SEAT No. :

[Total No. of Pages : 2

[5535]-101

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]**

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[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]**

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[5535]-103

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) Descirbe 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]**

<div align="center">OR</div>

Q8) a) Explain the dynamic and applied nature of Economic Geography. **[5]**

  b) Discuss the development of green revolution in India. **[5]**

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[5535]-104

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 compulsary.*

 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]**

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]**

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Total No. of Questions : 6]

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[5535]-202

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]**

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[5535]-203

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 sattelites in weather forecasting. **[4]**

b) Give benefits of weather forecasting in disaster prevention and prepareness. **[5]**

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SEAT No. :

[Total No. of Pages : 2

[5535]-204

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]**

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]**

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[5535]-205

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]**

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]**

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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]**

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[5535]-207

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 Tibetean Anticyclone.   **[2]**

c) Explain the role of monsoon depressions in rainfall distribution. **[4]**

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]**

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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]**

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]**

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SEAT No. :

[Total No. of Pages : 2

[5535]-209

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]**

Q4) a) Define seasonal migration.   [2]

   b) Explain the Recardo theory of rural landuse.   [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]

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[5535]-210
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]**

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[5535]-211
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]**

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[5535]-212
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]**

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]**

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[5535]-213

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]**

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[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 characterstic of aerial photograph.   **[4]**

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]**

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[5535]-301

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]

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]**

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[5535]-302

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]**

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[5535]-303

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]**

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[5535]-304

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]**

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]**

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[5535]-305

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]**

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]**

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[5535]-306

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 matirx.   **[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 Crammer'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 interprete results.   **[4]**

Q3) a) Define the term explained variance. **[2]**

b) Find A_0, A_1 an 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 interprete 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 interprete 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]**

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[5535]-307
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]**

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[5535]-308
M.A./M.Sc.
GEOGRAPHY
Gg - 322: Geography of Soils
(2013 Pattern) (Semester - III) (Credit System)

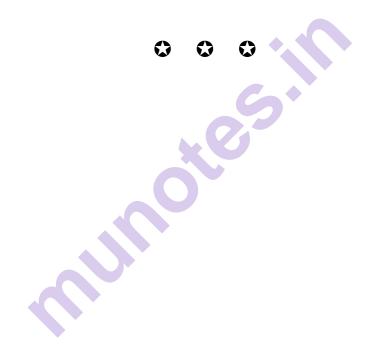*Time : 2½ Hours]*   *[Max. Marks : 38*

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]**

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[5535]-309

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]**

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[5535]-310
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 materialisam.   **[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]**

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]**

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[5535]-311

M.A./M.Sc.

GEOGRAPHY

Gg - 306 : Geoinformatics - III

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

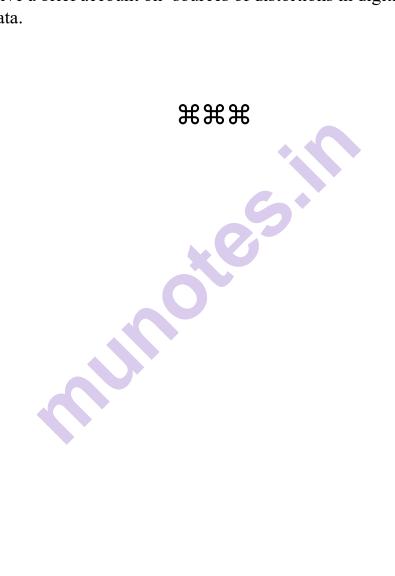*Time : 2½ Hours]*   *[Max. Marks : 38*

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]

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]

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[5535]-402

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]**

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]**

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[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]**

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]**

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SEAT No. :

[Total No. of Pages : 1

[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]**

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[5535]-405
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]**
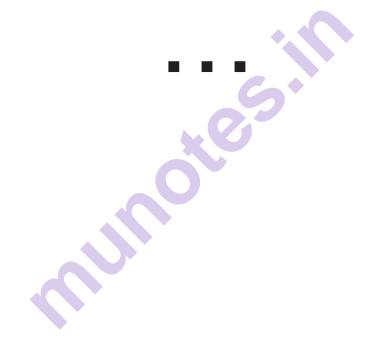
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SEAT No. :

[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]**

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]**

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[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]**

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]**

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[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 tsunami.   **[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]**

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]**

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[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 culculator 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]**

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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]**

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Q4) a) Define food sovereignity. [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 approch will be useful in knowing multi-dimensions of food security. [4]

b) Describe the food security condition in India on state level. [5]

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[5535]-411

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]**

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[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]**

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]**

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