



[4133] – 103

Seat No.	
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M.A./M.Sc. (Semester – I) Examination, 2012
GEOGRAPHY
(2008 Pattern)
Gg-103 : Principles of Economic Geography

Time : 3 Hours

Marks : 80

- N.B. :** 1) Attempt **any four** questions.
2) **All** questions carry **equal** marks.
3) Draw figures/maps **wherever** necessary.
4) Use of map stencils is **allowed**.

1. Define hypothesis and discuss the testing of hypothesis in economic geography.
2. Give a brief history of evolution of economic land scape.
3. Give the meaning of 'Economies of Scale' and discuss the external and internal economies of scale.
4. Critically examine the Rostow's model of economic development.
5. Explain the socio-economic impact of green revolution in India.
6. Explain the problems of international trade.
7. Write notes (**any two**) :
 - I) Significance of Natural Resources
 - II) Von Thunen's Concentric Rings
 - III) Recent Trends in Economic Geography.



4. a) Describe in brief the concept of residuals and explained variance. **(5)**
 b) Find the appropriate regression equation to describe the following observations. Plot the regression line, show Y residuals and estimate the value when x is 11. **(15)**

X	–	1	2	3	4	5	6	7	8	9
Y	–	10.2	15	18.2	20	25	30.3	35	37	45

5. Using data given below test the hypothesis at 5% and 1% level of significance that the frequency of hill slopes in different directions is not related to the catchments. **(20)**

		East	West	North	South
Basin 1	–	23	45	40	12
Basin 2	–	20	43	26	16
Basin 3	–	15	23	32	18

6. Test the hypothesis that the samples given below are drawn from one and the same population. (Data on height in meters of mangrove trees in a creek) **(20)**

S₁	S₂	S₃	S₄	S₅
3	5	4	2	1
5	5	2	1	2
6	2	1	6	5
4	3	4	–	6
2	–	–	–	–

7. Write notes on **any two** : **(20)**
 a) Spatial and temporal data
 b) Standard error estimates
 c) Non parametric tests.



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Seat No.	
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M.A./M.Sc. (Semester – II) Examination, 2012
GEOGRAPHY
Gg-211 : Synoptic Climatology
(2008 Pattern)

Time : 3 Hours

Max. Marks : 80

- Instructions :** 1) Attempt **any four** questions.
2) **All** questions carry **equal** marks.
3) Use of stencils is **allowed**.

1. Explain the role of Indian meteorological services in observation, collection, reporting and displaying systems of weather data.
2. Give a detailed account of formation, life cycle, structure and dissipation of tropical cyclone.
3. Describe the environmental impact of severe weather systems with suitable examples.
4. Explain the theories of rain formation.
5. Describe various methods of weather forecasting.
6. Discuss the application of synoptic climatology in weather forecasting for disaster prevention and preparedness.
7. Write notes on **any two** :
 - a) Nature and scope of synoptic climatology
 - b) Air masses of Asia
 - c) Western disturbances.



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Seat No.	
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M.A./M.Sc. (Semester – II) Examination, 2012
GEOGRAPHY
Gg-212 : Agricultural Geography
(2008 Pattern)

Time : 3 Hours

Max. Marks : 80

Instructions : 1) Attempt **any four** questions.

2) **All** questions carry **equal** marks.

3) Use of map stencils is **allowed**.

1. Define agricultural geography. Explain its nature and scope.
2. Examine the role of irrigation and mechanization inputs in agricultural pattern.
3. Discuss the intensive subsistence farming system with suitable examples.
4. Explain the characteristics of arid and semi-arid region and their influence on agriculture.
5. Give an account of agricultural regions in India.
6. Explain the significance of landuse survey and give an account of landuse classification in India.
7. Write notes on **any two** :
 - a) Importance of agriculture in the Indian economy
 - b) Plantation agriculture
 - c) Bhatia's method of agricultural efficiency.



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Seat No.	
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M.A./M.Sc. (Semester – II) Examination, 2012
GEOGRAPHY
Gg-223 : Geography of Rural Settlements
(2008 Pattern)

Time : 3 Hours

Max. Marks : 80

Instructions : 1) Attempt **any four** questions.

2) **All** questions carry **equal** marks.

3) Use of map stencils is **allowed**.

1. Explain the reflection of geographical and cultural aspects in the place names of settlements.
2. What is dispersion of settlements ? Describe the factors influencing dispersion.
3. Critically examine Von Thunen's Model of land use.
4. Explain socio-cultural morphogenesis of rural settlements with suitable examples.
5. Describe physical and economic factors affecting house types.
6. Describe various house types and patterns of rural settlements in Maharashtra.
7. Write notes (**any two**) :
 - a) Land use planning in rural areas
 - b) Seasonal migration
 - c) Service village and trading centre.



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Seat No.	
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M.A./M.Sc. (Semester – II) Examination, 2012
GEOGRAPHY
Gg-224 : Geoinformatics (Paper – II)
(2008 Pattern)

Time : 3 Hours

Max. Marks : 80

- Instructions :** 1) Attempt **any four** questions.
2) **All** questions carry **equal** marks.
3) Use of map stencils is **allowed**.

1. Name the types of data sources in geoinformatics and explain the importance of fieldwork, surveys and GPS coordinates.
2. Discuss the wave bands of the electromagnetic spectrum.
3. Explain the interaction of EMR with reference to scattering, absorption and refraction.
4. What is a remote sensor ? Discuss the characteristics of Landsat sensors
5. Name any four data products and explain the mode of data formats for digital data.
6. Discuss with proper examples the elements of aerial photo interpretation.
7. Write notes (**any two**) :
 - i) Measurement of scale in aerial photograph
 - ii) Spherical aberrations
 - iii) Components of GPS.



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Seat No.	
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M.A./M.Sc. (Semester – III) Examination, 2012
GEOGRAPHY
Gg-301 : Theoretical and Applied Geography
(2008 Pattern)

Time : 3 Hours

Max. Marks : 80

- N.B. :** i) Attempt **any four** questions.
ii) **All** questions carry **equal** marks.
iii) Draw figures/maps **wherever** necessary.
iv) Use of map stencils is **allowed**.

1. Discuss the contribution of 'Ptolemy' to the development of geographical thought.
2. Examine the concept of dualism with reference to physical versus human geography.
3. Explain how hypothesis differs from theories and laws.
4. Explain the concept of structure, elements and relationships in systems approach in geography.
5. Describe the 'quantitative revolution' in geography.
6. Explain the term land use and bring out the significance of geographical concepts and techniques in land use planning.
7. Write notes on **any two** :
 - a) Herodotus
 - b) GIS
 - c) Need and significance of applied geography



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Seat No.	
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M.A./M.Sc. (Semester – III) Examination, 2012
GEOGRAPHY
Special Paper – I
Gg-312 : Trade and Transport Geography
(2008 Pattern)

Time : 3 Hours

Max. Marks : 80

Instructions : i) Attempt **any four** questions.
ii) **All** questions carry **equal** marks.
iii) Use of map stencils is **allowed**.

1. Explain various approaches to the study of trade and transport Geography.
2. Give an account of world distribution of airways and factors associated with the development of air transport.
3. Describe various graph theoretic measures in the measurement of accessibility.
4. Elaborate the growth of urban transportation in developing countries and the problems associated with it.
5. Explain various factors associated with the growth of seaports and airports.
6. Explain in detail history of development of international trade.
7. Write notes on **any two** :
 - a) Transport network and economic development.
 - b) Neo-classical theory of trade.
 - c) Vehicular pollution and congestion as a urban transport problem.



[4133] – 307

Seat
No.

M.A./M.Sc. (Semester – III) Examination, 2012
GEOGRAPHY
Special Paper – II
Gg-320 : Multivariate Statistics
(2008 Pattern)

Time : 3 Hours

Max. Marks : 80

- N.B. :** i) Write **any four** questions.
ii) **All** questions carry **equal** marks.
iii) Draw figures/maps **wherever** necessary.
iv) Use of map stencils is **allowed**.

1. a) What is matrix ? Give examples and definitions of following matrices
symmetric, diagonal, upper triangular and row matrix. **6**
- b) Find inverse of the following matrices. **6**

$$[A] = \begin{bmatrix} 0.5 & 0.8 & 0.7 \\ 0.1 & 0.3 & 0.4 \\ 0.1 & 0.1 & 0.1 \end{bmatrix}$$

$$[B] = \begin{bmatrix} 1 & 2 & 8 \\ 3 & 2 & 1 \\ 1 & 1 & 0 \end{bmatrix}$$

- c) Find the unknowns in the following simultaneous equations using matrix solutions. **8**

$$7x + 5y + 2z = 37$$

$$2x + 4y - z = 11$$

$$3x + 4y + z = 20$$

P.T.O.



2. Find and plot the appropriate Bivariate non linear regression from the following data (x-Location from source in the river, y -% pollutants)

x=	1	5	10	15	20	25
y=	1	2	8	10	5	1

3. Find second order multiple regression equation an its explained variance from the following data :

X₁	3	4	7	1	2	3	5	7
X₂	0.1	0.2	0.3	0.4	0.5	0.5	0.7	0.5
Y	10	02	11	10	12	10	08	09

4. Find the linear trend surface equation and plot the trend to suitable scale (Z-Depth of pot holes in meters)

X	1	3	1	3	4	5	6	6	7
Y	1	2	5	4	6.5	3	5.5	8	9
Z	1.5	1	0.8	0.5	0.4	0.3	0.3	0.2	0.1

Determine the explained variance of the equation.

5. Find the first two principal components, from the following matrix of correlations. Calculate eigen value and explained variance.

	X₁	X₂	X₃
X₁	1	0.8	0.7
X₂	0.8	1	0.4
X₃	0.7	0.4	1



6. Following table gives loading on first two principal components. Plot the vectors for each variable and comment on the result. Calculate explained variance of both the components.

Variable	a	b	c	d	e	f	g	h
PC ₁	0.8	0.8	0.6	0.4	0.8	0.6	-0.2	-0.4
PC ₂	0.1	0.2	0.4	0.2	-0.6	-0.6	0.5	-0.5

7. Write explanatory notes on **any two** :
- a) Curvilinear cubic Bivariate regression
 - b) Higher order trend surfaces
 - c) Communalities.



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Seat No.	
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M.A./M.Sc. (Semester – III) Examination, 2012
GEOGRAPHY (Special Paper – II)
Gg-321 : Political Geography
(2008 Pattern)

Time : 3 Hours

Max. Marks : 80

- N.B.** : i) Attempt **any four** questions.
ii) **All** questions carry **equal** marks.
iii) Draw figures/maps **wherever** necessary.
iv) Use of map stencils is **allowed**.

1. Describe nature, scope and development of political geography.
2. Explain the process of nation building and state formation.
3. Discuss the global geostrategic views giving emphasis on land and sea power.
4. Classify the resources and explain its impact on national strategy.
5. “The Indian ocean still holds significant geopolitical importance”. Discuss.
6. Discuss the interstate water disputes in India.
7. Write notes on **any two** :
 - a) Functional classification of boundaries.
 - b) Unified field theory.
 - c) Emergence of new states in India.



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Seat No.	
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M.A./M.Sc. (Semester – IV) Examination, 2012
GEOGRAPHY
Gg-421 : Geography of Water Resources
(2008 Pattern)

Time : 3 Hours

Max. Marks : 80

- Instructions :** 1) Attempt **any four** questions.
2) **All** questions carry **equal** marks.
3) Use of stencils is **allowed**.

1. Give an account of distribution of world's surface water resources with respect to glaciers, ice caps and river channels.
2. Explain the water supply and utilization methods of estimation for agriculture and industry.
3. Describe the methods of distribution of water to farms.
4. Discuss the industrial water pollution and treatment.
5. Give an account of abundance and scarcity as problems of water resources.
6. Explain the importance of conservation and planning for the development of water resources.
7. Write notes on **any two** :
 - a) Hydrological cycle.
 - b) Municipal demand and use of water.
 - c) Water shed management.



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Seat No.	
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M.A./M.Sc. (Semester – IV) Examination, 2012
GEOGRAPHY
Gg-431 : Computer Geography
(2008 Pattern)

Time : 3 Hours

Max. Marks : 80

Instructions : 1) **All** questions carry **equal** marks.
2) Attempt **any four** questions.
3) Use of calculator and statistical table is **allowed**.

1. Discuss the application of computer techniques in Human Geography.
2. Explain the functions of windows operating system.
3. Discuss in detail cartographic applications of map making.
4. State the significance of CorelDRAW in map making.
5. Discuss the application of Auto CAD in Geography.
6. Explain the steps used in MS-Excel to represent data with charts.
7. Write notes on **any two** :
 - a) Input-Output devices of computer
 - b) Corel photo paint-image
 - c) Graphical representation.

B/I/12/220



[4133] – 409

Seat No.	
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M.A./M.Sc. (Semester – IV) Examination, 2012
GEOGRAPHY
Gg-432 : Oceanography
(2008 Pattern)

Time : 3 Hours

Max. Marks : 80

- Instructions :** i) Attempt **any four** questions.
ii) **All** questions carry **equal** marks.
iii) **Use of map stencils is allowed.**

1. Describe in detail the nature of modern trends in oceanography.
2. Discuss the theory of Sea Floor Spreading in the context of drifting of continents.
3. What are coral reefs ? Discuss the formation of various types of coral reefs on ocean floor.
4. Write a detailed account of equilibrium Theory of Tides.
5. Discuss nature and properties of various sediments found on the ocean floor.
6. Describe the ocean currents produced in Atlantic and Indian Ocean.
7. Write notes on **any two** :
 - a) Density of ocean water
 - b) Continental margins
 - c) Water refraction.



[4133] – 412

Seat No.	
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M.A./M.Sc. (Semester – IV) Examination, 2012
GEOGRAPHY
Gg-442 : Regional Geography of South East Asia
(2008 Pattern)

Time : 3 Hours

Max. Marks : 80

- Instructions :**
- i) Attempt **any four** questions.
 - ii) **All** questions carry **equal** marks.
 - iii) Use of map stencils is **allowed**.

1. Explain the locational significance of South East Asia.
2. Describe the salient features of agriculture in South East Asia.
3. Give an account of major industries and their distribution in South East Asia.
4. Write an essay on international trade in South East Asia.
5. Write an essay on population composition of South East Asia.
6. Explain the growth and distribution of settlements in South East Asia.
7. Write notes on **any two** :
 - i) Major vegetation types in South East Asia.
 - ii) Plantation agriculture in South East Asia.
 - iii) Tourist centers of South East Asia.



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Seat No.	
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M.A./M.Sc. (Semester – IV) Examination, 2012
GEOGRAPHY
Gg-444 : Geography of Japan
(2008 Pattern)

Time : 3 Hours

Max. Marks : 80

- Instructions :** 1) Attempt **any four** questions.
2) **All** questions carry **equal** marks.
3) **Use of map stencils is allowed.**

1. Describe geology and tectonic history of Japan.
2. Give a detailed account of climate of Japan.
3. Write a geographical account of agricultural regions with respect to problems and prospects of agriculture in Japan.
4. "The economy of Japan largely depends on industrial development". Justify the statement.
5. Give a comparative account of different means of transportation in Japan.
6. Explain different characteristics, policies and problems of population in Japan.
7. Write notes on **any two** :
 - 1) National policies in the development of Japan
 - 2) Natural hazards in Japan
 - 3) Major mineral resources of Japan.



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Seat No.	
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M.A./M.Sc. (Semester – IV) Examination, 2012
GEOGRAPHY
Gg-445 : Geography of India
(2008 Pattern)

Time : 3 Hours

Max. Marks : 80

Instructions : 1) Attempt **any four** questions.
2) **All** questions carry **equal** marks.
3) Use of map stencils is **allowed**.

1. Divide India in physiographic divisions and explain the Northern Plain in detail.
2. Describe major soil types and their distribution in India.
3. Write a geographical essay on the distribution and utilization of Petroleum and natural gas.
4. Give a detailed account of distribution and production of Wheat and Jawar in India.
5. Discuss the distribution and development of sugar and fertilizer industries in India.
6. Describe salient features of regional development of Chota Nagpur plateau and North-eastern regions of India.
7. Write notes on **any two** :
 - 1) Geographical and relative location of India.
 - 2) Mechanism of Indian monsoon.
 - 3) Population growth in India.



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Seat
No.

M.A./M.Sc. (Semester – I) Examination, 2012
GEOGRAPHY
Gg-101 : Principles of Geomorphology
(2008 Pattern)

Time : 3 Hours

Max. Marks : 80

- N.B. :** i) Attempt **any four** questions.
ii) **All** questions carry **equal** marks.
iii) Draw figures/maps **wherever** necessary.
iv) **Use** of map stencils is **allowed**.

1. Explain the concept of uniformitarianism and catastrophism with reference to historical account of geomorphology.
2. Discuss the Holmes convection current theory in detail.
3. What do you understand by the term mass movement ? Describe the different types of mass movement.
4. Explain the Davisian cycle of erosion with reference to concept of peneplanation.
5. Discuss the work of wind and associated erosional landforms in desert environment.
6. What is slope profile ? Explain the theory of parallel retreat of slopes.
7. Write notes on **any two** :
 - a) Ergodic principle
 - b) Interior of the earth
 - c) Coastal landforms.



[4133] – 102

Seat No.	
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M.A./M.Sc. (Semester – I) Examination, 2012
GEOGRAPHY
Gg-102 : Principles of Climatology
(2008 Pattern)

Time : 3 Hours

Max. Marks : 80

- N.B. :** 1) Attempt **any four** questions.
2) **All** questions carry **equal** marks.
3) **Use of map stencils is allowed.**

1. Give an account of the various subdivisions of climatology.
2. Define the term insolation and explain various factors affecting insolation.
3. Describe the distribution of surface pressure with suitable diagram.
4. Give an account of the observed global circulation of atmosphere with suitable diagram.
5. How is humidity measured ? Describe the factors affecting evaporation.
6. Explain various types of fronts and their characteristics.
7. Write notes on **any two** :
 - a) Ionosphere
 - b) Geostrophic wind
 - c) Absolute and conditional instability.



[4133] – 104

Seat
No.

M.A./M.Sc. (Semester – I) Examination, 2012
GEOGRAPHY
Gg-104 : Principles of Settlement and Population Geography
(2008 Pattern)

Time : 3 Hours

Max. Marks : 80

- Instructions :** 1) Attempt **any four** questions.
2) **All** questions carry **equal** marks.
3) **Use** of map stencils is **allowed**.

1. Explain factors affecting growth of human settlements.
2. Describe the development of settlements from neolithic period to modern period.
3. Compare the Christaller's and Losch's models.
4. Describe the relationship between urbanization and industrialization.
5. Discuss the factors influencing distribution of population with examples.
6. Explain Thomas Malthus theory and its applicability.
7. Write notes on **any two** :
 - a) Range of goods
 - b) Nearest neighbour method
 - c) Evolution of population geography.



[4133] – 202

Seat No.	
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M.A./M.Sc. (Semester – II) Examination, 2012

GEOGRAPHY

Gg-210 : Tropical Geomorphology

(2008 Pattern)

Time : 3 Hours

Max. Marks : 80

- Instructions :**
- 1) **All** questions carry **equal** marks.
 - 2) Attempt **any four** questions.
 - 3) **Use of map stencils is allowed.**

1. Define tropics and explain morphogenetic regions.
2. Discuss factors influencing tropical weathering.
3. Define laterite and give theories of origin of iron in laterites.
4. Discuss the process of chemical denudation in tropical environment.
5. Explain the process of erosion and deposition of tropical rivers.
6. Define planation surface and give an account of double surface of planation.
7. Write notes (**any two**) :
 - i) Slopes and valley forms of tropical terrain.
 - ii) Various divisions of lateritic profile.
 - iii) Quaternary changes in climate.



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Seat No.	
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M.A./M.Sc. (Semester – II) Examination, 2012
GEOGRAPHY
Gg – 213 : Population Geography
(2008 Pattern)

Time : 3 Hours

Max. Marks : 80

- Instructions :** 1) Attempt **any four** questions.
2) **All** questions carry **equal** marks.
3) **Use of map stencils is allowed.**

1. Describe the various approaches to the study of population geography.
2. Critically examine Malthus Theory of population growth.
3. Discuss the physical factors affecting the distribution of world population.
4. Describe the factors influencing mortality levels and trends in developed countries
5. Describe the types of migration in detail.
6. Explain literacy and occupational composition of population.
7. Write notes on **any two**.
 - a) Use of population projection in agriculture.
 - b) Population policies after world war II.
 - c) Areas of high fertility in the world.



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Seat
No.

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M.A./M.Sc. (Semester – II) Examination, 2012
GEOGRAPHY
Gg-214 : Geoinformatics – Paper – I
(2008 Pattern)

Time : 3 Hours

Max. Marks : 80

- Instructions :** 1) Attempt **any four** questions.
2) **All** questions carry **equal** marks.
3) **Use** of map stencils is **allowed**.

1. Define GIS and write a detail essay on the history of GIS.
2. Describe with proper examples nominal, ordinal, ratio and cyclic scales in GIS.
3. What are different data models ? Discuss spatial and non-spatial data models.
4. What types of errors are detected during editing a digitized map ? Explain each one of them along with their correction techniques.
5. Define SQL and discuss the applications of SQL in GIS with suitable examples.
6. Define the term map algebra and explain local and focal grid operations in GIS with proper illustrations.
7. Write notes (**any two**) :
 - i) Concept of space and time in GIS
 - ii) Functional relationship
 - iii) Advantages of DBMS.



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Seat No.	
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M.A./M.Sc. (Semester – II) Examination, 2012
GEOGRAPHY
Gg-220 : Fluvial Geomorphology
(2008 Pattern)

Time : 3 Hours

Max. Marks : 80

Instructions : i) Attempt **any four** questions.
ii) **All** questions carry **equal** marks.
iii) Use of map stencils is **allowed**.

1. Define fluvial geomorphology and explain its nature and scope.
2. Distinguish between the types of flows and discuss about steady and unsteady flows.
3. Define hydraulic geometry and explain at a station hydraulic geometry with respect to form and flow variables.
4. Differentiate between suspended load and bed load and discuss modes of sediment transport.
5. Differentiate between various channel patterns observed in a river and explain braided channel in detail.
6. Discuss the various erosional and depositional features associated with river channel.
7. Write notes on **any two** :
 - a) Belt of no erosion
 - b) Isovel
 - c) Concept of grade.



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Seat No.	
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M.A/M.Sc. (Semester – II) Examination, 2012
GEOGRAPHY
Gg – 221 : Monsoon Climatology
(2008 Pattern)

Time : 3 Hours

Max. Marks : 80

- Instructions :**
- 1) Attempt **any four** questions.
 - 2) **All** questions carry **equal** marks.
 - 3) **Use** of map stencils is **allowed**.

1. Describe thermal and Fohn's concept in origin of monsoon.
2. Discuss the effect of differential heating of land and sea as a driving mechanism in monsoon model.
3. Explain various features of surface and upper winds of summer monsoon.
4. Give a detailed account of easterly Jet and Tibetan anticyclone.
5. Write an account of intra-seasonal active and break in monsoon situations.
6. What is Walker circulation ? Explain the importance of Walker circulation in teleconnection.
7. Write notes on **any two** :
 - 1) Environmental and economic importance of monsoon.
 - 2) Regional aspects of monsoon in East Asia.
 - 3) ENSO indicators.



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Seat
No.

M.A./M.Sc. (Semester – II) Examination, 2012
GEOGRAPHY
Gg-222 : Industrial Geography
(2008 Pattern)

Time : 3 Hours

Max. Marks : 80

- Instructions :** 1) Attempt **any four** questions.
2) **All** questions carry **equal** marks.
3) **Use of map stencils is allowed.**

1. Define 'Industrial Geography' and describe its nature and scope.
2. Explain various economic and socio-cultural factors of industrial location.
3. Critically examine Weber's model of industrial location.
4. Give an account of changing pattern and the world distribution of iron and steel industry.
5. Explain various problems and prospects of industrial regions of Anglo-America.
6. Explain the nature of industrial regions in India.
7. Write notes on **any two** :
 - a) Centralization of industries
 - b) Agglomeration
 - c) Role of software industry in India.

B/I/12/465



[4133] – 302

Seat
No.

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M.A./M.Sc. (Semester – III) Examination, 2012
GEOGRAPHY
(Special Paper – I)
Gg – 310 : Coastal Geomorphology
(2008 Pattern)

Time : 3 Hours

Max. Marks : 80

- N.B. :** i) Attempt **any four** questions.
ii) **All** questions carry **equal** marks.
iii) Draw figures/maps **wherever** necessary.
iv) **Use** of map stencils is **allowed**.

1. Explain the coastal system with respect to spatial and temporal scales in coastal Geomorphology.
2. Discuss the 'Equilibrium theory of tides'.
3. Explain the causes and consequences of sea level changes with reference to Holocene transgression.
4. Give an account of sources of coastal sediments and pathways of sediment transport.
5. What are beaches and spits ? Explain with reference to their profiles, types and sediments.
6. Give an account of wet lands, Kharlands and estuarine reclamation.
7. Write notes on **any two** :
 - a) Wave refraction
 - b) Corals and coral reefs
 - c) Mangroove swamps and salt marshes.



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Seat No.	
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M.A./M.Sc. (Semester – III) Examination, 2012
GEOGRAPHY (Special Paper – I)
Gg – 311 : Applied Climatology
(2008 Pattern)

Time : 3 Hours

Max. Marks : 80

- N.B. :** 1) Attempt **any four** questions.
2) **All** questions carry **equal** marks.
3) **Use of map stencils is allowed.**

1. Why does clear air turbulence occurs ? Explain the influence of climatic elements on air transport.
2. Discuss the influence of climate on soil management, pests and diseases.
3. Write a detail note on heating degree-days and cooling towers.
4. Describe the nature of urban climates and explain the impact of urban climate on global environmental change.
5. Differentiate between evaporation and evapo-transpiration. Explain different empirical methods used to estimate evapo-transpiration.
6. Explain the effect of volcanic activity on climate change, also describe astronomical theories of climate change.
7. Write notes on **any two** :
 - a) Effect of climate on water transport.
 - b) Remote sensing and crop conditions.
 - c) Development of applied climatology.



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Seat
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M.A./M.Sc. (Semester – III) Examination, 2012
GEOGRAPHY
Special Paper – I
Gg-313 : Urban Geography
(2008 Pattern)

Time : 3 Hours

Max. Marks : 80

- N.B. :** i) Attempt **any four** questions.
ii) **All** questions carry **equal** marks.
iii) **Use of map stencil is allowed.**

1. Trace out the brief history of urbanization in the world.
2. Examine the relevance of various models of urban structure in the context of present urban morphology.
3. Explain the functional classification of towns and cities by H.J. Nelson.
4. Correlate the population explosion and urban growth in developing countries.
5. Explain the nature of urban influence on the city region.
6. “Unprecedented growth of cities is leading to unprecedented environmental degradation”. Discuss.
7. Write notes on **any two** :
 - a) Scope of urban geography
 - b) Suburbanization and satellite towns
 - c) Elements of city plan.



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Seat No.	
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M.A./M.Sc. (Semester – III) Examination, 2012
GEOGRAPHY
Special Paper – I
Gg – 314 : Geoinformatics – III
(2008 Pattern)

Time : 3 Hours

Max. Marks : 80

- Instructions :**
- i) Attempt **any four** questions.*
 - ii) **All** questions carry **equal** marks.*
 - iii) **Use of map stencil and calculator is allowed.***

1. What type of data can be used for generating surfaces ? Briefly discuss the DEM and DTM approaches that can be used to generate and compare map surfaces.
2. Discuss in detail the single and multiple layer operations carried out in spatial analysis.
3. What do you understand by radiometric and atmospheric distortion of a remotely sensed image ? Explain how such images are rectified ?
4. Describe the main characteristics of supervised and unsupervised classification techniques.
5. Name the various multi-image manipulation techniques in digital image processing. Explain the conceptual basis of PCA.
6. Give an account of different types of resolutions that are used to describe the characteristics of remote sensing system.
7. Write notes on **any two** :
 - a) Zonal and global grid operations
 - b) Mapping accuracy
 - c) SRTM data.



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Seat No.	
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M.A./M.Sc. (Semester – III) Examination, 2012
GEOGRAPHY
Special Paper – II
Gg-322 : Soil Geography
(2008 Pattern)

Time : 3 Hours

Max. Marks : 80

- N.B. :**
- i) Attempt **any four** questions.*
 - ii) **All** questions carry **equal** marks.*
 - iii) Draw figures /maps **wherever** necessary.*
 - iv) Use of Map stencils is **allowed**.*

1. Give an account of buried soils and paleosoils
2. Describe in brief the various factors of soil formation.
3. Discuss biochemical properties of soils with special reference to soil biomass.
4. Describe the development of soil profile with reference to deposition of iron and aluminium.
5. Write an account of distribution of secondary clay minerals in soil profile.
6. Discuss the problem of soil salinization leading to its degradation.
7. Write notes on **any two** :
 - a) Soil and forestry
 - b) Redox potential
 - c) Soil colour.



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Seat
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M.A./M.Sc. (Semester – IV) Examination, 2012
GEOGRAPHY
Gg – 401 : Resource Management
(2008 Pattern)

Time : 3 Hours

Max. Marks : 80

- Instructions :** 1) Attempt **any four** questions.
2) **All** questions carry **equal** marks.
3) **Use of map stencils is allowed.**

1. Elaborate the concepts and models in the study of natural resource management.
2. What are the bases of classification of physical resources ?
3. What is conservation ? Explain the methods of conservation of natural resources.
4. Explain the role of Remote Sensing in resource appraisal and management.
5. Elaborate the concepts of resource development and sustainable management.
6. Describe the distribution and developmental policy of water resources of India.
7. Write notes on **any two** :
 - i) Management of cultural resources
 - ii) Population as a resource
 - iii) Integrated resource management.



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Seat
No.

M.A./M.Sc. (Semester – IV) Examination, 2012
GEOGRAPHY
Gg-420 : Regional Planning and Development
(2008 Pattern)

Time : 3 Hours

Max. Marks : 80

- Instructions:** 1) Attempt **any four** questions.
2) **All** questions carry **equal** marks.
3) **Use of map stencils is allowed.**

1. Define regional planning and explain various concepts and scope of regional planning.
2. Give a detailed account of techno-economic and diagnostic surveys for regional planning.
3. Discuss methodology and techniques of regional planning.
4. Differentiate concentration and dispersal strategies of development and planning in developing and developed countries.
5. List the Indian Five Year Plans and explains salient features of population and agricultural policies in India.
6. Give an account of regionalization for planning of tribal and hill areas.
7. Write notes on **any two** :
 - i) Regionalization for planning of metropolitan regions
 - ii) Regional disparities in India
 - iii) Process of regional planning.



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Seat No.	
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M.A./M.Sc. (Semester – IV) Examination, 2012
GEOGRAPHY
Gg-422 : Biogeography
(2008 Pattern)

Time : 3 Hours

Max. Marks : 80

- Instructions :**
- 1) **All** questions carry **equal** marks.
 - 2) Attempt **any four** questions.
 - 3) **Use of map stencils is allowed.**

1. Explain the role of biogeography in environmental studies.
2. Describe the zoogeographical provinces.
3. Give an account on evolution and adaptation of biogeographical process.
4. Explain the distributional patterns of biodiversity.
5. What is ecological succession ? Describe the process of ecological succession with examples.
6. Describe the features of Tundra as a major biome of the world.
7. Write notes on **any two** :
 - i) Variety of island habitats.
 - ii) Changing patterns of continents.
 - iii) Terrestrial biomes of desert scrub.



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Seat No.	
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M.A./M.Sc. (Semester – IV) Examination, 2012
GEOGRAPHY
Gg – 423 : Geography and Ecosystem
(2008 Pattern)

Time : 3 Hours

Max. Marks : 80

- Instructions :** 1) Attempt **any four** questions.
2) **All** questions carry **equal** marks.
3) **Use of map stencils is allowed.**

1. Define ecosystem and explain spatial and temporal dimensions of ecosystem.
2. Give an account of structure and functioning of an ecosystem.
3. Write an account of ecological imbalance with reference to forest and energy resources.
4. What is biodiversity ? Explain various methods for conservation of biodiversity.
5. Explain large dams as a man-made ecosystem with reference to sardar sarovar project
6. Describe the Indian 'Environment Protection and National Environment Tribunal Act'.
7. Write notes on **any two**.
 - a) Carrying capacity of the earth.
 - b) Uniformitarianism.
 - c) Geography as human ecology.



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M.A./M.Sc. (Semester – IV) Examination, 2012
GEOGRAPHY
Gg-424 : Research Methodology
(2008 Pattern)

Time : 3 Hours

Max. Marks : 80

- Instructions :** 1) **All questions carry equal marks.**
2) **Attempt any four questions.**
3) **Use of map stencils is allowed.**

1. What is map projection ? Give importance and types of map projection.
2. Discuss SOI toposheet as an important source of data base for physical and cultural features.
3. Give an importance and use of aerial photographs and satellite images in geographical research.
4. Discuss the application of bivariate and multivariate correlation analysis.
5. Describe various components of field work.
6. Discuss the technique of report writing in geographical research.
7. Write notes (**any two**) :
 - i) Importance of survey
 - ii) Use of GIS in spatial analysis
 - iii) Geometry of aerial photograph.



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Seat No.	
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M.A./M.Sc. (Semester – IV) Examination, 2012
GEOGRAPHY
Gg-430 : Social and Cultural Geography
(2008 Pattern)

Time : 3 Hours

Max. Marks : 80

- Instructions :** 1) Attempt **any four** questions.
2) **All** questions carry **equal** marks.
3) **Use** of map stencils is **allowed**.

1. Define social and cultural geography and explain the conceptual and methodological approaches.
2. Discuss the origin and diffusion of culture.
3. Explain the concept of social structure, models of assimilation and segregation.
4. Discuss the origin and diffusion of culture and cultural diversities.
5. Explain the components and indicators of social well-being.
6. Explain the rural urban contrasts in housing, health and education.
7. Write notes on **any two** :
 - a) Theoretical space
 - b) Primary and secondary social groups
 - c) Impact of technology on human settlements.



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Seat No.	
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M.A/M.Sc. (Semester – IV) Examination, 2012
GEOGRAPHY
Gg – 433 : Natural and Manmade Hazards
(2008 Pattern)

Time : 3 Hours

Max. Marks : 80

- Instructions :**
- 1) Attempt **any four** questions.
 - 2) **All** questions carry **equal** marks.
 - 3) **Use** of map stencils is **allowed**.

1. Explain the various types of natural hazards.
2. Describe the causes and effects of droughts.
3. Discuss the causes and effects of erosion and deposition on land instability.
4. Explain the impact of large river projects.
5. Discuss the impact of population growth on biodiversity.
6. Explain the effects of global warming and ozone depletion.
7. Write notes on **any two** :
 - a) Rehabilitation after disaster.
 - b) Causes of flood
 - c) Causes and effects of Tsunamies.



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M.A./M.Sc. (Semester – IV) Examination, 2012
GEOGRAPHY
Gg-441 : Regional Geography of Europe
(2008 Pattern)

Time : 3 Hours

Max. Marks : 80

- Instructions :** i) Attempt **any four** questions.
ii) **All** questions carry **equal** marks.
iii) **Use** of map stencils is **allowed**.

1. Explain major relief features and their characteristics in Europe.
2. Discuss the problems and prospects of agriculture in Europe.
3. Give an account of major industries with their distribution in Europe.
4. Explain the distribution of population in Europe.
5. Give an account of growth and distribution of settlements in Europe.
6. Discuss the development of tourism with special reference to leading tourist centres in Europe.
7. Write notes on **any two** :
 - 1) Balance of trade in Europe
 - 2) Globalization and Europe
 - 3) European Common Market.

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M.A./M.Sc. (Semester – IV) Examination, 2012
GEOGRAPHY
Gg – 443 : Regional Geography of North America
(2008 Pattern)

Time : 3 Hours

Max. Marks : 80

- Instructions :** 1) Attempt **any four** questions.
2) **All** questions carry **equal** marks.
3) **Use of map stencils is allowed.**

1. Divide North America into climatic regions and describe any one of them in details.
2. Give an account of petroleum resources of North America.
3. Describe the agricultural regions of North America.
4. Give the major industries of North America and describe the iron and steel industry in detail.
5. Write a geographical essay on ethnic diversity in North America.
6. “The emergence of the megalopolis of North America is an outcome of industrial inertia and consequent intense industrialization”. Discuss.
7. Write notes on **any two** :
 - a) Importance of tourism in North America
 - b) Geostrategic importance of North America
 - c) Political and economic relationship between Canada and U.S.A.