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M.A./ M.Sc.

GEOGRAPHY

Gg - 101 : Principles of Geomorphology

(2008 Pattern) (Semester - I)

Time : 3 Hours] *[Max. Marks :80*

Instructions to the candidates:

1) *Attempt any four questions.*

2) *All questions carry equal marks.*

3) *Use of map stencils is allowed.*

Q1) Define geomorphology and write a review on its historical development.

Q2) Give an account of 'sea floor spreading'.

Q3) Describe epiorogenic and orogenic movements.

Q4) Define and compare various processes of denudation.

Q5) 'Drainage basin as a geomorphic unit'. Discuss.

Q6) Give a brief account of 'slope morphology'.

Q7) Write notes on any two:

    a)   Ergodic Principle.

    b)   Peneplanation.

    c)   Biological weathering.

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[5328]-12

M.A./M.Sc.

GEOGRAPHY

Gg 102 : Principles of Climatology

(2008 Pattern) (Semester - I)

Time : 3 Hours]   *[Max. Marks : 50*

Instructions to the candidates:

1) *Attempt any four questions.*

2) *All questions carry equal marks.*

3) *Use of map stencils is allowed.*

Q1) Distinguish between weather and climate. Discuss the nature of tropical climatology.

Q2) Explain vertical structure of atmosphere based on temperature change.

Q3) Describe latitudinal and seasonal variations of insolation.

Q4) Give an account of the distribution of surface pressure.

Q5) Explain tricellelar model of general circulation of the atomosphere.

Q6) Define humidity and discuss its methods of measurement. Explain the factors affecting condensation.

Q7) Write notes on any two:

a) Environmental lapse rate.

b) Types of fronts.

c) Methods of weather forecasting.

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[5328]-13

M.A/M.Sc.

GEOGRAPHY

Gg-103 : Principles of Economic Geography

(2008 Pattern) (Semester - I) (Credit System)

Time : 3 Hours]

[Max. Marks : 80

Instructions to the candidates:

1) *Attempt any four questions.*

2) *All questions carry equal marks.*

4) *Use of map stencils is allowed.*

Q1) Explain the recent trends in economic geography.

Q2) Describe the homestead economy with suitable examples.

Q3) Bring out the importance of resources in economic development.

Q4) Discuss the importance of variations in cost of transportation in manufacturing.

Q5) Critically examine Myrdal's model of economic development.

Q6) Explain the various factors influencing international trade.

Q7) Write notes (any two)

    a)   Types of hypothesis.

    b)   Von thunen's model.

    c)   Privatisation in India.

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[5328]-14

M.A./M.Sc.

GEOGRAPHY

Gg-104: Principles of Population and Settlement Geography

(2008 Pattern) (Semester-I)

Time : 3Hours]   *[Max. Marks : 80*

Instructions to the candidates

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

Q1) Give an account of evolution of population geography.

Q2) Explain the factors affecting distribution of human settlements.

Q3) Discuss various patterns of settlements with examples.

Q4) Explain christaller's Theory with applications.

Q5) Describe the factors influencing urban growth with examples.

Q6) Discuss Demographic Transition model with its concept, scope and application.

Q7) Write notes on any two:
   a)   Socio-economic factors of dispersion of settlements.
   b)   Effect of climate on distribution of population.
   c)   Population as a resource.

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M.A./M.Sc.

GEOGRAPHY

Gg - 201 : Quantitative Techniques in Geography

(2008 Pattern) (Semester - II)

Time : 3 Hours]   *[Max. Marks :80*

Instructions to the candidates:

 1) *Attempt any four questions.*

 2) *Use of statictical table and calcuator is allowed.*

 3) *Figures to the right hand side bracket indicate full marks.*

Q1) a) Write a note on discrete and continous data.   **[6]**

 b) Calculate kurtosis for the given data and comment on the results.   **[14]**

Class	300-400	400-500	500-600	600-700	700-800
Frequency	03	07	14	09	05

Q2) a) Explain the measurement scales in statistics.   **[6]**

 b) During the last 1000 years a station had experienced 12 earthquakes. Using appropriate probability distribution, find the probability that in the next 100 years the station will be struck by: **[14]**

 i) Atleast 11 earthquakes.

 ii) Almost 5 earthquakes

 iii) Less than 8 earthquakes

 iv) 7 earthquakes

Q3) a) Describe the standard error estimates of mean and standard deviation.**[6]**

b) Following table gives the production of commodity from 1998 to 2010. Using the least square method, obtain a line of best fit. Estimate the production for the year 2011. **[14]**

Year	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Production (in 000 tons)	64	82	97	71	78	112	115	131	88	100	146	150	120

Q4) a) Explain in brief the concept of central limit theorem. **[6]**

b) Compute the correlation coefficient 'r' for the following data using Pearson's product moment method. **[14]**

Relative Relief	34	55	65	74	93	125	140	165	180
Settlement frequency /10 km^2 grid	16	18	10	20	17	14	11	05	06

Q5) a) Write a note on level of significance. **[6]**

b) The following table depicts the tree frequency (Y) with respect to the distance from river (X). Obtain a simple linear regression equation for the following data. Estimate the tree frequency when the distance from river is 10 m and 12 m. **[14]**

X	1	2	3	4	5	6	7
Y	20	18	19	16	12	8	5

Q6) A sample survey of 100 people was carried out to observe if geographical region is associated with the ownership of a particular commodity 'A'. Using Chi-square test, test the hypothesis at 0.05 and 0.01 level of significance that the ownership of commodity 'A' is not governed by the geographical region. **[20]**

Geographical region	Commodity 'A'	Other commodity
North-East	12	14
South-West	21	18
West	17	18
East	18	20

Q7) Write notes (any two): **[20]**

a) Properties of normal probability distribution.

b) Degree of freedom.

c) Trends and periodicity in time series data.

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[5328]-22

M.A./M.Sc.

GEOGRAPHY

Gg - 210 : Tropical Geomorphology

(2008 Pattern) (Semester-II)

Time : 3 Hours]

[Max. Marks : 80

Instructions to the candidates:

  1)   Attempt any four questions.

  2)   All questions carry equal marks.

  3)   Use of map stencils is allowed.

Q1) Give an account of 'Morphogenetic regions'.

Q2) Give an account of solubility and mobility of minerals in the tropics.

Q3) Describe various clay minerals found in tropical environment.

Q4) Give an account of Indurated laterites, their properties and its world distribution.

Q5) Give an account of distribution of laterites in India.

Q6) Give an account of domed and boulder inselbergs.

Q7) Write notes (any Two):

  a)   Landform development on laterite.

  b)   Morphology of planation surface.

  c)   Tropical rivers.

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[5328]-23

M.A./M.Sc.

GEOGRAPHY

Gg - 211 : Synoptic Climatology

(2008 Pattern) (Semester-II)

Time : 3 Hours]   *[Max. Marks : 80*

Instructions to the candidates:

   1)   *Attempt any four questions.*

   2)   *All questions carry equal marks.*

   3)   *Use of map stencils is allowed.*

Q1) Explain the procedures of observing, reporting, collecting and displaying system of weather data by India meteorological services.

Q2) Explain the life cycle of tropical cyclones with the help of diagrams.

Q3) Write an account of profile, formation and decay of hurricanes in details.

Q4) Explain the types of airmasses of Asia and describe the types of fronts.

Q5) What are western disturbances? Explain life cycle of wave cyclones in details.

Q6) Explain the types of precipitation in details.

Q7) Write notes on any two:

   a)   Medium range forecasting.

   b)   Classification of clouds.

   c)   Benefits of weather forecasting in marine activities.

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M.A./M.Sc.

GEOGRAPHY

Gg - 212 : Agricultural Geography

(2008 Pattern) (Semester-II)

Time : 3 Hours]   *[Max. Marks : 80*

Instructions to the candidates:

    1)   Attempt any four questions.

    2)   All questions carry equal marks.

    3)   Use of map stencils is allowed.

Q1) Explain in brief various approaches to the study of agricultural geography.

Q2) Elaborate the significance of agriculture in world region.

Q3) Describe the influence of economic and technological factors on agriculture.

Q4) Explain in detail plantation agriculture.

Q5) Bring out the salient features of agriculture in semi-arid regions.

Q6) Explain the contribution of Whittlesey in agricultural regionalization.

Q7) Write notes (Any Two):

    a)   Regional approach to the study of agricultural geography.

    b)   Land holdings in India.

    c)   Significance of land use Surveys.

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M.A./M.Sc.

GEOGRAPHY

Gg - 213 : Population Geography

(2008 Pattern) (Semester-II)

Time : 3 Hours] *[Max. Marks : 80*

Instructions to the candidates:

1) Attempt any four questions.

2) All questions carry equal marks.

3) Use of map stencils is allowed.

Q1) Give an account of recent trends in population geography.

Q2) Critically evaluate Marx's population theory.

Q3) Explain in detail population policies in India.

Q4) Describe the importance of population projections in planning and development.

Q5) Discuss the Lee's theory of migration.

Q6) Bring out the levels and trends of fertility in terms of educational and rural status.

Q7) Write notes (Any Two):

a) Age composition of population.

b) Density of population.

c) Laws of migration.

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M.A./M.Sc.

GEOGRAPHY

Gg - 214 : Geoinformatics - I

(2008 Pattern) (Semester-II) (Paper-I)

Time : 3 Hours]   *[Max. Marks : 80*

Instructions to the candidates:

1)   Attempt any four questions.

2)   All questions carry equal marks.

3)   Use of map stencils is allowed.

Q1) Write an account of the history of GIS.

Q2) Explain the various spatial data models used in GIS.

Q3) Explain the process of digitization and describe various types of digitizers.

Q4) Describe the various tasks of GIS.

Q5) What do you understand by DBMS? Discuss various advantages of DBMS.

Q6) Describe query analysis in GIS with suitable examples.

Q7) Write notes (any two):

a)   Objectives of GIS.

b)   Operations from Set Theory.

c)   Spatial Information Theory.

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M.A/M.Sc.

GEOGRAPHY

Gg-220 : Fluvial Geomorphology

(2008 Pattern) (Semester - II)

Time : 3 Hours]   *[Max. Marks :80*

Instructions to the candidates:

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

Q1) Write in detail about Horton's Laws of drainage composition.

Q2) 'Shear stress and stream power play a vital role in open channel hydraulics'. Discuss.

Q3) Explain the capacity and competence of river with reference to sediment entrainment and transport

Q4) Describe various parameters of channel cross section with suitable diagram

Q5) Describe various erosional features in the course of a river.

Q6) Define river metamorphosis. Explain long term and short term adjustments of river.

Q7) Write notes (any two):

a) Belt - of - no - erosion.
b) Meandering channel pattern.
c) Types of fluvial Erosion.

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M.A/M.Sc.

GEOGRAPHY

Gg-221 : Monsoon Climatology

(2008 Pattern) (Semester - II)

Time : 3 Hours]

[Max. Marks :80

Instructions to the candidates:

    1)   Attempt any four questions.

    2)   All questions carry equal marks.

    3)   Use of map stencils is allowed.

Q1) Define monsoon climatology and give an account of the development of monsoon climatology.

Q2) Explain the aerological and Fohn's concept of origin of monsoon.

Q3) Give an account of monsoon of East and south Asia.

Q4) Explain the driving mechanism of annual cycle of summer monsoon.

Q5) Give an account of onset and withdrawal of monsoon.

Q6) Give an account of monsoon depression and easterly Jet.

Q7) Write notes (any two):

    a)   Winter monsoon.

    b)   ENSO indicators.

    c)   Role of ocean and upper atmosphere in teleconnection.

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M.A/M.Sc.

GEOGRAPHY

Gg-222 : Industrial Geography

(2008 Pattern) (Semester - II)

Time : 3 Hours] *[Max. Marks :80*

Instructions to the candidates:

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

Q1) Explain the importance of manufacturing in regional economies.

Q2) Explain the concept of centralisation and decentralisation and their characteristics.

Q3) Critically examine the application of Losch's Model.

Q4) Discuss the changing pattern and distribution of automobile industry.

Q5) Give an account of any two industrial regions of Anglo America.

Q6) Discuss the nature of industrial regions in India.

Q7) Write notes (any two):

a) Agglomeration of industries.

b) changing pattern of chemical industry.

c) Nature of software industry.

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M.A/M.Sc.

GEOGRAPHY

Gg-223 : Geograph of Rural Settlements

(2008 Pattern) (Semester - II)

Time : 3 Hours]   *[Max. Marks :80*

Instructions to the candidates:

    1)   Attempt any four questions

    2)   All questions carry equal marks

    3)   Use of map stencils is allowed

Q1) Describe the evolution of settlements in different parts of the world

Q2) What is nucleation? Describe the factors of nucleation of settlements.

Q3) Critically examine Ricardo's Theory.

Q4) Explain the concepts of centrality and hierarchy of rural service centres.

Q5) Discuss the causes and consequences of rural-urban migration

Q6) Discuss the land use and transportation as significant aspects of rural development planning.

Q7) Write notes (any two):

    a) Economic organization with in villages

    b) Physical factors affecting rural house types

    c) Settlement - patterns in Maharashtra

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M.A/M.Sc.

GEOGRAPHY

Gg-224 : Geoinformatics - II (Paper - II)

(2008 Pattern) (Semester - II)

Time : 3 Hours]   *[Max. Marks :80*

Instructions to the candidates:

    1)   *Attempt any four questions*

    2)   *All questions carry equal marks*

    3)   *Use of map stencils is allowed*

Q1) Give an account of primary & secondary data sources in Geoinformatics?

Q2) Give historical perspective and development of remote sensing at national and international level.

Q3) Discuss interaction of EMR with atmosphere and surface

Q4) Explain Geometric characteristics of aerial photograph

Q5) What do you understand by Geo synchronous and sunsynchronous satellites? Explain the utility of sunsynchronous satellites.

Q6) Discuss various factors governing the interpretability of satellite images.

Q7) Write notes (any two):

    a) Spectral signatures

    b) Components and types of 4ps signals

    c) Scanning sensors

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M.A./ M.Sc.

GEOGRAPHY

Gg - 301 : Theoretical and Applied Geography

(2008 Pattern) (Semester - III)

Time : 3 Hours] *[Max. Marks :80*

Instructions to the candidates:

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

Q1) Give a brief account of Greek philosophers contribution to the development of geographical thought.

Q2) Discuss the contributions of Humboldt and Ritter in the development of geographical thoughts.

Q3) Critically examine the concept of duatism with special reference to determinism and possibilism.

Q4) Explain the system approaches in geography.

Q5) Describe various models used in geographical studies.

Q6) Give the definition need and significance of applied geography.

Q7) Write note on any two:

     a)   Contribution of Marco Polo and columbus.

     b)   Application of statistical geography.

     c)   Paradigms in geography.

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M.A./M.Sc.
GEOGRAPHY
Gg - 310 : Coastal Geomorphology
(2008 Pattern) (Semester - III)

Time : 3 Hours]   *[Max. Marks : 80*

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

Q1) What are the factors that govern the movement of oceanic water. Explain the process of refraction of waves and its result on coastal erosion.

Q2) What is tide? Explain various landforms produced by tidal process.

Q3) Explain causes and consequences of sea level changes.

Q4) Discuss the properties and types of coastal sediments with reference to gain size characterstics.

Q5) Define shore platform. Explain the morphology and formation of shore platforms.

Q6) Write an explanatory note on beach erosion as a coastal hazard.

Q7) Write notes on (any two).
   a) Morphological classification of coasts.
   b) Wave breakers.
   c) Coastal sand dunes.

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[5328]-33

M.A./M.Sc.

GEOGRAPHY

Gg - 311 : Applied Climatology

(2008 Pattern) (Semester - III)

Time : 3 Hours]   *[Max. Marks : 80*

Instructions to the candidates:

    1)   Attempt any four questions.

    2)   All questions carry equal marks.

    3)   Use of map stencils is allowed.

Q1) Explain radiation laws. Describe various instruments used to measure evapo-transpiration.

Q2) Discuss the relation between climate and crops and explain how plant environment is controlled artificially.

Q3) Describe the nature of global environmental change due to pollution and explain problems of urban air pollution.

Q4) Explain the significant climate variables and discuss effects of climate on construction operations.

Q5) Give the importance of satellite programming for monitoring crop condition and discuss development of Indian remote sensing in terms of crop monitoring.

Q6) Explain mechanism of climate change and describe various techniques to study climate change.

Q7) Write notes on any two:
    a)   Climate impact assessment.
    b)   Effect of climate on air transport.
    c)   Heating degree days and cooling towers.

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M.A./M.Sc.

GEOGRAPHY

Gg - 312 : Trade and Transport Geography

(2008 Pattern) (Semester - III) (Credit System)

Time : 3 Hours]   *[Max. Marks : 80*

Instructions to the candidates:

 1) *Attempt any four questions.*

 2) *All questions carry equal marks.*

 3) *Use of map stencils is allowed.*

Q1) Explain in detail functional approach of transport geography.

Q2) Explain various characteristics and relative significance of different modes of transport.

Q3) Discuss the transport network and economic development.

Q4) Give an account of the national highway development and planning in India.

Q5) Describe the modern theory of trade.

Q6) Explain the trade areas and economic blocks of the world.

Q7) Write notes on any two:

 a) Economic factors affecting airports.

 b) Types of trade.

 c) History of international trade.

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[5328]-35

M.A./M.Sc.
GEOGRAPHY
Gg - 313 : Urban Geography
(2008 Pattern) (Semester - III) (Paper - I)

Time : 3 Hours]

[Max. Marks : 80

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

Q1) Explain the significance of urban geography and its relation to other disciplines.

Q2) Describe the contemporary factors of urbanization.

Q3) Describe the characterstics and demarcation of CBD.

Q4) Explain the process of suburbanization. Conurbation and megalopolis.

Q5) Interrelate the problems of price of land, vertical and horizontal growth of cities and growth of slums.

Q6) Describe the urban policy in India.

Q7) Write note on any two:
   a) Homer Hoyet's model
   b) Urban population explosion in developing countries.
   c) Concept of city region.

M.A./M.Sc.
GEOGRAPHY
Gg - 314 : Geoinformatics - III
(2008 Pattern) (Semester - III)

Time : 3 Hours]

[Max. Marks : 80

Instructions to the candidates:
1) *Attempt any four questions.*
2) *All questions carry equal marks.*
3) *Use of map stencil and calculator is allowed.*

Q1) Giving suitable examples explain Zonal and Global grid operations in spatial analysis.

Q2) Discuss with suitable examples various application areas of DEM & DTM.

Q3) What is image enhancement? Discuss various methods of image enhancement.

Q4) Give an account of Classification accuracy in digital image processing.

Q5) Explain basic concepts of Radar and discuss the utility of SRTM and hyper spectral remote sensing.

Q6) Discuss with suitable examples various applications of Microwave and thermal remote sensing.

Q7) Write notes on any two:

    a)   Point pattern analysis

    b)   TVI and GNDVI

    c)   SLR and LIDAR

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M.A/M.Sc.

GEOGRAPHY

Gg-320 : Multivariate Statistics

(2008 Pattern) (Semester-III) (Credit System)

Time : 3 Hours]   *[Max. Marks : 80*

Instructions to the candidates:

　　1)　Attempt any four questions.

　　2)　Use of calculators and Statistical tables is allowed.

　　3)　Figures to the right indicate full marks.

Q1) a)　Define following matrices giving suitable examples.　　　　**[6]**

　　　　i)　　Diagonal matrix,

　　　　ii)　　Lower triangular matrix,

　　　　iii)　　Column matrix

　　b)　Find the unknowns in the following simultaneous equations using the matrix solution.　　**[8]**

$$5x \quad - y \quad +12z = 46$$
$$4x \quad + 4y \quad -4z \quad = 24$$
$$0.9x - 0.5y \quad -0.3z = 2.4$$

　　c)　Find determinant and adjoint of the following matrix:　　　　**[6]**

$$A = \begin{pmatrix} 1 & 2 & 3 \\ 6 & 1 & 3 \\ 2 & 1 & 4 \end{pmatrix} \qquad D = \begin{pmatrix} 2 & 5 \\ 3 & 8 \end{pmatrix}$$

Q2) a) Find the cubic regression equation from the following data **[15]**

$\Sigma x = 5.5$ $\Sigma xy = -5.3$ $\Sigma x^2y = -5.5$ $\Sigma x^3y = -4.7$ $\Sigma y = 1$

$\Sigma x^2 = 3.4$ $\Sigma x^3 = 3.0$ $\Sigma x^4 = 2.5$ $\Sigma x^5 = 2.2$ $\Sigma x^6 1.9$

$\bar{x} = 0.6$ $\bar{y} = 0.8$

b) Describe the nature of bivariate nonlinear relationships in physical geography. **[5]**

Q3) a) Find multiple regression equation from the following matrix of variance covariance **[15]**

Mean values for $\bar{a} = 6, \bar{b} = 5, \bar{c} = 17$ and $\bar{d} = 4.5$

	a	b	c	d
a	5	0.67	0.08	−1.25
b		4.7	0.5	4.08
c			5.5	1.6
d				9.3

b) What is meant by multicolinearity? **[5]**

Q4) a) Find linear trend surface equation and plot the surface to a suitable scale. **[15]**

X	1	2	3	4	5	6	7	8	9	10
Y	9	5	6	3	2	1	9	9	10	1
Z	8	8	7	8	6	8	4	3	2	4

b) Describe the importance of Trend surface analysis in the study of spatially distributed data. **[5]**

Q5) Find first two principal components from the following matrix of correlations.

[20]

	a	b	c	d
a	1.00	0.7	0.4	0.3
b		1.00	0.1	0.1
c			1.00	0.8
d				1.00

Q6) Find first factor from the matrix of correlations and find the explained variance.

[20]

	a	b	c	d	e
a	1.00	–0.8	–0.6	0.8	0.3
b		1.00	–0.4	0.3	0.2
c			1.00	0.5	0.1
d				1.00	–0.4
e					1.00

Q7) Write notes (any two): **[20]**

a) Bivariate and Multivariate analysis.

b) Multiple regression.

c) Factor scores.

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M.A/M.Sc.

GEOGRAPHY

Gg-321 :POLITICAL GEOGRAPHY

(2008 Pattern) (Semester - III)

Time : 3 Hours]   *[Max. Marks : 80*

Instructions to the candidates:

  1)   *Attempt any four questions.*

  2)   *All questions carry equal marks.*

  3)   *Draw figures / Maps wherever necessary.*

  4)   *Use of Map stencils is allowed.*

Q1) Define political geography and explain its nature and scope.

Q2) Explain the types of approaches in political geography and highlight functional and landscape approach in detail.

Q3) Discuss and differentiate the concepts of Nation and State with geographical perspective.

Q4) Distinguish between frontiers and boundaries. Describe functional or morphological classification of boundaries.

Q5) Discuss the global geostrategic views of Mackinder.

Q6) Classify the resources and correlate them with national strategy and management.

Q7) Write notes on any two:

  a) Geopolitical importance of Indian Ocean.

  b) Problems of border states of India.

  c) Unity in diversity in India.

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M.A/M.Sc.

GEOGRAPHY

Gg-322 :Soil Geography

(2008 Pattern) (Semester - III)

Time : 3 Hours]

[Max. Marks : 80

Instructions to the candidates:

  1)   Attempt any four questions.

  2)   All questions carry equal marks.

  3)   Use of Map stencils is allowed.

Q1) Discuss the relationship between human geography and soils.

Q2) Describe the role of parent material and topography in the formation of soil.

Q3) Give an account of organic matter and humus content in the soil.

Q4) Explain the colour and structure of soil as a morphological feature of soil horizons.

Q5) Describe the process of formation of secondary clay minerals and their distribution in soil profile.

Q6) Write an account of land suitability classification.

Q7) Write notes on any two:

 a) Soil biomass.

 b) Deforestation.

 c) Soil degradation.

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M.A./M.Sc.

GEOGRAPHY

Gg - 401 : Resource Management

(2008 Pattern) (Semester IV)

Time : 3 Hours]   *[Max. Marks : 80*

Instructions to the candidates:

    1)   *Attempt any four questions.*

    2)   *All questions carry equal marks.*

    3)   *Draw figures/maps wherver necessary.*

Q1) What is resource management? Discuss the models of resource management.**[20]**

Q2) Discuss the methods of conservation and management of mineral resources.**[20]**

Q3) Write an account of application of remote sensing technique in resource appraisal and management. **[20]**

Q4) Explain the various bases of classification of resources. **[20]**

Q5) "Sustainable resource development is the need of the hour" Discuss. **[20]**

Q6) Discuss the development policies of industries in India. **[20]**

Q7) Write notes (Any Two): **[20]**
    a)   Approaches to resource management.
    b)   Integrated surveys of natural resources
    c)   Population as a resource

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M.A./M.Sc.

GEOGRAPHY

Gg - 420 : Regional Planning and Development

(2008 Pattern) (Semester-IV)

Time : 3 Hours]   *[Max. Marks : 80*

Instructions to the candidates:

1)   Attempt any four questions.

2)   All questions carry equal marks.

3)   Use of map stencils is allowed.

Q1) Discuss the role of geography in regional planning.

Q2) What is region? Discuss various types of regions.

Q3) Discuss the importance of regional and techno-economic surveys for regional planning.

Q4) What is regional development? Discuss various planning strategies with suitable examples.

Q5) Discuss experience of regional planning in India.

Q6) What is regionalisation? Discuss regionalisation for planning with respect to metropolitan regions.

Q7) Write notes (Any two):

a)   Regional disparities in India.

b)   Block level planning.

c)   Role of Geography in Regional Planning.

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M.A./M.Sc.

GEOGRAPHY

Gg - 421 : Geography of Water Resources

(2008 Pattern) (Semester-IV)

Time : 3 Hours]   *[Max. Marks : 80*

Instructions to the candidates:

    1)   Attempt any four questions.

    2)   All questions carry equal marks.

    3)   Use of map stencils is allowed.

Q1) Give an account of distribution of worlds surface water resources with respect to glaciers and rivers.

Q2) Describe water supply and utilization methods for agricultural uses of water.

Q3) Write the details of different methods of irrigation.

Q4) Outline the major problems associated with water resources.

Q5) Give an account of domestic and commercial use of water.

Q6) Discuss integrated basin planning as a useful methodology in water conservation.

Q7) Write notes (Any Two):

    a)   India - Bangladesh water dispute.

    b)   Water harvesting techniques.

    c)   Soil - water - crop relationship.

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M.A./M.Sc.

GEOGRAPHY

Gg - 422 : Biogeography

(2008 Pattern) (Semester-IV)

Time : 3 Hours]   *[Max. Marks : 80*

Instructions to the candidates:

    1)   Attempt any four questions.

    2)   All questions carry equal marks.

    3)   Use of map stencils is allowed.

Q1) Explain the role of biogeography in environmental studies.

Q2) "Altitude affects zonation of the biographical pattern". Elucidate.

Q3) Explain the dispersal and colonization processes with suitable examples.

Q4) Write a note on the evolution of life on earth.

Q5) How pattern of climate acts as physical limitation of life?

Q6) Discuss biogeography patterns and importance of the mid latitude grassland biome.

Q7) Write notes on (Any Two):

    a)   Speciation.

    b)   Habitat and microhabitats.

    c)   Island as an area of isolation.

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M.A./M.Sc.

GEOGRAPHY

Gg - 423 : Geography and Ecosystem

(2008 Pattern) (Semester-IV)

Time : 3 Hours]

[Max. Marks : 80

Instructions to the candidates:

1) Attempt any four questions.

2) All questions carry equal marks.

3) Draw figures/maps wherever necessary.

4) Use of map stencils is allowed.

Q1) Define ecosystem and explain spatial and temporal dimensions of ecosystem.

Q2) State major terrestrial ecosystems of the world and explain desert ecosystem in detail.

Q3) Explain different man made ecosystems in detail.

Q4) Give a detail account of ecology of tropical farming systems.

Q5) What is mountain ecosystem? Explain the impact of human activities on Aravali hills.

Q6) Explain National Environmental Tribunal Act of India.

Q7) Write notes (Any two):

a) Land resources and world food security.

b) Urban ecosystem.

c) Abiotic components of ecosystem.

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M.A/M.Sc.

GEOGRAPHY

Gg-424 : Research Methodology

(2008 Pattern) (Semester - IV)

Time : 3 Hours]

[Max. Marks :80

Instructions to the candidates:

1) *Attempt any four questions*
2) *All questions carry equal marks*
3) *Draw figures/maps wherever necessary*

Q1) Define surveying and explain the importance and types of surveying.

Q2) Discuss the methods and importance of morphometric analysis from toposheets.

Q3) Explain the data base creation from satellite image.

Q4) Discuss testing of hypothesis with the help of parametric and non parametric tests.

Q5) Evaluate the importance of components of field work.

Q6) Write a geographical essay on report writing.

Q7) Write notes (any two):

a) The UTM projection.

b) Principles of GIS.

c) Measurement of relative height from aerial photographs.

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M.A/M.Sc.

GEOGRAPHY

Gg-430 : Social and Cultural Geography

(2008 Pattern) (Semester - IV)

Time : 3 Hours]   *[Max. Marks :80*

Instructions to the candidates:

1) *Attempt any four questions*
2) *All questions carry equal marks*
3) *Use of Map stencils is allowed*

Q1) Describe the various Methodological approaches to the social - cultural Geography

Q2) Write the details of bases and concepts in social and cultural geography.

Q3) What is space? Discuss various types with their characteristics

Q4) Explain various models of social structure. Describe the impact of modernization on social structure.

Q5) Describe the characteristics of region and explain the various bases of social and cultural regions with examples

Q6) Discuss the patterns of social well being in India with reference to various states

Q7) Write notes (any two):

a) social areas in rural settlements

b) Physical quality of life

c) concept of equality

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M.A/M.Sc.

GEOGRAPHY

Gg-431 : Computer Geography

(2008 Pattern) (Semester - IV)

Time : 3 Hours] *[Max. Marks :80*

Instructions to the candidates:

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

Q1) Discuss the applications of computer techniques in Human Geography.

Q2) "Windows operating system" is useful system software for map-making".
Discuss.

Q3) State the significance of photo-paint in map making.

Q4) Explain how Auto CAD can be used in geographical studies.

Q5) What is GIS? Explain the applications of GIS in map making.

Q6) Discuss the applications of MS-Excel in data analysis and graphical
representation .

Q7) Write notes (any two):
a) Anatomy of computer
b) Corel DRAW and map-making
c) Digitization

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M.A/M.Sc.

GEOGRAPHY

Gg-432 : Oceanography

(2008 Pattern) (Semester - IV)

Time : 3 Hours]   *[Max. Marks :80*

Instructions to the candidates:

   1)   *Attempt any four questions*

   2)   *All questions carry equal marks*

   3)   *Draw figures/maps wherever necessary*

Q1) What is meant by Oceanography? Discuss post-war oceanography and modern trends in oceanography.

Q2) Write a detailed the general note on continental Drift Theory.

Q3) Explain in detail the general relief of the ocean bottoms.

Q4) Discuss in detail factors affecting the temperature of ocean water.

Q5) What is meant by sea waves / Elaborate the concept of wave reflection, refraction and diffraction.

Q6) What is meant ocean circulation? Write a detailed note on ocean currents in pacific ocean with the help of map.

Q7) Write notes (any two):

   a) Sea Floor spreading

   b) Viscosity of ocean water

   c) Oceanic oozes

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M.A/M.Sc.

GEOGRAPHY

Gg-433 : Natural And Man made Hazards

(2008 Pattern) (Semester - IV)

Time : 3 Hours]   *[Max. Marks :80*

Instructions to the candidates:

1) *Attempt any four questions*

2) *All questions carry equal marks*

3) *Use of map stencils is allowed*

Q1) How do you distinguish between hazards and disasters? Describe various types of hazards

Q2) Give an account of 'Drought as a hazard'.

Q3) What are geological hazards? Describe the areas affected by earthquakes and tsunami

Q4) Discuss various factors contributing to man-made hazards

Q5) Give an account of chemical hazards

Q6) Discuss effects of over exploitation of resources.

Q7) Write notes (any two):

a) Ozone depletion

b) Nuclear hazards

c) Tsunami

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Q1) Explain the geostrategic importance of Europe.

Q2) What do you mean by balance of trade? Explain the impact of globalization on international trade.

Q3) Give an account of water and land resources in Europe.

Q4) Explain the revolution of industrilization and their impact on economic development.

Q5) Disucss the growth and distribution of settlements in Europe.

Q6) Describe the development of tourism and it's importance in economic development of Europe.

Q7) Write notes (Any Two):

   a)   Major soil types in Europe.

   b)   Population composition of Europe.

   c)   Mineral resources of Europe.

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M.A/M.Sc.

GEOGRAPHY

Gg- 442: Regional Geography of South East Asia

(2008 Pattern) (Semester - IV)

Time : 3 Hours]   *[Max. Marks : 80*

Instructions to the candidates:

　　1)　Attempt any four questions.

　　2)　All questions carry equal marks.

　　3)　Draw figures /maps wherever necessary.

Q1) Explain the climatic characteristics of South East Asia.   **[20]**

Q2) Describe major soil types and distribution in South-East Asia.   **[20]**

Q3) Give an account of problems associated with agriculture in South- East Asia.**[20]**

Q4) Explain the advantages and disadvantages of modern economic policy of Malaysia.   **[20]**

Q5) Describe the factors affecting growth and distribution of population in South East Asia.   **[20]**

Q6) Give an account of international trade of south east Asia.

Q7) Write notes (Any Two):

　　a)　Importance of Tourism in South - east Asia.

　　b)　Growth and distribution of settlements in South - east Asia.

　　c)　Spatial distribution of major industries in South east Asia.

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M.A./M.Sc.

GEOGRAPHY

Gg- 443: Regional Geography of North America

(2008 Pattern) (Semester - IV)

Time : 3 Hours]

[Max. Marks : 80

Instructions to the candidates:

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

Q1) Describe characteristics of size of North America.

Q2) Describe major climatic types of North America.

Q3) Give an account of mineral resources of North America.

Q4) Describe salient features of Agriculture in North America.

Q5) Give an account of Growth and distribution of population in North America.

Q6) Discuss the scope of tourism in North America.

Q7) Write notes on any two:

   a)   Tourist centers in North America.

   b)   International trade in North America.

   c)   Balance of trade in North America.

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M.A/M.Sc.

GEOGRAPHY

Gg- 444: Geography of Japan

(2008 Pattern) (Semester - IV)

Time : 3 Hours]

[Max. Marks : 80

Instructions to the candidates:

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

Q1) Explain the physiographic structure of Japan.

Q2) Evaluate the geographical factors affecting development of Japan.

Q3) Describe the factors affecting agriculture of Japan.

Q4) Give an account of IT and electronic industries of Japan.

Q5) Critically evaluate the problems of million cities of Japan.

Q6) Elaborate the role of transportation in the development of trade in Japan.

Q7) Write notes (Any Two):

   a)   India -Japan relationship.

   b)   Nature of trade in Japan.

   c)   Marine resources of Japan.

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M.A/M.Sc.

GEOGRAPHY

Gg- 445: Geography of India

(2008 Pattern) (Semester - IV)

Time : 3 Hours]   *[Max. Marks : 80*

Instructions to the candidates:

    1)   *Attempt any four questions.*

    2)   *All questions carry equal marks.*

    3)   *Draw figures /Maps wherever necessary.*

Q1) Explain the economic position of India relation to world.

Q2) Describe the major river systems of Maharashtra.

Q3) Bring out the salient features of various seasons experienced in India.

Q4) Give and account of distribution and utilisation of petroleum and natural gas in India.

Q5) Evaluate the importance of sugarcane as an industrial crop in India.

Q6) Write a geographical essay on cotton textile Industry in India.

Q7) Write notes (Any two):

    a)   Distribution of population in India.

    b)   Development of Telengana region.

    c)   Distribution of major forest types in India.

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