Department of Geography

Lesson plan- 2016-17 (Odd Semester)

GEOG-101 Climatology- Theory

Class- M.Sc.I, Semester-1

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| Month/Year | Topics to be covered |
| July, 2016 | Definition of weather and climateClimatology and MeteorologyOrigin, composition and structure of atmosphereSolar radiation, heat budget Temperature distribution. |
| August, 2016 | Atmospheric pressure and its distribution patternGeneral circulation and planetary winds, Walker circulation- ENSO and La Nina,Origin of monsoons and jet streams.Atmospheric Moisture: humidity, evaporation, condensation. |
| September, 2016 | Precipitation: Dynamics and types of precipitationStability and instability of atmosphere,Air masses and fronts.Weather systems: Extra tropical and tropical cyclones. |
| October/Nov, 2016 | Climatic classification: Bases of climatic classification by Koeppen, Trewartha and Thornthwaite.Climatic change- Evidences and explanations.Global warming and its impactsRevision |

Note: Assignments, tests, and extracurricular activities will be conducted

Signature of Teacher

Department of Geography

Lesson plan- 2016-17 (Odd Semester)

Geography of India, GEOG-102- Theory

Class- M.Sc.I, Semester-1

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| Month/Year | Topic to be covered |
| July, 2016 | Major terrain elements of India and their role in shaping physical landscapes of IndiaDrainage systems of India and their functional significanceRegional and seasonal variations in climate climate regions of India |
| August, 2016 | Soil and vegetation types of India- their distribution, characteristics and conservationAgriculture: Characteristics of Indian agriculture, agricultural development in India since independence, problems of Indian agricultureIrrigation development in India,  |
| September, 2016 | environmental impacts of irrigation development projects with special reference to Bhakra Nangal and Indira Gandhi Canal Production and distribution of following minerals and power resourcesMinerals: Iron ore, mica, manganese, bauxite.Power Resources: coal, petroleum, and hydropower.Minerals and power resources- The status of their use and need for conservation. |
| October/Nov, 2016 | Industrial Production and distribution--iron and steel-cotton textile-automobile industryMajor industrial regions of India and their characteristics.Patterns of domestic and international trade.Major exports and imports of India’s tradebalance of payment.Revision |

Note: Assignments, tests, and extracurricular activities will be conducted

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Lesson plan- 2016-17 (Odd Semester)

Economic Geography, GEOG-103- Theory

Class- M. Sc. I, Semester-1

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| Month/Year | Topic to be covered |
| July, 2016 | Definition, nature, scope and approaches of economic geographyRelationship of economic geography with economics and other branches of social sciencesWorld Economies: bases of classification, patterns and characteristics of developed and developing economies of the world. |
| August, 2016 | World production and distribution of energy resources: coal and petroleumWorld production and distribution of mineral resources: iron-ore and bauxite |
| September, 2016 | Network structure economic activities impact of transport on economic activitiesEdward Ullman’s spatial interaction modelBasic concepts in location problems, location models of Weber, Christaller and LoschConcept of economic growth and development,  |
| October/Nov, 2016 | globalization and pattern of economic developmentRecent trends in pattern of international tradeEmergence of a new global economy – transnational integration and its spatial outcomesMajor regional trade blocks of the world, free trade initiatives (GATT, UNCTAD, WTO).Revision |

Note: Assignments, tests, and extracurricular activities will be conducted

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Lesson plan- 2016-17 (Odd Semester)

Statistical Methods in Geography, GEOG-104- Theory

Class- M. Sc. I, Semester-1

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| Month/Year | Topic to be covered |
| July, 2016 | Descriptive Statistics : Histograms and Graphs, Measures of Central Tendency- mean, median, modePartitioned values: Quartiles and decilesComparing the mean, median and modeMeasures of Dispersion: Absolute measures: Range, Quartile Deviation, Mean Deviation, Standard Deviation. Relative measure of dispersion: coefficient of variation. |
| August, 2016 | Normal curve as a probability distribution: Its characteristics and area under curveMeasure of inequality- -Location quotient -Lorenz curve.Sampling: Theory of sampling, Methods of sampling, Sampling distribution Chance errors in sampling. |
| September, 2016 | Bivariate Analysis: Scatter diagram, correlation analysis,Spearman’s rank correlation and Karl Pearson’s correlation coefficient. Test of significance.Simple Linear Regression Model: properties of least square estimate. Coefficient of determination. |
| October/Nov, 2016 | Residuals and their mappingBasics of multivariate analysis: -Correlation matrix, -partial and multiple correlationsRevision |

Note: Assignments, tests, and extracurricular activities will be conducted

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Department of Geography

Lesson plan- 2016-17 (Odd Semester)

Cartographic Methods in Geography (Practical), GEOG-105

Class- M. Sc. I, Semester-1

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| Month/Year | Topics to be covered |
| July, 2016 | Climate data representation by diagrams and maps  - Line and bar graph- Poly graph- Rainfall deviation diagram- Climograph (Taylor and Foster’s)- Hythergraph- Isopleth- Wind rose diagram |
| August, 2016 | Diagrams : Types and properties of diagrams representing socio-economic dataOne dimensional diagram - Bar diagram : Simple bar, multiple bar, comparative barTwo dimensional diagram- pie diagram, proportional circle, rectangle, square |
| September, 2016 | Three dimensional diagram- Sphere, cube, curbsi Distribution maps- Dot method- Choropleth – monovariate and bivariate |
| October/Nov, 2016 | Miscellaneous diagrams and graphs- Trend graph- Age and Sex pyramid- Flow diagram, cartogram and accessibility maps.Revision and discussion |

Signature of Teacher