

Total No. of Questions : 8]

SEAT No. :

P2990

[5535]-101

[Total No. of Pages : 2

M.A./M.Sc.

GEOGRAPHY

**Gg-101 : Principles of Geomorphology
(2013 Pattern) (Semester - I) (Credit System)**

Time : 3 Hours]

[Max. Marks : 50

Instructions to the candidates:

- 1) *Attempt any three questions from Q.No. 1 to 6.*
- 2) *Q.No. 7 and 8 are compulsory.*
- 3) *Draw figures/maps wherever necessary.*
- 4) *Figures to the right indicate full marks.*

- Q1)** a) Define 'Geomorphology'. [2]
b) Enlist folded mountains and their locations in the World. [4]
c) Explain types of geomorphic scales. [4]
- Q2)** a) Define 'Pediplanation'. [2]
b) Give an account of 'Holmes convection current theory'. [4]
c) Differentiate between fold and fault. [4]
- Q3)** a) What is 'Pangea' and 'Panthalasa'? [2]
b) Discuss isostatic view of Airy. [4]
c) Explain the major Geo-plates in plate tectonics. [4]
- Q4)** a) What is chemical weathering? [2]
b) Distinguish between process of weathering and erosion. [4]
c) Write a short note on flow and creep. [4]

P.T.O.

- Q5)** a) What is 'trio' of Davisian cycle of erosion? [2]
b) Discuss the mechanism of erosional work of river. [4]
c) Describe the various types of delta produced by river. [4]
- Q6)** a) What is out wash plains? [2]
b) Write a note on slope decline model. [4]
c) Describe types of moraines produced by glacier. [4]
- Q7)** a) Explain in details the concept of Sial and Sima. [5]
b) Define 'Waves' and 'Tides'. Give an account of 'Bays' and 'Tombolo' landforms. [5]
- Q8)** a) Give an account of elements and segments of slope. [5]
b) Explain the 'Wegener's Continental Drift Theory'. [5]



Total No. of Questions : 8]

SEAT No. :

[Total No. of Pages : 2

P2991

[5535]-102

M.A./M.Sc.

GEOGRAPHY

**Gg-102 : Principles of Climatology
(2013 Pattern) (Semester-I) (Credit System)**

Time : 3 Hours]

[Max. Marks : 50

Instructions to the candidates:

- 1) Attempt any three questions from Q. 1 to Q. 6.*
- 2) Questions No. 7 and 8 are compulsory.*
- 3) Draw figures/maps wherever necessary.*
- 4) Figures to the right indicate full marks.*

Q1) a) Give the meaning of 'climate'. **[2]**

b) Explain the scope of climatology. **[4]**

c) Discuss the geo strophic wind. **[4]**

Q2) a) What is Homosphere? **[2]**

b) Explain the seasonal variation of Insolation. **[4]**

c) Write the source region of Air mass. **[4]**

Q3) a) What do you mean by atmospheric pressure? **[2]**

b) Write the development of climatology. **[4]**

c) Explain the gradient wind. **[4]**

P.T.O.

- Q4)** a) What do you mean by Insolation? [2]
b) Explain dry lapse rate. [4]
c) Discuss the physical properties of Atmosphere. [4]
- Q5)** a) What is Absorption and Reflection? [2]
b) Explain various process related to water cycle. [4]
c) Explain Atmospheric window in detail. [4]
- Q6)** a) What is air mass? [2]
b) Explain troposphere in detail. [4]
c) Discuss the factors affecting on wind. [4]
- Q7)** a) Write about wind observation and measurement. [5]
b) Write the effects of Atmosphere on Insolation. [5]
- Q8)** a) Describe weather forecasting. [5]
b) Explain Aurora and Ionosphere. [5]



Total No. of Questions : 8]

SEAT No. :

P2992

[5535]-103

[Total No. of Pages : 2

M.A/M.Sc

GEOGRAPHY

**Gg - 103: Principles of Economic Geography
(2013 Pattern) (Semester - I) (Credit System)**

Time : 3 Hours]

[Max. Marks : 50

Instructions to the candidates:

- 1) *Attempt any three questions from question number 1 to 6.*
- 2) *Question number 7 and 8 are compulsory.*
- 3) *Figures to the right indicate full marks.*
- 4) *Use of map stencil and calculator is allowed.*

- Q1)** a) What is hypothesis? [2]
b) Discuss the modern economic landscape. [4]
c) Describe the various types of hypothesis. [4]
- Q2)** a) What is an economic activity? [2]
b) Give classification of economic activities with examples. [4]
c) Explain Myrdal's model in brief with suitable examples. [4]
- Q3)** a) What do you mean by economies of scale? [2]
b) Explain the economic factors influencing international trade. [4]
c) Describe the significance of globalization. [4]
- Q4)** a) Give the characteristics of village economy. [2]
b) Discuss the classification of countries on the basis of economic development. [4]
c) Explain Von Thunen's model. [4]

P.T.O.

- Q5)** a) Explain the major characteristics of under - developed countries. [2]
b) Explain the significance of land and labour in economic activity. [4]
c) Describe the assumptions of Weber's model. [4]
- Q6)** a) Distinguish between null and alternate hypothesis. [2]
b) Explain the importance of capital in economic activity. [4]
c) Explain how variation in demand affects production. [4]
- Q7)** a) Explain the various measures of economic development. [5]
b) Critically evaluate the Ricardo's classical theory. [5]

OR

- Q8)** a) Explain the dynamic and applied nature of Economic Geography. [5]
b) Discuss the development of green revolution in India. [5]



Total No. of Questions :8]

SEAT No. :

P2993

[5535]-104

[Total No. of Pages : 2

M. A. / M. Sc.

GEOGRAPHY

Gg-104 : Principles of Population and Settlement Geography

(2013-Pattern) (Semester - I) (Credit System)

Time : 3 Hours]

[Max. Marks : 50

Instructions to the candidates:

- 1) *Attempt any three questions from Q1 to Q6.*
- 2) *Questions 7 and 8 are compulsory.*
- 3) *Draw Figures/Maps wherever necessary.*
- 4) *Figures to the right indicate full marks.*
- 5) *Use of map tencits and calculator is allowed.*

- Q1)** a) Define population Geography [2]
b) Describe the approaches to the study of settlement Geography [4]
c) Discuss the evolution of population Geography. [4]

- Q2)** a) What is settlement pattern? [2]
b) Describe physical factors influencing distribution of settlement [4]
c) Discuss the effect of technology on pattern of settlement [4]

- Q3)** a) What is urban growth? [2]
b) Discuss 'Industrialization is responsible for urban growth'. [4]
c) Describe how improvement in transportation is responsible for urban growth. [4]

- Q4)** a) What is centrality? [2]
b) Critically examine 'Losch Model' [4]
c) Explain the concept of hierarchy. [4]

- Q5)** a) Explain the term population distribution [2]
b) Describe the social factors influencing the distribution of population [4]
c) Describe the political factors influencing the distribution of population [4]

P.T.O.

- Q6)** a) What do you mean by 'Demographic Transition' [2]
b) Discuss the relevance of 'Demographic Transition Model' [4]
c) Describe the stages of Demographic Transition Model. [4]
- Q7)** a) Explain the scope of 'Ricardo's Theory' [5]
b) Explain quantitative aspects of population resource [5]
- Q8)** a) Describe the physical factors influencing the growth of settlements. [5]
b) Explain the genetic approach to the study of settlement Geography. [5]



Total No. of Questions : 6]

SEAT No. :

P2995

[5535]-202

[Total No. of Pages : 1

M.A./M.Sc.

GEOGRAPHY

**Gg-210 : Coastal Geomorphology
(2013 Pattern) (Semester - II) (Credit System)**

Time : 2½ Hours]

[Max. Marks : 38

Instructions to the candidates:

- 1) *Attempt any two questions from Q.No. 1 to 4.*
- 2) *Q.No. 5 and 6 are compulsory.*
- 3) *Draw figures/maps wherever necessary.*
- 4) *Figures to the right indicates full marks.*
- 5) *Use of map, stencils and calculator is allowed.*

- Q1)** a) List various parameters of waves. [2]
b) Give an account of morphological classification of the coast. [4]
c) Discuss the equilibrium theory of tides. [4]
- Q2)** a) What is breakers? [2]
b) Explain spilling and plunging breakers in detail. [4]
c) Give an account of causes and consequences of sea level change. [4]
- Q3)** a) What is shore normal current? [2]
b) Explain the process of formation of fossile beach ridges and beach rocks. [4]
c) Write a note on pathways of sediment transport. [4]
- Q4)** a) What is an amphidromic point? [2]
b) Explain the classification of coastal delta. [4]
c) Write a note on formation and types of shore platforms. [4]
- Q5)** a) Discuss the morphology of mud flats. [4]
b) Write a note on coastal sand dunes. [5]
- Q6)** a) Give an account of component of Coastal system. [4]
b) Discuss the problem of salt intrusion in coastal area. [5]



Total No. of Questions : 6]

SEAT No. :

P2996

[5535]-203

[Total No. of Pages : 1

M.A./M.Sc.

GEOGRAPHY

Gg-211 : Synoptic Climatology

(2013 Pattern) (Semester - II) (Credit System)

Time : 2½ Hours]

[Max. Marks : 38

Instructions to the candidates:

- 1) *Attempt any two questions from Q.No. 1 to 4.*
- 2) *Q.No. 5 and 6 are compulsory.*
- 3) *Figures to the right indicate full marks.*
- 4) *Use of map, stencils is allowed.*

- Q1)** a) What do you mean by climatological synthesis? [2]
b) Describe the weather data reporting system by I.M.D. [4]
c) Explain meteorological code. [4]
- Q2)** a) Explain the nature of synoptic climatology. [2]
b) Describe structure and dissipation of tropical cyclone. [4]
c) Give the characteristics of easterly wave. [4]
- Q3)** a) What do you mean by thunderstorm? [2]
b) What is environmental impact of tornado? [4]
c) Discuss long range forecasting. [4]
- Q4)** a) Give the type of fronts. [2]
b) Describe idealized weather of wave cyclone. [4]
c) Discuss air masses of North America. [4]
- Q5)** a) Describe the principle zones of Frontogenesis & frontolyses. [4]
b) Explain convective precipitation. [5]
- Q6)** a) Describe the importance of satellites in weather forecasting. [4]
b) Give benefits of weather forecasting in disaster prevention and preparedness. [5]



Total No. of Questions : 6]

SEAT No. :

P2997

[5535]-204

[Total No. of Pages : 2

M.A./M.Sc.

GEOGRAPHY

Gg-212 : Agricultural Geography

(2013 Pattern) (Semester - II) (Credit System)

Time : 2½ Hours]

[Max. Marks : 38

Instructions to the candidates:

- 1) *Attempt any two questions from Q.No. 1 to 4.*
- 2) *Q.No. 5 and 6 are compulsory.*
- 3) *Draw figures/maps whenever necessary.*
- 4) *Use of map, stencils is allowed.*
- 5) *Figures to the right indicate full marks.*

- Q1)** a) What are recent approaches to the study of Agricultural Geography?[2]
b) Discuss the interdisciplinary nature of Agricultural Geography. [4]
c) Explain the impact of soils on agriculture. [4]
- Q2)** a) Enlist any two biochemical inputs in agriculture. [2]
b) Explain the influence of irrigation on agriculture. [4]
c) Describe the importance of mechanization in agriculture. [4]
- Q3)** a) What is plantation agriculture? [2]
b) Describe in brief about commercial grain farming. [4]
c) Distinguish between subsistence and commercial agriculture. [4]
- Q4)** a) Define famine. [2]
b) Write in brief about shifting cultivation. [4]
c) Give the characteristics of arid regions. [4]

P.T.O.

- Q5)** a) Explain the Weaver's method of crop combination. [4]
b) Write in brief about Bhatia's method of agricultural efficiency. [5]
- Q6)** a) Give the importance of agriculture in the Indian economy. [4]
b) Discuss the land use survey. [5]



Total No. of Questions : 6]

SEAT No. :

P2998

[5535]-205

[Total No. of Pages : 2

M.A./M.Sc.

GEOGRAPHY

Gg-213 : Population Geography

(2013 Pattern) (Semester - II) (Credit System)

Time : 2½ Hours]

[Max. Marks : 38

Instructions to the candidates:

- 1) *Attempt any two questions from Q.No. 1 to 4.*
- 2) *Q.No. 5 and 6 are compulsory.*
- 3) *Draw figures/maps wherever necessary.*
- 4) *Use of map, stencils is allowed.*
- 5) *Figures to the right indicate full marks.*

Q1) a) Define the term 'under population'. [2]

b) Discuss the factors affecting on Mortality. [4]

c) Discuss Socio-Economic factors influencing population growth. [4]

Q2) a) Define rural-urban migration. [2]

b) Describe Historical factors affecting world population distribution. [4]

c) Describe the approaches to the study of population geography. [4]

Q3) a) What do you mean by sex-ratio? [2]

b) Critically examine Marx's population theory. [4]

c) Explain the importance of population projection in Industrial development. [4]

Q4) a) State any two countries of high fertility level in the world. [2]

b) Discuss the rural-urban composition of population. [4]

c) Explain the laws of migration. [4]

P.T.O.

- Q5)** a) Explain the malthus population theory. [4]
b) Discuss the population policies after the World War - II. [5]
- Q6)** a) Explain the Inter-State migration in detail. [4]
b) Describe the use of population projection in health planning. [5]



Total No. of Questions : 6]

SEAT No. :

P2999

[5535]-206

[Total No. of Pages : 2

M.A./M.Sc.

GEOGRAPHY

Gg-220 : Fluvial Geomorphology

(2013 Pattern) (Semester-II) (Credit System)

Time : 2½ Hours]

[Max. Marks : 38

Instructions to the candidates:

- 1) *Attempt any two questions from Q. 1 to Q. 4.*
- 2) *Question No. 5 and 6 are compulsory.*
- 3) *Draw figures wherever necessary.*
- 4) *Figures to the right indicate full marks.*

- Q1)** a) What is a drainage basin? [2]
- b) Discuss 'drainage basin as a geomorphic unit'. [4]
- c) Explain in brief Glock's model. [4]
- Q2)** a) What is stream power? [2]
- b) Explain the formation of braided channel. [4]
- c) Discuss the modes of sediment transport. [4]
- Q3)** a) Define tractive force. [2]
- b) Explain the factors of fluvial erosion. [4]
- c) Write a note on sediment entrainment in the channel. [4]

P.T.O.

- Q4)** a) Define headward erosion. [2]
b) Explain the concept of grade. [4]
c) Discuss the process of formation of alluvial fans. [4]
- Q5)** a) Explain the process of fluvial erosion. [4]
b) Give an account of downstream hydraulic geometry. [5]
- Q6)** a) Explain the types and location of bed vegetation. [4]
b) Write a note on cross section morphology of a river. [5]



Total No. of Questions : 6]

SEAT No. :

P3000

[5535]-207

[Total No. of Pages : 2

M.A./M.Sc.

GEOGRAPHY

Gg-221 : Monsoon Climatology

(2013 Pattern) (Semester-II) (Credit System)

Time : 2½ Hours]

[Max. Marks : 38

Instructions to the candidates:

- 1) *Attempt any two questions from Q. 1 to Q. 4.*
- 2) *Question number 5 and 6 are compulsory.*
- 3) *Draw figures/maps wherever necessary.*
- 4) *Use of map stencils is allowed.*
- 5) *Figures to the right indicate full marks.*

- Q1)** a) What is Easterly jet? [2]
- b) Explain the economic importance of Monsoon. [4]
- c) Discuss the characteristics of monsoon of east Asia. [4]
- Q2)** a) Define surface winds. [2]
- b) Describe the effect of atmosphere's compressibility on the driving mechanism of monsoon. [4]
- c) Write a note on summer monsoon. [4]
- Q3)** a) What is offshore trough? [4]
- b) Write a note on Tibetan Anticyclone. [2]
- c) Explain the role of monsoon depressions in rainfall distribution. [4]

P.T.O.

- Q4)** a) Mention the ENSO indicators. [4]
b) Explain Walker circulation. [2]
c) Discuss the role of regional conditions on forecasting. [4]
- Q5)** a) Write note on cross equatorial flow. [4]
b) Give an account of historical perspective of monsoon forecasting. [5]
- Q6)** a) Write a note on Nino regions. [4]
b) Discuss the parametric model of forecasting. [5]



Total No. of Questions : 6]

SEAT No. :

P3001

[5535]-208

[Total No. of Pages : 2

M.A./M.Sc.

GEOGRAPHY

Gg-222 : Industrial Geography

(2013 Pattern) (Semester-II) (Credit System)

Time : 2½ Hours]

[Max. Marks : 38

Instructions to the candidates:

- 1) *Attempt any two questions from Q. 1 to Q. 4.*
- 2) *Question No. 5 and 6 are compulsory.*
- 3) *Figures to the right indicate full marks.*
- 4) *Use of map stencils and calculator is allowed.*

- Q1)** a) Define Industrial Geography. [2]
- b) Write assumptions of Weber's model. [4]
- c) Which are the problems of Anglo-America industrial region. [4]
- Q2)** a) Define industrial linkages. [2]
- b) Evaluate Losch's model. [4]
- c) Give details of chemical industry in India. [4]
- Q3)** a) Write two location of cotton and textile industry in India. [2]
- b) Explain the scope of Industrial Geography. [4]
- c) Write note on Critical Isodapane of industries. [4]

P.T.O.

- Q4)** a) Which problems are faced by IT industries. [2]
b) Describe in brief Anglo-America industrial region. [4]
c) Explain the changing pattern of Automobile industry. [4]
- Q5)** a) Explain the economic factors which affects on industrial location. [4]
b) Explain in brief locational factors of industries. [5]
- Q6)** a) Explain the characteristics of centralization of industries. [5]
b) Discuss Isrdas model. [4]



Total No. of Questions : 6]

SEAT No. :

P3002

[5535]-209

[Total No. of Pages : 2

M.A./M.Sc.

GEOGRAPHY

**Gg-223 : Geography of Rural Settlements
(2013 Pattern) (Semester-II) (Credit System)**

Time : 2½ Hours]

[Max. Marks : 38

Instructions to the candidates:

- 1) *Attempt any two questions from Q. 1 to Q. 4.*
- 2) *Question 5 and 6 are compulsory.*
- 3) *Draw figures/maps wherever necessary.*
- 4) *Figures to the right side indicate full marks.*
- 5) *Use of map stencils and calculator is allowed.*

Q1) a) Define dispersion. [2]

b) Describe the evolution of settlement. [4]

c) Discuss the factors affecting the growth of the settlement. [4]

Q2) a) Define range in central place theory. [2]

b) Discuss the social aspects of settlements reflected in place name. [4]

c) Describe the system of land tenancy in rural area. [4]

Q3) a) Define the term 'Migration'. [2]

b) Discuss the social factors affecting on rural home types. [4]

c) Discuss economic organization with in village. [4]

P.T.O.

- Q4)** a) Define seasonal migration. [2]
- b) Explain the Ricardo theory of rural land use. [4]
- c) Describe the building material used in tribal area. [4]
-
- Q5)** a) Describe the functional analysis of service in rural areas. [4]
- b) Explain the historical aspects of settlement reflected in place name. [5]
-
- Q6)** a) Explain the modern forms of rural settlements. [4]
- b) Explain the factors affecting on nucleation. [5]



Total No. of Questions : 6]

SEAT No. :

P3003

[5535]-210

[Total No. of Pages : 1

M.A./M.Sc.

GEOGRAPHY

Gg - 204 : Geography of Tourism

(2013 Course) (Semester - II) (Credit System)

Time : 2½ Hours]

[Max. Marks : 38

Instructions to the candidates:

- 1) *Attempt any two questions from Q1 to Q4.*
- 2) *Question 5 and 6 are compulsory.*
- 3) *Draw figures/maps wherever necessary.*
- 4) *Figures to the right indicate full marks.*
- 5) *Use of map stencil is allowed.*

- Q1)** a) Define National Tourism. [2]
b) Describe the influence of economic factors on tourism. [4]
c) Explain the major activities related to the adventure tourism. [4]
- Q2)** a) Name any four hill stations in India. [2]
b) Describe various measures for promoting tourism in India. [4]
c) Explain the characteristics of ideal tourist guide. [4]
- Q3)** a) Define 'Youth Hostel'. [2]
b) Distinguish between Hotel and Motel. [4]
c) Describe the major problems of international tourism. [4]
- Q4)** a) What are the tourist circuits? [2]
b) Explain the role of globalization in tourism development. [4]
c) Explain the leisure tourism with example. [4]
- Q5)** a) Describe the impact of tourism development on physical environment. [4]
b) Give brief information of various environmental laws related to tourism industry. [5]
- Q6)** a) Describe the role of 'MTDC' in tourism development in Maharashtra. [4]
b) Discuss any two historical tourist places in India. [5]



Total No. of Questions : 6]

SEAT No. :

P3004

[5535]-211

[Total No. of Pages : 1

M.A./M.Sc.

GEOGRAPHY

**Gg - 205 : Geography of Disaster Management
(2013 Pattern) (Semester - II) (Credit System)**

Time : 2½ Hours]

[Max. Marks : 38

Instructions to the candidates:

- 1) *Attempt any two questions from Q1 to Q4.*
- 2) *Question 5 and 6 are compulsory.*
- 3) *Figures to the right indicate full marks.*
- 4) *Use of map stencils is allowed.*

- Q1)** a) What do you mean by Hazard? [2]
b) Explain the impacts of disaster on age. [4]
c) Explain the causes of stampedes. [4]
- Q2)** a) Define cyclones. [2]
b) Discuss causes and types of accidents. [4]
c) Describe the effects of stampedes. [4]
- Q3)** a) What is Risk? [2]
b) Describe role of armed forces in manmade disaster. [4]
c) Describe the role of Civilians in natural disaster. [4]
- Q4)** a) What is home guard? [2]
b) Describe the role of IT in disaster preparedness. [4]
c) Explain the phases of disaster cycle. [4]
- Q5)** a) Describe the drought management in India. [4]
b) Explain trends of urban disaster. [5]
- Q6)** a) Explain the causes and effects of tourism. [4]
b) Describe psychological impact of drought. [5]



Total No. of Questions : 6]

SEAT No. :

P3005

[5535]-212

[Total No. of Pages : 2

M.A./M.Sc.

GEOGRAPHY

**Gg - 206: Geography of Energy Resources
(2013 Pattern) (Semester - II) (Credit System)**

Time : 2½ Hours]

[Max. Marks : 38

Instructions to the candidates:

- 1) *Attempt any two questions from Q.No.1 to 4.*
- 2) *Q.No.5 to 6 are compulsory.*
- 3) *Figures to the right indicate full marks.*
- 4) *Use of map stencils is allowed.*

Q1) a) Define renewable energy resource. [2]

b) Describe pattern of energy consumption in transport sector of India. [4]

c) Distinguish between primary and secondary energy resource. [4]

Q2) a) What is energy crisis? [2]

b) Discuss the modern method of energy conservation in India. [4]

c) Explain the spatial pattern of energy consumption in agricultural sector in India. [4]

Q3) a) What do you mean by conservation of energy? [2]

b) Explain the world consumption of renewable energy resource. [4]

c) Discuss the historical background of energy use and development. [4]

P.T.O.

- Q4)** a) Mention the important coal reserves of India. [2]
b) Explain the types of energy material based resources. [4]
c) Discuss the advantages of non - conventional energy resources over conventional energy resources. [4]
- Q5)** a) Write a note on potential zone of energy conservation. [4]
b) Discuss the world pattern of nuclear energy generation and consumption. [5]
- Q6)** a) Discuss the advantages and disadvantages of nuclear energy. [4]
b) Explain issues related to trade of coal. [5]



Total No. of Questions :6]

SEAT No. :

P3006

[5535]-213

[Total No. of Pages : 1

M.A. / M. Sc.

GEOGRAPHY

Gg - 208 : Geoinformatics - I

(2013 Pattern) (Semester - II) (Credit System)

Time : 2 ½ Hours]

[Max. Marks : 38

Instructions to the candidates:

- 1) Attempt any two questions from Q.No. 1 to 4.*
- 2) Question 5 and 6 are compulsory.*
- 3) Figures to the right indicates full marks.*
- 4) Draw figures/maps wherever necessary.*
- 5) Use of map stencils and calculator is allowed.*

- Q1)** a) What is GIS? [2]
b) Discuss the application of GIS in geography. [4]
c) Explain the components of GIS? [4]
- Q2)** a) What is query analysis in GIS? [2]
b) Explain the DBMS. [4]
c) Difference between spatial & non spatial data. [4]
- Q3)** a) Explain the concepts of layers. [2]
b) Difference between nominal and ratio scales. [4]
c) Explain the important task of GIS. [4]
- Q4)** a) What is spatial relationship ? [2]
b) What is digitization? Explain the different types of digitizers. [4]
c) Explain advantages of DBMS. [4]
- Q5)** a) Explain the local and focal grid operations in spatial data analysis. [4]
b) What are the errors in digitization? [5]
- Q6)** a) Write a note on raster data compaction techniques. [4]
b) Discuss the map Algebra in data analysis. [5]



Total No. of Questions : 6]

SEAT No. :

[Total No. of Pages : 2

P3007

[5535]-214

M.A./M.Sc.

GEOGRAPHY

Gg - 209: Geoinformatics-II

(2013 Pattern) (Semester - II) (Credit System)

Time : 2½ Hours]

[Max. Marks : 38

Instructions to the candidates:

- 1) *Attempt any two questions from Q.No. 1 to 4.*
- 2) *Q.No.5 and 6 are compulsory.*
- 3) *Figures to the right indicates full marks.*
- 4) *Draw figures/maps wherever necessary.*
- 5) *Use of map stencils and calculator is allowed.*

Q1) a) What is the high resolution image? [2]

b) Discuss the sources of primary and secondary data. [4]

c) Explain the process of Remote sensing. [4]

Q2) a) What is the wavelength and frequency of EMR? [2]

b) Explain the term atmospheric window. [4]

c) Explain the electromagnetic spectrum with appropriate diagram. [4]

Q3) a) What is aerial photography? [2]

b) What do you know about flight planning? [4]

c) Discuss the Geometric characteristic of aerial photograph. [4]

P.T.O.

- Q4)** a) What do know about spectral signatures? [2]
b) Difference between Geosynchronous and sun synchronous orbits. [4]
c) What is digital data? Explain different data formats. [4]
- Q5)** a) Difference between along track and across track scanning. [4]
b) Discuss the elements of visual interpretation. [5]
- Q6)** a) Explain the different segments of GPS with suitable diagram. [4]
b) Discuss the types of resolutions. [5]



Total No. of Questions : 6]

SEAT No. :

P3008

[5535]-301

[Total No. of Pages : 2

M.A./M.Sc.

GEOGRAPHY

**Gg-301 : Geography of India with Special Reference to
Maharashtra
(2013 Pattern) (Semester - III) (Credit System)**

Time : 2½ Hours]

[Max. Marks : 38

Instructions to the candidates:

- 1) *Attempt any two questions from Q.No. 1 to 4.*
- 2) *Q.No. 5 and 6 are compulsory.*
- 3) *Figures to the right indicate full marks.*
- 4) *Use of map, stencils and calculator is allowed.*
- 5) *Draw figures/map whenever necessary.*

- Q1)** a) Name the left tributaries of the Ganga. [2]
b) Write the environmental importance of green-revolution in India. [4]
c) Describe the age-sex composition of population in India. [4]
- Q2)** a) What do you mean by geographical location? [2]
b) Give an account of developed regions in India. [4]
c) Describe the growth of population in India. [4]
- Q3)** a) Enlist the power resources in India. [2]
b) Describe the power resources in Maharashtra. [4]
c) Explain the mechanism of south-west Monsoons in India. [4]
- Q4)** a) What is soil? [2]
b) Explain the production of food crops in Maharashtra. [4]
c) Describe the problems related to industrial development in Maharashtra. [4]

P.T.O.

- Q5)** a) Discuss the causes of deforestation. [4]
b) Describe the physiography of the peninsular plateau in India. [5]
- Q6)** a) Describe the major forest types in India. [4]
b) Describe the major soil types and their distribution in India. [5]



Total No. of Questions : 6]

SEAT No. :

P3009

[5535]-302

[Total No. of Pages : 2

M.A./M.Sc.

GEOGRAPHY

**Gg-310 : Tropical Geomorphology
(2013 Pattern) (Semester-III) (Credit System)**

Time : 2½ Hours]

[Max. Marks : 38

Instructions to the candidates:

- 1) Attempt any two questions from Q. 1 to Q. 4.*
- 2) Questions 5 and 6 are compulsory.*
- 3) Draw figures/maps wherever necessary.*
- 4) Figures to the right indicate full marks.*
- 5) Use of map stencils is allowed.*

- Q1)** a) Define tropical environment. [2]
- b) Explain the factors influencing tropical weathering. [4]
- c) Describe the lateritic profile in the tropics. [4]
- Q2)** a) Define weathering. [2]
- b) Explain types of mass-movements. [4]
- c) Discuss the process of landform development on lateritic terrain. [4]
- Q3)** a) Define denudation. [2]
- b) Explain biotic factor's influencing tropical weathering. [4]
- c) Describe the solubility and mobility of minerals in the tropics. [4]

P.T.O.

- Q4)** a) Describe stream erosion in the tropics. [2]
- b) Explain the formation and types of planation surfaces. [4]
- c) Describe the process of slope wash. [4]
-
- Q5)** a) Explain the slope and valley forms in the tropics. [4]
- b) Describe the morphology of the planation surfaces. [5]
-
- Q6)** a) Distinguish between the peneplain and etchplains. [4]
- b) Give an account of nature of change in climate and vegetation during quaternary period. [5]



Total No. of Questions : 6]

SEAT No. :

P3010

[5535]-303

[Total No. of Pages : 2

M.A./M.Sc.

GEOGRAPHY

Gg-311 : Applied Climatology

(2013 Pattern) (Semester-III) (Credit System)

Time : 2½ Hours]

[Max. Marks : 38

Instructions to the candidates:

- 1) *Attempt any two questions from question number 1 to 4.*
- 2) *Question number 5 and 6 are compulsory.*
- 3) *Figures to the right indicate full marks.*
- 4) *Use of map stencil is allowed.*
- 5) *Draw figures/maps wherever necessary.*

- Q1)** a) What is urban heat island? [2]
- b) Give the significance of Remote Sensing in Agriculture. [4]
- c) Explain the causes of urban air pollution. [4]
- Q2)** a) Define evapotranspiration. [2]
- b) Discuss the relationship between climate and soil. [4]
- c) Describe the internal causes of climate change. [4]
- Q3)** a) What do you mean by cloud seeding. [2]
- b) Give an account of artificial control of plant environment. [4]
- c) Differentiate between rain and hail. [4]

P.T.O.

- Q4)** a) Name the instruments to measure precipitation. [2]
- b) Describe the relationship between climate and engineering. [4]
- c) Give an account of climate and clothing. [4]
-
- Q5)** a) Explain the effects of climate on air transport. [4]
- b) Explain the Plate Techtonics Theory of climate change. [5]
-
- Q6)** a) Describe the significance of Applied Climatology. [4]
- b) Discuss the impact of climate on industry. [5]



Total No. of Questions : 6]

SEAT No. :

P3011

[5535]-304

[Total No. of Pages : 2

M.A./M.Sc.

GEOGRAPHY

**Gg-312 : Trade and Transport Geography
(2013 Pattern) (Semester-III) (Credit System)**

Time : 2½ Hours]

[Max. Marks : 38

Instructions to the candidates:

- 1) *Attempt any two questions from Q. 1 to Q. 4.*
- 2) *Question No. 5 and 6 are compulsory.*
- 3) *Figures to right side indicate full marks.*
- 4) *Use of map stencils is allowed.*
- 5) *Draw the figures/map wherever necessary.*

- Q1)** a) What do you mean by transport? [2]
- b) Explain the regional approach to the study of trade and transport geography. [4]
- c) What are the climatic factors associated with the growth of air transport. [4]
- Q2)** a) Define Waterways. [2]
- b) Explain the factors associated with the growth of road transport. [4]
- c) Explain the political factors associated with the growth of waterways. [4]
- Q3)** a) Write the types of trade. [2]
- b) Explain in the Gravity model in detail. [4]
- c) Explain the significance of transport in urban area. [4]

P.T.O.

- Q4)** a) Write the modes of transport. [2]
b) Describe the Vehicular Pollution. [4]
c) Write the economic merits of trade in detail. [4]
- Q5)** a) Explain the history of treaties of international trade. [4]
b) What are geographical factors influencing the transport. [5]
- Q6)** a) Describe the factors affecting international trade. [4]
b) Discuss the prospects and problems of international trade. [5]



Total No. of Questions : 6]

SEAT No. :

P3012

[5535]-305

[Total No. of Pages : 2

M.A./M.Sc.

GEOGRAPHY

Gg-313 : Urban Geography

(2013 Pattern) (Semester-III) (Credit System)

Time : 2½ Hours]

[Max. Marks : 38

Instructions to the candidates:

- 1) Attempt any two questions from Question No. 1 to 4.*
- 2) Question No. 5 and 6 are compulsory.*
- 3) Draw figures/maps wherever necessary.*
- 4) Figures to the right indicate full marks.*

Q1) a) Define 'Urban Geography'. [2]

b) Discuss the Park and Burgess Model of urban morphology. [4]

c) Write the significance of Urban Geography. [4]

Q2) a) What do you mean by urban morphology. [2]

b) Explain the nature of study of urban geography. [4]

c) Describe the characteristics of CBD. [4]

Q3) a) Enlist the urban functions. [2]

b) Explain the criteria used to demarcate the city region. [4]

c) Describe the characteristics of rural-urban fringe. [4]

P.T.O.

- Q4)** a) What do you mean by urban hierarchy? [2]
- b) Discuss the functional classification of towns by C.D. Harris. [4]
- c) Explain the density of population in towns and cities. [4]
-
- Q5)** a) Explain the contemporary factors of urbanisation. [4]
- b) Discuss the scarcity of housing and growth of slums in towns and cities. [5]
-
- Q6)** a) Discuss the rank-size rule and rank-size relationship. [4]
- b) Write a note on elements of city plan. [5]



Total No. of Questions : 6]

SEAT No. :

P3013

[5535]-306

[Total No. of Pages : 2

M.A./M.Sc.

GEOGRAPHY

**Gg - 320: Multivariate Statistics
(2013 Pattern) (Semester - III) (Credit System)**

Time : 2½ Hours]

[Max. Marks : 38

Instructions to the candidates:

- 1) *Attempt any two questions from Q.No.1 to 4.*
- 2) *Q.No.5 and 6 are compulsory.*
- 3) *Figures to the right indicate full marks.*
- 4) *Use of statistical tables and calculators is allowed.*

Q1) a) Define the terms matrix and elements of a matrix. **[2]**

b) Find $A * B$ **[4]**

$$A = \begin{bmatrix} 25 & 653 & 426 \\ 832 & 138 & 386 \\ 886 & 249 & 721 \end{bmatrix} \quad B = \begin{bmatrix} 631 & 689 & 735 \\ 798 & 248 & 698 \\ 889 & 532 & 777 \end{bmatrix}$$

c) Find the unknowns by solving the given simultaneous equations by using Cramer's Rule II. **[4]**

$$2x + 5y - 3z = 15$$

$$7x + y - 2z = 12$$

$$8x - y + 5z = 27$$

Q2) a) What is data reduction and simplification in multivariate statistics. **[2]**

b) Using the data given below find A_0 , A_1 and A_2 determinants. **[4]**

X 2 5 6 8 10 12 13 16 20

Y 5 8 12 16 20 15 10 4 1

c) From the determinants found in Q.2(b), obtain the second degree bivariate regression equation and interpret results. **[4]**

P.T.O.

- Q3)** a) Define the term explained variance. [2]
 b) Find A_0 , A_1 and A_2 determinants from the information given below [4]
- | | X1 | X2 | X3 | n = 08 |
|------------|--------|---------|-------|--------|
| Mean | 3.0625 | 0.4 | 8.0 | |
| Variance | 3.9023 | 0.0325 | 8.25 | |
| Covariance | X1X2 | X1X3 | X2X3 | |
| | 0.0375 | -0.6875 | 0.125 | |
- c) Using the determinants obtained in Q.3 (b), Compute a multiple regression equation, explained variance and interpret the results. [4]
- Q4)** a) What are factor scores? [2]
 b) Using the following matrix obtain the first factor loadings matrix. [4]
- | | X1 | X2 | X3 | X4 | X5 |
|----|-----|------|------|-------|------|
| X1 | 1.0 | 0.05 | 0.38 | -0.36 | 0.85 |
| X2 | | 1.0 | 0.58 | 0.94 | 0.73 |
| X3 | | | 1.0 | 0.28 | 0.32 |
| X4 | | | | 1.0 | 0.78 |
| X5 | | | | | 1.0 |
- c) Using the factor loadings obtained from Q.4 (b), compute eigen vector, explained variance and interpret the results. [4]
- Q5)** a) Following data records the water levels in meters at different locations in a region. Fit a suitable trend surface equation. [4]
- | | | | | | | | | | | |
|---|----|-----|-----|-----|----|-----|-----|-----|-----|----|
| X | 20 | 20 | 30 | 40 | 50 | 50 | 50 | 70 | 80 | 90 |
| Y | 5 | 7 | 6 | 8 | 5 | 7 | 9 | 8 | 9 | 7 |
| Z | 2 | 2.1 | 2.5 | 3.3 | 3 | 3.2 | 3.8 | 4.2 | 4.5 | 4 |
- b) Obtain explained variance, level of significance (0.05 level) for the result obtained from Q.5 (a) and interpret results. [5]
- Q6)** a) Using the correlation matrix given in Q.4 (b), compute the first principal component loadings. [4]
 b) From the principal loadings obtained in the Q.6 (a), find eigen value, explained variance and interpret the results. [5]



Total No. of Questions : 6]

SEAT No. :

P3014

[5535]-307

[Total No. of Pages : 1

M.A/M.Sc

GEOGRAPHY

Gg - 321: Political Geography

(2013 Pattern) (Semester - III) (Credit System)

Time : 2½ Hours]

[Max. Marks : 38

Instructions to the candidates:

- 1) *Attempt any two questions from Q.No.1 to 4.*
- 2) *Q.No.5 and 6 are compulsory.*
- 3) *Figures to the right indicate full marks.*
- 4) *Use of map stencils is allowed.*
- 5) *Draw figures/Maps wherever necessary.*

- Q1)** a) Define nation. [2]
b) Explain the role of geography in politics. [4]
c) Distinguish between state and Nation. [4]
- Q2)** a) What is genetic boundary? [2]
b) Explain the Mahan's sea power theory. [4]
c) Write a note on changing political map of India. [4]
- Q3)** a) Define resources. [2]
b) Explain the geopolitical significance of Indian Ocean. [4]
c) Explain the functional approach to the study of political geography. [4]
- Q4)** a) Define heartland. [2]
b) Write a note on 'Unity in diversity'. [4]
c) Give an account of resource management with respect to power of nation. [4]
- Q5)** a) Explain the geostrategic view of Mackinder? [4]
b) Distinguish between frontier and boundary. [5]
- Q6)** a) Explain the scope of political geography. [4]
b) Discuss centrifugal and centripetal forces with suitable examples. [5]



P.T.O.

Total No. of Questions : 6]

SEAT No. :

[Total No. of Pages : 2

P3015

[5535]-308

M.A./M.Sc.

GEOGRAPHY

Gg - 322: Geography of Soils

(2013 Pattern) (Semester - III) (Credit System)

Time : 2½ Hours]

[Max. Marks : 38

Instructions to the candidates:

- 1) *Attempt any two questions from Q.No.1 to 4.*
- 2) *Q.No.5 and 6 are compulsory.*
- 3) *Figures to the right indicate full marks.*
- 4) *Draw figures/Maps wherever necessary.*
- 5) *Use of map stencils and calculator is allowed.*

Q1) a) Define soil geography. [2]

b) How the vegetation and topography affect soil formation. [4]

c) Explain the importance of land capability classification. [4]

Q2) a) What are the incorrect methods of farming? [2]

b) Discuss the impact of deforestation and overgrazing on soil degradation. [4]

c) Explain the process of humus formation. [4]

Q3) a) What do you mean by soil structure? [2]

b) Discuss the importance of organic matter in soil profile. [4]

c) What is the basis of soil fertility decline? [4]

Q4) a) What is soil permeability? [2]

b) Write an account of bio-chemical properties of soil. [4]

c) Discuss the impact of salinization and soil contamination on soil giving suitable examples. [4]

P.T.O.

- Q5)** a) Discuss any two physical properties of soil. [4]
b) Describe various soil horizons in terms of different processes. [5]
- Q6)** a) Give an account on 'United states soil classification'. [4]
b) Write a explanatory note on land suitability classification. [5]



Total No. of Questions :6]

SEAT No. :

P3016

[5535]-309

[Total No. of Pages : 1

M. A. / M. Sc.

GEOGRAPHY

**Gg-303 : Research Method In Geography.
(2013-Pattern) (Semester - III) (Credit System)**

Time : 2: ½ Hours]

[Max. Marks : 38

Instructions to the candidates:

- 1) *Attempt any two questions from question no. 1 to 4*
- 2) *Question number 5 and 6 are compulsory.*
- 3) *Figures to the right indicate full marks.*
- 4) *Use of map stencils is allowed.*

- Q1)** a) Define drainage basin. [2]
b) Give an account of database creation from an aerial photograph. [4]
c) Explain the methods of database creation for physical features from SOI toposheets. [4]
- Q2)** a) What is geographical data? [2]
b) Write the principles of theodolite survey. [4]
c) Write a note on 'geometry of an aerial photograph'. [4]
- Q3)** a) What is relative height? [2]
b) Discuss the applications of bivariate correlation analysis in geographical research. [4]
c) Explain the use of drainage basin demarcation and terrain cross profiles. [4]
- Q4)** a) List the components of field work. [2]
b) Discuss the importance of field measurement and mapping in primary data collection. [4]
c) Explain the application of 'chi' square test as a non parametric test. [4]
- Q5)** a) Write a note on use of GIS in geographical research. [4]
b) Discuss the technique of report writing with reference to conclusion and references. [5]
- Q6)** a) Explain the writing of analytical part in scientific report. [4]
b) Write a note on indexing system of SOI toposheet. [5]



Total No. of Questions : 6]

SEAT No. :

P3017

[5535]-310

[Total No. of Pages : 2

M.A./M.Sc.

GEOGRAPHY

**Gg-304 : Social and Cultural Geography
(2013 Pattern) (Semester - III) (Credit System)**

Time : 2½ Hours]

[Max. Marks : 38

Instructions to the candidates:

- 1) *Attempt any two questions from Q.No. 1 to 4.*
- 2) *Q.No. 5 and 6 are compulsory.*
- 3) *Draw figures/maps whenever necessary.*
- 4) *Figures to the right indicate full marks.*
- 5) *Use of map, stencils is allowed.*

- Q1)** a) Define cultural geography. [2]
b) Describe the cultural regions in India. [4]
c) Explain the impact of technology on human settlements. [4]
- Q2)** a) Enlist the types of social groups. [2]
b) Write a note on 'Human Development Index'. [4]
c) Describe the role of religion and caste in culture. [4]
- Q3)** a) What is theoretical space? [2]
b) Describe the subject matter of social geography. [4]
c) Explain the concept of materialism. [4]
- Q4)** a) What is cultural diversity? [2]
b) Explain the role of Education in economic transformation. [4]
c) Describe the social areas in urban settlements. [4]

P.T.O.

- Q5)** a) Explain the methods of measuring well-being of the society. [4]
b) Discuss the rural-urban contrasts in health and education. [5]
- Q6)** a) Explain the process of Globalization. [4]
b) Explain the impact of migration on urbanisation. [5]



Total No. of Questions : 6]

SEAT No. :

P3018

[5535]-311

[Total No. of Pages : 2

M.A./M.Sc.

GEOGRAPHY

Gg - 306 : Geoinformatics - III

(2013 Pattern) (Semester - III) (Credit System)

Time : 2½ Hours]

[Max. Marks : 38

Instructions to the candidates:

- 1) *Attempt any two questions from question no. 1 to 4.*
- 2) *Question number 5 and 6 are compulsory.*
- 3) *Draw figures/maps wherever necessary.*
- 4) *Figures to the right indicate full marks.*
- 5) *Use of map stencils is allowed.*

Q1) a) What do you understand by Grid operation? [2]

b) Explain zonal grid operations. [4]

c) What is spatial analysis? State any three methods of spatial analysis. [4]

Q2) a) What are the full forms for DEM, DSM, DTM and TIN. [2]

b) Discuss the single layer operations as a analytical tasks. [4]

c) What are GCP? Explain its importance in Georeferencing. [4]

Q3) a) Mention types of errors in image rectification. [2]

b) Explain any two image enhancement techniques. [4]

c) Explain what is Digital Elevation Model (DEM). [4]

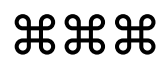
Q4) a) What do you understand by resampling. [2]

b) Write a note on 'surface analysis'. [4]

c) Describe the main characteristics of unsupervised classification technique. [4]

P.T.O.

- Q5)** a) Write a brief note on ‘mapping accuracy’. [4]
b) Explain the application of spatial interpolation. [5]
- Q6)** a) Discuss parallel-piped and MXL classifiers in digital image processing. [4]
b) Give a brief account on ‘sources of distortions in digital remote sensed data.’ [5]



Total No. of Questions : 6]

SEAT No. :

P3020

[5535]-402

[Total No. of Pages : 2

M.A./M.Sc.

GEOGRAPHY

**Gg-402 : Principles of Remote Sensing and GIS
(2013 Pattern) (Semester - IV) (Credit System)**

Time : 2½ Hours]

[Max. Marks : 38

Instructions to the candidates:

- 1) *Attempt any two questions from Q.No. 1 to Q.No. 4.*
- 2) *Q.No. 5 and 6 are compulsory.*
- 3) *Draw figures/maps wherever necessary.*
- 4) *Figures to the right indicate full marks.*
- 5) *Use of map stencils is allowed.*

- Q1)** a) What do you mean by Electromagnetic radiation? [2]
b) Explain the concept of remote sensing with examples. [4]
c) Differentiate between raster and vector data model. [4]
- Q2)** a) What are the active sensors? [2]
b) Describe the history of GIS. [4]
c) Describe the various types of remote sensing platforms. [4]
- Q3)** a) What do you mean by spatial resolution? [2]
b) Explain the concept of GIS. [4]
c) Write in brief the information of LANDSAT satellite. [4]
- Q4)** a) What do you mean by NOAA? [2]
b) Give an account of spatial query in spatial data analysis. [4]
c) Discuss the data base design. [4]

P.T.O.

- Q5)** a) Discuss the techniques of visual interpretation. [4]
b) Differentiate between whiskbroom and pushbroom scanners. [5]
- Q6)** a) Write a note on 'integration of RS and GIS'. [4]
b) Explain the basic concept and principles of hyperspectral sensing. [5]



Total No. of Questions : 6]

SEAT No. :

[Total No. of Pages : 2

P3021

[5535]-403

M.A./M.Sc.

GEOGRAPHY

Gg-411 : Geostatistics

(2013 Pattern) (Semester-IV) (Credit System)

Time : 2½ Hours]

[Max. Marks : 38

Instructions to the candidates:

- 1) Attempt any two questions from Q. 1 to Q. 4.*
- 2) Question 5 and 6 are compulsory.*
- 3) Draw figures wherever necessary.*
- 4) Figures to the right indicate full marks.*

- Q1)** a) Define Geostatistics. [2]
- b) Explain the types of spatial data used in geostatistics. [4]
- c) Explain the terms stationarity and region of stationarity. [4]
- Q2)** a) What do you mean by sampling in spatial data analysis. [2]
- b) Explain any two sampling techniques used in geostatistics. [4]
- c) Describe the role of correlation in Exploratory Spatial Data Analysis (ESDA). [4]
- Q3)** a) Define autocorrelation. [2]
- b) Give the differentiating characteristics of omni-directional and directional corelogram. [4]
- c) Explain the concept of autocovariance. [4]

P.T.O.

- Q4)** a) Name any four bivariate descriptors used in ESDA. [2]
- b) Explain the concept of Markov Chain Analysis. [4]
- c) Give an account of uses of Markov Chain Analysis in Earth Sciences. [4]
-
- Q5)** a) Write a note on types of interpolation techniques. [4]
- b) Describe the characteristics of spline and kriging. [5]
-
- Q6)** a) Explain spatial interpolation in geostatistics. [4]
- b) Write a note on cluster analysis. [5]



Total No. of Questions : [6]

SEAT No. :

[Total No. of Pages : 1]

P3022

[5535]-404

M.A./M.Sc.

GEOGRAPHY

**Gg - 420 : Regional Planning and Development
(2013 Course) (Semester - IV) (Credit System)**

[Time : 2½ Hours]

[Max. Marks : 38]

Instructions to the candidates:

- 1) *Attempt any two questions from Q1 to Q4.*
- 2) *Questions 5 and 6 are compulsory.*
- 3) *Figures to the right indicate full marks.*
- 4) *Use of map stencil is allowed.*
- 5) *Draw figures/maps wherever necessary.*

- Q1)** a) Mention any two approaches in regional planning. [2]
b) Discuss various approaches of regional planning. [4]
c) Name the various types of a 'region'. [4]
- Q2)** a) Define concept of 'planning region'. [2]
b) Explain measures of regional development. [4]
c) Discuss the role of geography in regional planning. [4]
- Q3)** a) What do you mean by diagnostic surveys? [2]
b) Explain how methodology and techniques are associated with regional planning. [4]
c) Give an account of new trends in regional planning. [4]
- Q4)** a) Explain the planning strategies for developed countries. [2]
b) Discuss the case studies of concentration versus dispersal. [4]
c) Bring out salient features of regional policies of India. [4]
- Q5)** a) Write a note on 'multi-level planning' [4]
b) Discuss the experience of regional planning in India. [5]
- Q6)** a) Explain in detail the 'concept regionalisation'. [4]
b) Discuss 'Hilly areas as a planning unit'. [5]



Total No. of Questions : 6]

SEAT No. :

P3023

[5535]-405

[Total No. of Pages : 1

M.A./M.Sc.

GEOGRAPHY

**Gg - 421 : Geography of Water Resources
(2013 Course) (Semester - IV) (Credit System)**

Time : 2½ Hours]

[Max. Marks : 38

Instructions to the candidates:

- 1) *Attempt any two questions from Q1 to Q4.*
- 2) *Question No. 5 and 6 are compulsory.*
- 3) *Figures to the right indicate full marks.*
- 4) *Use of map stencil is allowed.*
- 5) *Draw figures/maps wherever necessary.*

- Q1)** a) What do you mean by evapotranspiration? [2]
b) Explain how the water resources get renewed through hydrological cycle? [4]
c) Describe the process of percolation and run off. [4]
- Q2)** a) Give an account of world's surface water resources. [2]
b) Write a note on industrial use of water. [4]
c) Explain soil-water-crop relationship. [4]
- Q3)** a) What are different methods of irrigation? [2]
b) Discuss the importance of soil water conservation. [4]
c) Describe abundance and scarcity of water resources. [4]
- Q4)** a) Discuss the integrated basin planning. [2]
b) Describe water pollution and treatment. [4]
c) Give an account of flood management practices. [4]
- Q5)** a) Explain afforestation and land use regulation as measures of water management. [4]
b) Briefly describe special remedies to increase ground water level. [5]
- Q6)** a) Discuss the 'Krishna Water Dispute'. [4]
b) Critically examine 'Ganga-Cauveri proposed Garland project'. [5]



Total No. of Questions : 6]

SEAT No. :

P3024

[Total No. of Pages : 2

[5535] - 406
M.A./M.Sc.
GEOGRAPHY
Gg - 422 : Biogeography
(2013 Pattern) (Credit System) (Semester - IV)

Time : 2½ Hours]

[Max. Marks : 38

Instructions to the candidates:

- 1) *Attempt any two questions from questions no. 1 to 4.*
- 2) *Question numbers 5 and 6 are compulsory.*
- 3) *Draw figures/maps wherever necessary.*
- 4) *Figures to the right indicate full marks.*
- 5) *Use of map stencils is allowed.*

- Q1)** a) What is the meaning of biomes and life forms? [2]
b) Write a note on history of the biogeography. [4]
c) What are the major biomes of the world? Describe the biomes of Mediterranean scrub regions in detail. [4]
- Q2)** a) What do you mean by limits of distribution? [2]
b) Describe desert scrub biomes with respect to regional climate and species richness. [4]
c) What is the difference between endemic and relict plant species? [4]
- Q3)** a) What is the meaning of dispersal and colonization? [2]
b) Discuss the distribution patterns of habitats and micro-habitats. [4]
c) Describe the evolution of life on earth surface. [4]

P.T.O.

- Q4)** a) What is the meaning of disjunction pattern? [2]
b) Describe the major zoogeographical provinces in the world. [4]
c) Write a note on the 'idea of continental drift'. [4]
- Q5)** a) Write note on 'ecosystem'. [4]
b) Discuss life on islands with respect to problems of access. [5]
- Q6)** a) Explain physical limitation of life based on biomes. [4]
b) Give an account of Eco-geographical trends. [5]



Total No. of Questions : 6]

SEAT No. :

P3025

[Total No. of Pages : 2

[5535] - 407
M.A./M.Sc.
GEOGRAPHY
Gg 423 : OCEANOGRAPHY
(Credit System) (Semester - IV) (2013 Pattern)

Time : 2½ Hours]

[Max. Marks : 38

Instructions to the candidates:

- 1) *Attempt any two questions from question no. 1 to 4.*
- 2) *Question numbers 5 and 6 are compulsory.*
- 3) *Draw figures/maps wherever necessary.*
- 4) *Figures to the right indicates full marks.*

- Q1)** a) Give the names of modern oceanographers. [2]
- b) Define oceanography and discuss the contribution of oceanographers in the subject. [4]
- c) Describe factors affecting density of sea water. [4]
- Q2)** a) What are the oceanic ridges? [2]
- b) Explain types and process of breaking of waves. [4]
- c) Discuss the continental drift with reference to origin of ocean basins. [4]
- Q3)** a) Define tsunami wave. [2]
- b) Explain origin and composition of sea salt. [4]
- c) Write a note on formation of sea waves and swell. [4]

P.T.O.

- Q4)** a) What is tidal bore? [2]
b) Explain the properties of sea water with reference to temperature. [4]
c) Explain the effects of tides on coastal area. [4]
- Q5)** a) Explain wave refraction. [4]
b) Discuss the equilibrium theory of tides. [5]
- Q6)** a) Explain the circulation of ocean currents in pacific ocean. [4]
b) Write a note on tidal currents and their channels. [5]



Total No. of Questions : 6]

SEAT No. :

P3026

[Total No. of Pages : 2

[5535] - 408

M.A./M.Sc.

GEOGRAPHY

Gg : 424 : NATURAL AND MAN MADE HAZARDS

(2013 Pattern) (Semester - IV) (Credit System)

Time : 2½ Hours]

[Max. Marks : 38

Instructions to the candidates:

- 1) Attempt any two questions from Question No. 1 to 4.*
- 2) Question No. 5 and 6 are compulsory.*
- 3) Draw Figures/Maps wherever necessary.*
- 4) Figures to the right indicate full marks.*

Q1) a) What do you mean by high magnitude floods? **[2]**

b) Explain the causes of high magnitude and flash floods. **[4]**

c) Describe the effects of droughts. **[4]**

Q2) a) Define geomorphic hazards. **[2]**

b) Give an account of hazardous effects of erosion and deposition. **[4]**

c) Describe the effects of tsunamis. **[4]**

Q3) a) What is biological hazard? **[2]**

b) Explain the factors contributing to man-made hazards. **[4]**

c) Describe the causes and effects of forest fire. **[4]**

P.T.O.

- Q4)** a) Define global warming. [2]
b) Discuss how the rivers in India with religious importance are getting polluted. [4]
c) Give a brief account of structural measures of disasters. [4]
- Q5)** a) Classify the hazards and disasters. [4]
b) Discuss risk and risk assessment. [5]
- Q6)** a) Give a brief account of effects of dust storms. [4]
b) Discuss the ecological disturbances. [5]



Total No. of Questions : 5]

SEAT No. :

P3027

[Total No. of Pages : 2

[5535] - 409

M.A./M.Sc.

GEOGRAPHY

**Gg : 441 : PRINCIPLES OF REGIONAL GEOGRAPHY AND
PROJECT WORK**

(2013 Pattern) (Semester - IV) (Credit System)

Time : 2½ Hours]

[Max. Marks : 25

Instructions to the candidates:

- 1) *Attempt any two questions from Question No. 1 to 3.*
- 2) *Attempt any one question from Question No. 4 to 5.*
- 3) *Draw Figures/Maps wherever necessary.*
- 4) *Figures to the right indicate full marks.*
- 5) *Use of map stencils and calculator is allowed.*

- Q1)** a) What are the bases of regionalisation in regional geography? [02]
b) Describe regional approach in regional geography. [04]
c) Discuss the criticism of Gunnar Myrdal's cumulative causation. [04]
- Q2)** a) What is growth pole? Give examples. [02]
b) Explain meso-level planning. [04]
c) Explain the basic concept of central place theory. [04]
- Q3)** a) What is K4 principle of central place theory? [02]
b) Explain the applications of growth pole theory in the Indian context. [04]
c) Explain the concept of planning through regionalisation. [04]
- Q4)** a) Explain the concept of development and its impact on disparities. [02]
b) Describe the effective solutions to the regional imbalance. [03]
- Q5)** a) Differentiate between formal region and functional region. [02]
b) Describe the demographic causes of regional disparities. [03]



P.T.O.

Total No. of Questions : 6]

SEAT No. :

[Total No. of Pages : 2

P3028

[5535]-410

M.A./M.Sc.

GEOGRAPHY

**Gg - 404: Geography of Food Security of India
(2013 Pattern) (Semester - IV) (Credit System)**

Time : 2½ Hours]

[Max. Marks : 38

Instructions to the candidates:

- 1) *Attempt any two questions from Q.No.1 to 4.*
- 2) *Q.No.5 and 6 are compulsory.*
- 3) *Figures to the right side indicate full marks.*
- 4) *Use of map stencils is allowed.*
- 5) *Draw the figures/maps wherever necessary.*

- Q1)** a) Define agricultural productivity? [2]
- b) Explain food availability? [4]
- c) Describe the concept of accessibility in food security. [4]
- Q2)** a) What is food economics? [2]
- b) Describe the causes of hunger in India? [4]
- c) What are the effects of land degradation on food crops? [4]
- Q3)** a) Explain the difference between food and cash crops. [2]
- b) Explain the land holding in India. [4]
- c) Describe the economic factors affecting food stability. [4]

P.T.O.

- Q4)** a) Define food sovereignty. [2]
b) Describe the distribution of major food crops in India. [4]
c) Describe the detriments of food security Bill : 2013. [4]
- Q5)** a) Discuss the role of print media in food security. [4]
b) Discuss gender and food security in India. [5]
- Q6)** a) Explain how interdisciplinary approach will be useful in knowing multi-dimensions of food security. [4]
b) Describe the food security condition in India on state level. [5]



Total No. of Questions :6]

SEAT No. :

P3029

[5535]-411

[Total No. of Pages : 1

M.A. / M. Sc.

GEOGRAPHY

Gg-405 : Geography of Health

(2013 Pattern) (Semester - IV) (Credit System)

Time : 2 ½ Hours]

[Max. Marks : 38

Instructions to the candidates:

- 1) *Attempt any two questions from Q.No.1 to Q.No.4.*
- 2) *Q.No.5 and 6 are compulsory.*
- 3) *Draw figures / maps wherever necessary.*
- 4) *Figures to the right indicate full marks.*

- Q1)** a) What is ecology? [2]
b) Explain the development of Geography of Health. [4]
c) Discuss the various geographical factors affecting human health. [4]
- Q2)** a) List any two challenges of Geography of Health. [2]
b) Explain the causes of diseases. [4]
c) Discuss the deficiency disorders. [4]
- Q3)** a) What is diffusion of diseases? [2]
b) Discuss various customs affecting human health. [4]
c) Explain impact of air pollution on human health in urban area. [4]
- Q4)** a) What is communicable diseases? [2]
b) Describe various problems associated with malnutrition. [4]
c) Explain the genetic diseases? [4]
- Q5)** a) Describe different social practises affects human health. [4]
b) Discuss the health problems of tribal people. [5]
- Q6)** a) Give the WHO classification of diseases. [4]
b) Discuss the planning of health care centres in India. [5]



Total No. of Questions : 6]

SEAT No. :

[Total No. of Pages : 2

P3030

[5535]-412

M.A./M.Sc.

GEOGRAPHY

**Gg - 407: Regional Geography of SAARC Countries
(2013 Pattern) (Semester - IV) (Credit System)**

Time : 2½ Hours]

[Max. Marks : 38

Instructions to the candidates:

- 1) *Attempt any two questions from Q.No.1 to 4.*
- 2) *Q.Nos.5 and 6 are compulsory.*
- 3) *Figures to the right indicate full marks.*
- 4) *Use of map stencils is allowed.*
- 5) *Draw figures/Maps wherever necessary.*

Q1) a) What is SAARC? [2]

b) Describe the economic conditions of Afghanistan. [4]

c) Describe the relief features of Bhutan. [4]

Q2) a) Name the types of forests in Nepal. [2]

b) Describe the major river systems in India. [4]

c) Explain the strategic location of India. [4]

Q3) a) Name the types of vegetation in Sri Lanka. [2]

b) Describe the cultural aspects of Afghanistan. [4]

c) Explain the agricultural activities in Bangladesh. [4]

P.T.O.

- Q4)** a) Write a short note on drainage in Pakistan. [2]
b) Describe the economy of Nepal. [4]
c) Explain the cultural aspects of Maldives. [4]
- Q5)** a) Describe the agricultural activities in India. [4]
b) Explain the economic conditions in Pakistan. [5]
- Q6)** a) Write an account of the physiography of India. [4]
b) Give the history of SAARC organisation. [5]

