

**Topic:** Coastal area development and revision.

Shubhlats

# LESSON PLAN

M.SC.–GEOGRAPHY

SESSION : 2023–24

(SEMESTER–II)

SUBJECT – LAB COURSE–I (ECONOMIC GEOGRAPHY & POPULATION GEOGRAPHY)

**TEACHER'S NAME : SUNITA**

| MONTHS | TOPIC |
|---|---|
| JANUARY TO FEBRUARY | REPRESENTATION OF ECONOMIC DATA |
| | A) DISTRIBUTION OF COAL & PETROLEUM ININDIA |
| | B) DISTRIBUTION OF IRON-ORE & BAUXITE IN INDIA |
| | C) CONSTRUCTION OF ISODAPANE USING SUITABLE DATA |
| | D) ANALYSIS OF SECTORAL CONTRIBUTION IN HARYANA / INDIA |
| | E) DISTRIBUTION OF CULTIVATORS, AGRICULTURE LABOURS & OTHER WORKERS |
| MARCH TO APRIL | REPRESENTATION OF POPULATION DATA |
| | A) POPULATION DISTRIBUTION MAP |
| | B) AGE-SEX STRUCTURE OF POPULATION |
| | C) CALCULATION OF LIFE TABLE |
| | D) FERTILITY, MORTALITY & NATURE GROWTH OF POPULATION BY POLYGRAPH |

# LESSON PLAN

M.SC.–GEOGRAPHY

SESSION : 2023–24

(SEMESTER–II)

SUBJECT – LAB COURSE–2 (COMPUTER BASED DATA MANAGEMENT & GEOGRAPHY)

**TEACHER'S NAME : SUNITA**

| MONTHS | TOPIC |
|---|---|
| JANUARY TO FEBRUARY | I) INTRODUCTION TO COMPUTER SYSTEM & MS OFFICE |
| | II) ENTERING & MANAGING DATA USING SPREADSHEETS |
| | III) REPRESENTATION OF GEOSPATIAL DATA |
| | A) LINE GRAPH (SINGLE & POLYGRAPH) |
| | B) BAR GRAPH (SIMPLE, COMPOUND & MULTIPLE) |
| | C) PIE CHARTS |
| | D) X, Y SCATTER PLOTS |
| | E) TREND LINE |
| MARCH TO APRIL | I) INTRODUCTION TO DATA ANALYSIS PROGRAM |
| | II) ENTERING & MANAGING DATA IN PROGRAM |
| | III) ANALYSIS OF DATA USING DIFFERENT STATISTICAL METHODS IN PROGRAM |
| | IV) PRE PREPARATION & INTERPRETATION OF SIMPLE & MULTIPLE CORRELATION REGRESSION MATRIX IN SEPSIS |
| | V) PREPARATION OF DISTRIBUTION MAPS |
| | A) CHOROPLETH MAPS – MONOVARIATE & BIVARIATE |
| | B) DOT METHOD |
| | VI) MISCELLANEOUS DIAGRAMS & GRAPHS |
| | A) CARTOGRAMS |
| | B) ACCESSIBILITY MAPS |

# LESSON PLAN

## M.SC.–GEOGRAPHY

## SESSION : 2023–24

## (SEMESTER–III)

## SUBJECT – ENVIRONMENTAL GEOGRAPHY

## TEACHER'S NAME : SUNITA

| DATE | MONTHS | TOPIC |
|---|---|---|
| 21 TO 26 | AUGUST | ENVIRONMENTAL GEOGRAPHY : MEANING & SCOPE, PRINCIPLES OF ECOLOGY; HUMAN ECOLOGICAL ADAPTATIONS : INFLUENCE OF MAN ON ECOLOGY & ENVIRONMENT GLOBAL & REGIONAL ECOLOGICAL CHANGES & IMBALANCES |
| 28 TO 2 | SEPTEMBER | CONCEPT OF ENVIRONMENT; COMPONENTS OF ENVIRONMENT – ABIOTIC TYPES OF ENVIRONMENT, BIODIVER-SITY & BIOSPHERE RESERVE. |
| 4 TO 9 | SEPTEMBER | ECOSYSTEM : CONCEPT, TYPES, COMPONENTS & FUNCTION; ENERGY FLOW IN ECOSYSTEM; FOOD CHAIN, FOOD WEB, TROPHIC LEVELS; ECOLOGICAL PRODUCTION & ECOLOGICAL PYRAMIDS. |
| 11 TO 16 | SEPTEMBER | BIOGEOCHEMICAL CYCLES; HYDROLOGICAL. CARBON OXYGEN & NITROGEN CYCLES. ECOSYSTEM – THEIR MANAGEMENT & CONSERVATION. |

CONTD.....P/2..

| DATE | MONTHS | TOPIC |
|---|---|---|
| 19 TO 23 | SEPTEMBER | ECOLOGICAL REGIONS OF INDIA. ENVIRONMENTAL DEGRADATION – MEANING, TYPES, CAUSES, MANAGEMENT AND CONSERVATION ENVIRONMENTAL POLLUTION – MEANING, TYPES, SOURCES, CAUSES & EFFECTS OF ENVIRONMENTAL POLLUTION WITH SPECIAL REFERENCE TO AIR POLLUTION & WATER POLLUTION. |
| 25 TO 30 | SEPTEMBER | ENVIRONMENTAL HAZARDS; EARTH-QUAKES VOLCANOES, TSUNAMIS, FLOODS, DROUGHTS FAMINES – DISTRIBUTION, CAUSES, CONSEQUENCES & MEASURES; GLOBAL WARMING & CLIMATE CHANGE. |
| 2 TO 7 | OCTOBER | GREENHOUSE EFFECT, OZONE DEPLETION |
| 9 TO 14 | OCTOBER | ACID RAIN : URBAN SMOG<br>CLASS–TEST |
| 16 TO 21 | OCTOBER | ENVIRONMENTAL EDUCATION & LEGISL-ATION; ENVIRONMENT IMPACT ASSESS-MENT (EIA). |
| 23 TO 28 | OCTOBER | GLOBAL SUMMITS & AGENCIES OF ENVIR-ONMENTAL CONSERVATION. |
| 30 TO 4 | NOVEMBER | ENVIRONMENTAL ISSUES & POLICIES IN INDIA; NATIONAL ENVIRONMENTAL POLICY – 2006 OF INDIA. |
| 6 TO 11 | NOVEMBER | REVISION & CLASS TEST UNIT–I |
| 13 TO 18 | NOVEMBER | REVISION & CLASS TEST UNIT–I |
| 20 TO 25 | NOVEMBER | REVISION & CLASS TEST UNIT–I |

# LESSON PLAN

B.A. (R–17, SEC–B)

SESSION : 2023–24

(SEMESTER–II)

SUBJECT – PHYSICAL GEOGRAPHY & PRACTICAL GEOGRAPHY

**TEACHER'S NAME : SUNITA**

| DATE | MONTHS | TOPIC |
|---|---|---|
| 5 TO 20 | JANUARY | DEFINITION, NATURE, SCOPE & FIELDS OF PHYSICAL GEOGRAPHY |
| 22 TO 27 | JANUARY | INTERIOR STRUCTURE OF THE EARTH |
| 29 JAN. TO 3 | FEBRUARY | GEOLOGICAL TIME SCALE & ROCKS |
| 5 TO 10 | FEBRUARY | EARTH MOVEMENTS : FOLDS & FAULTS, ORGANIC |
| 12 TO 17 | FEBRUARY | EPEIROGENIC, EARTHQUAKES |
| 19 TO 24 | FEBRUARY | VOLCANOES, THEORY & ISOSTASY |
| 26 FEB TO 2 | MARCH | WEGNER'S THEORY OF CONTINENTAL DRIFT & PLATE TECTONIC THEORY. |
| 4 TO 9 | MARCH | WEATHERING : PROCESSES, CAUSES & IT TYPES |
| 11 TO 16 | MARCH | MASS – MOVEMENTS; CAUSES, ITS TYPES & IMPACTS |
| 18 TO 23 | MARCH | CONCEPT OF CYCLE OF EROSION : CYCLE |
| 25 TO 30 | MARCH | CYCLE OF EROSION BY W.M. DAVIS |
| 1 TO 6 | APRIL | CYCLE OF EROSION BY PENCK |
| 8 TO 13 | APRIL | PROCESS & LAND FORMS OF WIND, RIVER |
| 15 TO 20 | APRIL | UNDERGROUND WATER, GLACIERS |
| 22 TO 27 | APRIL | SEA WAVES |
| 29 APR TO 4 | MAY | REVISION UNIT–I & CLASS TEST |
| 6 TO 11 | MAY | REVISION UNIT–II & CLASS TEST |
| 13 TO 18 | MAY | REVISION UNIT–III & CLASS TEST |
| 20 TO 25 | MAY | REVISION UNIT–IV & CLASS TEST |

# LESSON PLAN

## M.SC.–GEOGRAPHY

## SESSION : 2023–24

## (SEMESTER–I)

## SUBJECT – GEOMORPHOLOGY

## TEACHER'S NAME : SUNITA

| DATE | MONTHS | TOPIC |
|---|---|---|
| 15 TO 20 | JANUARY | DEFINITION, NATURE, SCOPE & FUNDAMENTAL CONCEPTS – UNIFORMITARIANISM, GEOLOGICAL STRUC TURE & LANDFORMS, MONOCYCLIC. |
| 22 TO 27 | JANUARY | MULTICYCLIC & POLYGENETIC EVOLUTION OF LANDSCAPES, CLIMATOGENETIC GEOMORPHOLOGY, CONCEPTS OF THRESHOLD, FREQUENCY, THERMO LUMINESCENCE, C-14 & POLLEN IN GEOMORPHOLOGICAL STUDIES. |
| 29 JAN TO 3 | FEBRUARY | INTRODUCTION TO THE FOUR SPHERES OF EARTH & ROCK TYPES. CONTINENTAL DRIFT THEORY & ITS BASIC CONSIDERATIONS, PLATE TECTONICS – PLATE MARGINS & BOUNDARIES, MOVEMENT & DISTRIBUTION OF PLATS, TECTONIC ACTIVITIES ALONG THE BOUNDARIES. |
| 5 TO 10 | FEBRUARY | ENDOGENETIC PROCESS – FAULTING, FOLDING & THEIR GEOMORPHIC EXPRESSIONS. EARTHQUAKE – CAUSES, CLASSIFICATIONS INTENSITY & MAGNITUDE, GEOGRAPHICAL DISTRIBUTION. VOLCANISM. |

CONTD.....P/2..

| DATE | MONTHS | TOPIC |
|---|---|---|
| 12 TO 17 | FEBRUARY | CLASSIFICATION & GEOGRAPHICAL DISTRIBUTION EXOGENETIC PROCESS – WEATHERING CAUSES TYPE OF WREATHING : MECHANICAL, CHEMICAL & BIOLOGICAL, ROCK WEATHERING & SOIL FORMATION. |
| 19 TO 24 | FEBRUARY | MASS WASTING & HILL SLOPES ANALYSIS – CAUSES, CLASSIFICATIONS & TYPES OF MASS MOVMENET. |
| 26 FEB TO 2 | MARCH | SLOW & RAPID MASS MOVEMENTS : HILL SLOPE ANALYSIS; TECHNIQUES & THEORIES. |
| 4 TO 9 | MARCH | MODE & RATE OF SLOPE RETREAT GEOMOROPHIC PROCESS & RESULTING LANDFORMS. |
| 11 TO 16 | MARCH | FLUVIAL, GLACIAL, AEOLIAN & KARSTS. |
| 18 TO 23 | MARCH | APPLIED GEOMORPHOLOGY : MEANING & CONCEPT |
| 25 TO 30 | MARCH | ROLE OF GEOMORPHOLOGY IN ENVIRONMENTAL MANAGEMENT OF THE ACCELERATED EROSION & SEDIMENTATION. |
| 1 TO 6 | APRIL | APPLICATION OF GEOMORPHOLOGY IN GROUND WATER STUDIES. |
| 8 TO 13 | APRIL | IN CONSTRUCTION OF LARGE DAMS & IN URBAN DEVELOPMENT. |
| 15 TO 20 | APRIL | REVISION UNIT–I & CLASS TEST |
| 22 TO 27 | APRIL | REVISION UNIT–II & CLASS TEST |
| 29 APR TO 11 | MAY | REVISION UNIT–III & CLASS TEST |
| 13 TO 20 | MAY | REVISION UNIT–IV & CLASS TEST |

# LESSON PLAN

M.SC.–GEOGRAPHY

SESSION : 2023–24

(SEMESTER–II)

SUBJECT – GEOG-203 (POPULATION GEOGRAPHY)

## TEACHER'S NAME : SUNITA

| MONTHS | TOPIC |
|---|---|
| UNIT–I JANUARY | POPULATION GEOGRAPHY : DEFINITION, NATURE & SCOPE, CONCEPTUAL FRAMEWORK & HISTORICAL DEVELOPMENT, SOURCES OF POPULATION DATA WITH PARTICULAR REFERENCE TO INDIA – CENSUS, VITAL OR CIVIL REGISTRATION SYSTEM, SAMPLE REGISTRATION SYSTEM. |
| UNIT–II (FEBRUARY) | POPULATION DISTRIBUTION & DENSITY, FACTORS & DETERMINANTS, POPULATION GROWTH – TRENDS & DETERMINANTS. THEORIES OF POPULATION GROWTH–PRE–MALTHUSIAN VIEWS, MALTHUS'S THEORY, VIEWS OF SOCIALIST WRITERS, OPTIMUM POPULATION THEORY, DEMOGRAPHIC TRANSITION MODEL. |
| UNIT–III (MARCH) | COMPONENTS OF POPULATION CHANGE : DETERMINANTS OF FERTILITY & MORTALITY, TRENDS IN INDIA, MIGRATION : MAJOR INTERNATIONAL MIGRATIONS, FEATURES OF INTERNAL MIGRATION IN INDIA, THEORIES OF MIGRATION. POPULATION COMPOSITION & CHARACTERISTICS – AGE & SEX COMPOSITION, LITERACY, MARITAL STATUS & ECONOMIC CHARACTERISTICS OF POPULATION. |
| UNIT–IV APRIL | POPULATION & DEVELOPMENT : POPULATION GROWTH & ECONOMIC DEVELOPMENT, POPULATION GROWTH & ENVIRONMENT QUALITY, POPULATION POLICIES OF INDIA & CHINA, POST INDEPENDENCE DEVELOPMENT REPRODUCTIVE AND CHILD HEALTH PROGRAMME. |
| MAY | REVISION & TEST |

# LESSON PLAN

## M.SC.–GEOGRAPHY

## SESSION : 2023–24

## (SEMESTER–I)

## SUBJECT – URBAN GEOGRAPHY

## TEACHER'S NAME : SUNITA

| DATE | MONTHS | TOPIC |
|---|---|---|
| 21 TO 26 | AUGUST | URBAN PLACES : DEFINING URBAN PLACES IDENTIFICATION OF URBAN PLACES, CRITERIA FOR IDENTIFICATION OF URBAN PLACES & CENSUS DEFINITION OF URBAN PLACES. |
| 28 AUG TO 2 | SEPTEMBER | URBAN GEOGRAPHY : DEFINITION, NATURE & SCOPE OF URBAN GEOGRAPHY, APPR-OACHES & RECENT TRENDS IN URBAN GEOGRAPHY ORIGIN & EVOLUTION OF TOWNS IN ANCIENT. |
| 4 TO 9 | SEPTEMBER | MEDIEVAL & MODERN WORLD. SETTING OF TOWNS, SITE & SITUATION OF TOWNS. |
| 11 TO 16 | SEPTEMBER | CITY & REGION : SPATIAL LINKAGES (RURAL–URBAN LINKAGES) & INTERACT-IONS : RURAL : URBAN FRINGE – SUB – URBANIZATION. |
| 19 TO 23 | SEPTEMBER | SIZE & SPACING OF CITIES–CENTRAL PLACE THEORY; CHRISTALLER & LOSCH; RANK SIZE RULE. |
| 25 TO 30 | SEPTEMBER | PRIMATE CITY; BASIC & NON-BASIC FUNCTIONS. FUNCTIONAL CLASSIFICA-TION OF CITIES. CONTRIBUTION OF FOREIGN & INDIAN SCHOLARS. |

CONTD....P/2..

| DATE | MONTHS | TOPIC |
|---|---|---|
| 2 TO 7 | OCTOBER | URBAN MORPHOLOGY & LAND USE : MODELS OF CITY STRUCTURE |
| 9 TO 14 | OCTOBER | CONCENTRIC ZONE MODEL BY E.W. BURGESS, SECTOR MODEL BY HOMER HOYET. |
| 16 TO 21 | OCTOBER | MULTIPLE NUCLEI MODEL BY HARRIS & ULLMAN. |
| 23 TO 28 | OCTOBER | SOCIAL AREA ANALYSIS. CONTEMPORARY URBAN MORPHOLOGY IN THE WAKE OF GLOBALIZATION – GLOBAL CITY. |
| 30 OCT TO 4 | NOVEMBER | URBANIZATION & URBANISM, URBANIZATION CYCLE, TRENDS & PATTERNS URBANIZATION IN THE WORLD. |
| 6 TO 11 | NOVEMBER | WITH SPECIAL REFERENCE TO INDIA; PROBLEMS OF METROPOLITAN CITIES IN INDIA. |
| 13 TO 18 | NOVEMBER | URBAN PLANNING IN INDIA : STUDY OF MASTER PLANS OF DELHI. |
| 20 TO 25 | NOVEMBER | CHANDIGARH; CONCEPT OF SMART CITIES IN INDIA. |
| 26 TO 30 | NOVEMBER | REVISION & CLASS TEST |

# LESSON PLAN FOR M.Sc. (IV Sem.)

## INTRODUCTION TO RESEARCH IN GEOGRAPHY

SESSION – 2023-24 TEACHER'S NAME – DR. MAMTA SIDDHARTH

| DAYS/CLASS | UNIT | TOPICS | REMARKS |
|---|---|---|---|
| 1. | UNIT-I | MEANING, OBJECTIVE, & SIGNIFICANCE OF RESEARCH | |
| 2 | 15 JAN 2024 | TYPES OF RESEARCH | |
| 3 | | TYPES OF RESEARCH & CHARACTERISTICS | |
| 4 | | RESEARCH STEPS | |
| 5 | | RESEARCH STEPS | |
| 6. | | PROBLEMS ENCOUNTERED BY RESEARCHERS IN INDIA | |
| 7. | | CLASS TEST FOR UNIT – I | CLASS TEST |
| 8 | UNIT-II | MEANING & SELECTION OF RESEARCH PROBLEM | |
| 9 | | NEED FOR DEFINING A RESEARCH PROBLEM | |
| 10 | | TECHNIQUES INVOLVED IN DEFINING A PROBLEM | |
| 11 | | LIMITATION OF THE RESEARCH PROBLEM | |
| 12 | | FORMULATION OF HYPOTHESIS: DEFINITION | |
| 13 | | CHARACTERISTICS OF HYPOTHESIS | |
| 14 | | TYPES OF HYPOTHESIS | |
| 15 | | REVISION OF UNIT – II | REVISION |
| 16 | | CLASS TEST OF UNIT – I & II | CLASS TEST |
| 17 | UNIT-III | MEANING & NEED OF RESEARCH DESIGN | |
| 18 | | FEATURES OF R.D. | |
| 19 | | TYPES OF R.D. – EXPLORATORY | |
| 20 | | TYPES OF R.D. – DESCRIPTIVE | |
| 21 | | TYPES OF D.D. – EXPERIMENTAL | |
| 22 | | RANDOM SAMPLING DESIGN | |
| 23 | | NON-RANDOM SAMPLING DESIGN | |
| 24 | | MERITS OF SAMPLING | |
| 25 | | LIMITATION OF SAMPLING | |
| 26 | | REVISION OF UNIT – III | REVISION |
| 27 | | CLASS TEST OF UNIT – I, II & III | CLASS TEST |
| 28 | UNIT-IV | TYPES OF DATA – PRIMARY | |
| 29 | | TYPES OF DATA – SECONDARY | |
| 30 | | SOURCES OF DATA | |
| 31 | | METHODS OF COLLECTING PRIMARY DATA | |
| 32 | | OBSERVATION METHOD | |
| 33 | | OBSERVATION METHOD | |
| 34 | | INTERVIEW METHOD | |
| 35 | | INTERVIEW METHOD | |
| 36 | | QUESTIONAIRE METHOD | |
| 37 | | QUESTIONAIRE METHOD | |
| | | TEACHER'S SIG. HEAD PRINCIPAL | |

# LESSON PLAN FOR M.SC. (IV Sem)

## INTRODUCTION TO RESEARCH IN GEOGRAPHY

SESSION- 2023-24 TEACHER'S NAME - DR. MAMTA SIDDHARTH

| DAYS/ CLASS | UNIT | TOPICS | REMARKS |
|---|---|---|---|
| 38 | UNIT-IV | QUESTIONAIRE METHOD | |
| 39 | | SCHEDULE METHOD | |
| 40 | | SCHEDULE METHOD | |
| 41 | | DIFFERENCE BETWEEN QUESTIONAIRE & SCHEDULE | |
| 42 | | REVISION UNIT IV | REVISION |
| 43 | | CLASS TET OF UNIT I, II, III & IV | CLASS |
| 44 | | ASSIGNMEN TOPIC DISTRIBUTION TO STUDENT | ASSIGNMENT |
| 45 | | REVISION START FROM UNIT -I | REVISION |
| 46 | | REVISION | " |
| 47 | | REVISION | " |
| 48 | | REVISION | " |
| 49 | | ASSIGNMENT SUBMISSION | ASSIGNMENT |
| 50 | | TOPIC DISCUSSION WITH STUDENT TILL SEMESTER END IN CLASS ROOM. (20 April 2024) | DISCUSSION |

TEACHER'S SIG HEAD PRINCIPAL

# LESSION PLAN (SESSION 2023-24)

FOR

## M.SC GEOGRAPHY (SEMESTER - IV)

LAB-COURSE-I DIGITAL IMAGE PROCESSING TECHNIQUES

TEACHER'S NAME - DR. MAMTA SIDDHARTH

| CLASS/ DAYS | UNIT/ START DATE | TOPICS | REMARKS |
|---|---|---|---|
| 1 | UNIT-I 15 JAN 2024 | UNDERSTAND DIGITAL IMAGE | |
| 2. | | DN | |
| 3 | | REFLECTANCE | |
| 4 | | VARIANCES | |
| 5 | | GENERATE REFLECTANCE SPECTRUM FOR | |
| 6 | | DIFFERENT LAND USES | |
| 7 | | & SURFACE CHARACTERISTICS | |
| 8 | | REVISION | |
| 9 | | REVISION | REVISION |
| 10 | | CHECK, STUDENT'S PROGRESS | REVISION |
| 11 | | BA CLASS TEST | RROGRESS CHECK |
| 12 | UNIT-II | BAND RATIONING (NDVI) | TEST |
| 13 | | SUPERVISED CLASSIFICATION (Theory) | |
| 14 | | UNSUPERVISED CLASSIFICATION (Theory) | |
| 15, 16, 17 | | SUPERVISED CLASSIFICATION STEPS ON ERDAS | |
| 18, 19, 20, 21 | | UNSUPERVISED CLASSIFICATION STEPS ON ERDAS | |
| 22 | | ACCURACY ASSESSMENT | |
| 23 | | ACCURACY ASSESSMENT | |
| 24 | | ACCURACY ASSESSMENT | |
| 25 | | REVISION | |
| 26 | | REVISION | REVISION |
| 27 | | CHECK STUDENT'S PROGRESS | REVISION |
| 28 | | CLASS TEST | PROGRESS CHECK |
| 29 | | FORMATIVE ASSESSMENT OF STUDENT (GROUP-WISE) & REVISION TILL SEM. END. | TEST |

(20 April, 2024)

TEACHER'S SIG. HEAD PRINCIPAL

# LESSION - PLAN ( SESSION 2023-24)

## M.Sc. GEOGRAPHY ( SEMESTER - IV )

LAB-COURSE - II - GIS EXERCISES

TEACHER - DR. MAMTA SIDDHARTH

| DAY/CLASS | UNIT/START DATE | TOPICS | REMARKS |
|---|---|---|---|
| 1. | UNIT-I | GENERATION OF GEOGRAPHIC FRAMEWORK | |
| 2 | 15JAN2024 | TOPOGRAPHIC MAPS | |
| 3 | | | |
| 4 | | PROJECTION | |
| | | SPHEROIDS | |
| 5 | | | |
| 6 | | GEOREFERENCING | |
| | | GEOCODING | |
| 7 | | GENERATION OF GEO-DATABASE / SPATIAL DATA | |
| 8 | | VECTORISATION ( POINT ) | |
| 9 | | VECTORISATION ( LINE ) | |
| 10 | | VECTORISATION ( POLYGON ) | |
| 11 | | JOIN - NON-SPATIAL | |
| 12 | | EDITING | |
| 13 | ~~UNIT~~ II | REVISION | |
| 14 | | REVISION | REVISION |
| 15 | | CLASS TEST | REVISION TEST |
| 16 | UNIT II | QUERY | |
| 17 | | QUERY | |
| 18 | | PROXIMITY | |
| 19 | | OVERLAY | |
| 20 | | OVERLAY | |
| 21 | | NETWORK (MORPHOMETRIC) | |
| 22 | | NETWORK (DRAINAGE) | |
| 23 | | NTWORK (ROAD) | |
| 24 | | SYMBOLIZATION : CHOROCHROMATIC | |
| 25 | | CHOROPLETH | |
| 26 | | POINT PROPORTIONAL | |
| 26 | | POINT PROPORTIONAL | |
| 27 | | REVISION | |
| 28 | | REVISION | REVISION |
| 29 | | CLASS TEST | REVISION TEST |
| 30 | | FORMATIVE ASSESSMENT OF STUDENT (GROUP-WISE) & REVISION TILL SEM. END PROGRESS CHECK (20 April 2024) | FORMATIVE ASSESSMENT PROGRESS CHECK |

TEACHER'S SIG HEAD PRINCIPAL

# LESSON PLAN (Session 2023-24)

FOR

M. Sc. GEOGRAPHY (SEMESTER-I)

LAB COURSE-II : CLIMATOLOGY & GEOMORPHOLOGY

BY : DR. MAMTA SIDDHARTH

| Days/ CLASS | Date | Unit | TOPICS | REMARKS |
|---|---|---|---|---|
| 1 | 03 Oct 2023 | I | Graphical Representation of Climatic Data | |
| 2 | | | Climograph (Taylor) | |
| 3 | | | Climograph (Foster's) | |
| 4 | | | Rainfall Deviation Diagrams | |
| 5 | | | Hythergraph | |
| 6 | | | Isopleths | |
| 7 | | | Isopleths | |
| 8 | | | Study of Weather Instrument | |
| 9 | | | Elements of Weather | |
| 10 | | | Interpretation of Indian Weather Maps | |
| 11 | | | " | |
| 12 | | | Construction of Water-Budget Diagram | |
| 13 | | | Class Test | |
| 14 | | II | Morphometric Analysis of Drainage Basin | |
| 15 | | | Significance, | |
| 16 | | | Basin morphometry of fluvially originated | |
| 17 | | | Drainage Basin | |
| 18 | | | stream ordering | |
| 19 | | | Bifurcation Ratio, Basin Perimeter, length & Area | |
| 20 | | | stream frequency & Drainage Density | |
| 21 | | | Hypsometric curve & | |
| 22 | | | Integral Hypsometric Curve. | |
| 23 | | | Clinographic Analysis | |
| 24 | | | Altimetric Analysis | |
| 25 | | | Average Slop (Wentworth's method) | |
| | | | Relative Relief (Smith's method) | |
| | | | Class Test | |
| | | | Revision & Formative Assessment of students till session end | |
| | | | (10 Dec 2023) | |

Teacher's Sig.

HEAD

Principal

# LESSON PLAN

## M.Sc. Geography : REMOTE SENSING (SEMESTER-III)

Teacher Name : Dr. MAMTA SIDHARTH

SESSION 2023-24

| S.No/ DAYS | UNIT | TOPICS | REMARKS |
|---|---|---|---|
| 1 Sep 2023 | | | |
| 1 | | AERIAL PHOTOGRAPHY : HISTORY, | |
| 2 | | DEFINITION, ADVANTAGES . | |
| 3 | | LIMITATIONS | |
| 4 | | ELEMENTS OF PHOTOGRAPHIC SYSTEMS : CAMERA, FILMS | |
| 5 | UNIT I | AERIAL PHOTOGRAPHS : TYPES | |
| 6 | | SCALE AND RESOLUTION | |
| 7 | | GEOMETRIC PROPERTIES OF SINGLE VERTICAL AERIAL | |
| 8 | | MIRROR STEREOSCOPE AND STEREOSCOPE VISION | |
| 9 | | STEREOSCOPE PARALLAX | |
| 10 | | RELIEF DISPLACEMENT | |
| 11 | | IMAGE INTERPRETATION | |
| 12 | | IMAGE INTERPRETATION | |
| 13 | | IMAGE INTERPRETATION | |
| 14 | | CLASS TEST OF UNIT-I | CLASS TEST |
| 15 | | REMOTE SENSING - DEFINITION, SCOPE, DEVELOPMENT | |
| 16 | | ELECTROMAGNETIC RADIATION AND SPECTRUM | |
| 17 | UNIT II | ELECTROMAGNETIC SPECTRUM | |
| 18 | | BLACK BODY RADIATION AND KIRCHHOFF'S LAW | |
| 19 | | INTERACTION OF EMR WITH ATMOSPHERE AND | |
| 20 | | EARTH'S SURFACE FEATURES | |
| 21 | | ATMOSPHERIC WINDOW | |
| 22 | | ORBITS : GEO-STATIONARY | |
| 23 | | SUN SYNCHRONOUS | |
| 24 | | REMOTE PLATFORMS | |
| 25 | | REMOTE SENSORS | |
| 26 | | RESOLUTION : SPATIAL, RADIOMETRIC, | |
| 27 | | TEMPORAL | REVISION |
| 28 | | CLASS TEST UNIT II | CLASS TEST |
| 29 | | ACTIVE AND PASSIVE REMOTE SENSING | |
| 30 | | CONCEPT AND PRINCIPAL OF MICROWAVE REMOTE | |
| 31 | UNIT III | SENSING. | |
| 32 | | PLATFORMS AND SENSOR | |
| 33 | | SYNTHETIC APERTURE RADAR (SAR) | |
| 34 | | HYPER SPECTRAL REMOTE SENSING | |
| 35 | | INDIAN SPACE PROGRAMMES | |
| 36 | | REMOTE SENSING MISSION | |
| 37 | | REMOTE SENSING MISSION | |
| 38 | | CLASS TEST UNIT - III | REVISION CLASS TEST |
| 39 | | INTRODUCTION TO DIGITAL IMAGE PROCESSING | |
| 40 | UNIT IV | DIGITAL IMAGES | |
| 41 | | DATA FORMATS | |

| DATE | UNIT | TOPICS | REMARKS |
|---|---|---|---|
| 42 | | IMAGE RESTORATION | |
| 43 | | RADIOMETRIC CORRECTIONS | |
| 44 | | GEOMETRIC CORRECTIONS | |
| 45 | | INTRODUCTION TO CONTRAST STRETCHING | |
| 46 | | TECHNIQUES | |
| 47 | | METHODS | |
| 48 | | METHODS OF SUPERVISED CLASSIFICATION | |
| 49 | | METHODS OF " " | |
| 50 | | METHODS OF " " | |
| 51 | | METHODS OF UNSUPERVISED CLASSIFICATION | |
| 52 | | METHODS OF " " | |
| 53 | | METHODS OF " | |
| 54 | | ACCURACY OF CLASSIFIED MAPS | |
| 55 | | ACCURACY OF CLASSIFIED MAPS | |
| 56 | | RECENT TRENDS IN DIGITAL IMAGE PR. | |
| 57 | | OCESSING | |
| 58 | | RECENT " " " " | |
| 59 | | CLASS TEST OF UNIT I, II, III & IV | REVISION CLASS |
| 60 | | REVISION START FROM UNIT I | |
| 61 | | REVISION | |
| 62 | | REVISION | |
| 63 | | REVISION | ASSIGNMENT DISCUSSION |
| 64 | | ASSIGNMENT SUBMISSION | |
| 65 | | TOPIC DISCUSSION WITH STUDENT TILL SEMESTER END IN CLASS ROOM. | |
| | | ( 10 Dec 2023 ) | |

Teacher's Sig. H.O.D. Principal

**Lesson plan**

**Name of Assistant/Associate Professor – Dr. Sunita**
**Class - M.Sc. 1st Sem**
**Subject- Geography**
**Paper GEOG103: Advance Geography of India**
**Session- 2023-24**

| Month | Contents |
|---|---|
| **July** | Physical Setting: Space relationship of India with neighboring countries; Physiographic regions; Drainage system and watersheds;<br><br>Climate: Mechanism of Indian monsoons and rainfall patterns, Climatic regions; Natural vegetation; Soil types and their distributions. |
| **August** | Agriculture and Resources :Major characteristics and problems of agriculture; Agricultural regions; Agro-climatic regions. Green revolution and its impact on Indian agriculture.; |
| **September** | Dry farming and its significance; Livestock resources and white revolution. Non-conventional Energy resources, and mineral resources-coal and petroleum. |
| **October** | Regional Development and Planning: Experience of regional planning in India; Integrated ruraldevelopment programmes; Planning for backward area, desert, drought prone, hill, tribal area development; |
| **November** | Contemporary Issues: Environmental hazards: earthquakes, Tsunamis, floods and droughts-causes and mitigation measures.Population explosion and food security; Regional disparities in economic development; Linkage of rivers; |

**Dr. Sunita**

**Department of Geography**

**GCW, Narnaul**

**Lesson plan**

**Name of Assistant/Associate Professor – Dr. Sunita**
**Class - B.A. 5th Sem**
**Subject- Geography**
**Paper 301: Economic Geography**
**Session- 2023-24**

| Months | Content |
|---|---|
| July | Nature and Scope of Economic Geography<br>Branches of Economic Geography<br>Importance of Economic Geography |
| August | Classification of Economic Activities<br>World Natural Resources<br>Assignment<br>Test |
| September | Utilization and Conservation of Natural Resources<br>Biotic and Abiotic Resources<br>Agriculture Resources<br>Test<br>Revision |
| October | Minerals Resources<br>Iron, Coal, Petroleum and Natural Gas Resources<br>Manufacturing Industries<br>Test<br>Revision |
| November | Transport and Communication<br>International trade<br>Assignment<br>Revision |

**Dr. Sunita**

**Extension Lecturer**

**Deptt. of Geography**

**Government College for Women, Narnaul**

**Lesson plan**

**Name of Assistant/Associate Professor – Dr. Sunita**
**Class - B.A. 6th Sem**
**Subject- Geography**
**Paper GEO 303: INTRODUCTION TO REMOTE SENSING, GIS & QUANTITATIVE METHODS**
**Session- 2023-24**

| Months | Content |
|---|---|
| January | Introduction of Aerial photograph |
| February | Elements of aerial photograph<br>Introduction to remote sensing<br>Type of imagery and their application<br>Introduction to GIS |
| March | Application of GIS<br>Measure of Central tendency mean median mode<br>Measure of dispersion Range , Quartil deviation, mean deviation, standard deviation, cofficient of variation |
| April | Range<br>Quartil deviation<br>Test and revision |

**Dr. Sunita**

**Extension Lecturer**

**Deptt. of Geography**

**Government College for Women, Narnaul**