[4831] - 11
M.A./M.Sc. (Semester - I)
GEOGRAPHY
Gg - 101 : Principles of Geomorphology
(2008 Pattern)

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 process Geomorphology.

Q2) Give an account of supporting evidences for Wegner's continental drift theory.

Q3) Discuss types of landforms associated with endogenic forces.

Q4) Define weathering and describe in short various types of weathering.

Q5) Give an account of Erosional landforms associated with work of river.

Q6) Give an account of the work of waves and tides in coastal areas.

Q7) Write notes on any two:
 a) History of Geomorphology.
 b) Faults and types of landforme.
 c) Parrel retreat model of slope.

❀ ❀ ❀

[4831] - 12
M.A./M.Sc. (Semester - I)
GEOGRAPHY
Gg - 102 : Principles of Climatology
(2008 Pattern)

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 composition of the atmosphere.

Q2) What is solar radiation? Explain the electromagnetic spectrum.

Q3) Explain the controls of air temperature.

Q4) Describe the observed distribution of surface pressure.

Q5) Describe the primary circulation of the atmosphere.

Q6) Explain the various types of lapse rate.

Q7) Write notes on Any Two:
   a)   Tropical climatology.
   b)   Factors affecting evaporation.
   c)   Synoptic method of weather forecasting.

❀ ❀ ❀

[4831] - 13

M.A./M.Sc. (Semester - I)
GEOGRAPHY
Gg - 103 : Principles of Economic Geography
(2008 Pattern)

Time : 3 Hours]

[Max. Marks : 80

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

Q1) Define and explain the nature and scope of Economic Geography.

Q2) Critically evaluate Von-Thunen's Model.

Q3) Explain the role of human resources in economic development.

Q4) Describe the significance of land and labour in economic production.

Q5) Explain in brief measures of economic development.

Q6) Describe Rostow's Model.

Q7) Write notes on Any Two:
   a) Privatization.
   b) Regional disparities in India.
   c) Recent trends in economic geography.

❀ ❀ ❀

[4831] - 14
M.A./M.Sc. (Semester - I)
GEOGRAPHY
Gg - 104 : Principles of Settlement and Population Geography
(2008 Pattern)

Time : 3 Hours]   *[Max. Marks : 80*
Instructions to the candidates:
    1)   *Attempt any four questions.*
    2)   *All questions carry equal marks.*
    3)   *Use of the map stencils is allowed.*

Q1) Discuss the evolution of population geography.

Q2) Describe the various patterns of settlements.

Q3) Discuss the economic and social factors influencing nucleation of settlements.

Q4) Critically examine the Demographic Transition Model of population growth.

Q5) Describe the factors of urban growth.

Q6) Write an essay on population as a resource.

Q7) Write notes on Any Two:
    a)   Physical factors influencing growth and distribution of settlement.
    b)   Losche's model of settlements.
    c)   Nodality and centrality.

❈ ❈ ❈

[4831] - 21

M.A./M.Sc. (Semester - II)
GEOGRAPHY

Gg - 201 : Quantitative Techniques in Geography

(2008 Pattern)

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

Instructions to the candidates:
   1)   ***Attempt any four questions.***
   2)   ***Use of calculator and statistical table is allowed.***
   3)   ***Figures to the right indicate full marks.***

Q1) a)   Write a note on grouped and ungrouped data.   **[6]**

     b)   Calculate standard deviation and variance for the following ungrouped data of size of pebbles in cm in various potholes in a bedrock river channel.   **[14]**

4.6	4.8	5.5	27.2	21.2	8.3	15.1	10.2	16.3	12.3	14.3	4.9	14.5	15
6.6	16.8	19.7	22.2	13.4	21.6	1.1	11.2	12.3	29.2	5.5	8.4	20	16.2

Q2) a)   What are interval and ratio scales of measurement?   **[6]**

     b)   Calculate kurtosis for the following data of size of pebbles in mm in a pot hole.   **[14]**

Class	1-50	51-100	101-150	151-200	201-250	251-300
Frequency	5	10	21	10	6	5

Q3) a)   Describe meaning and description of median.   **[6]**

b) Calculate 3-year moving average for the following data of annual rainfall totals in cm for Burhanpur Station (Madhya Pradesh). Plot the data and interpret. **[14]**

Year	1933	1934	1935	1936	1937	1938	1939	1940	1941	1942
Rainfall in cm	89	96	102	107	83	101	75	107	79	112
Year	1943	1944	1945	1946	1947	1948	1949	1950	1951	1952
Rainfall in cm	89	125	97	88	85	120	123	74	69	30

Q4) a) What is probability? **[6]**

b) Find out residuals and explained variance for employment and education data with the help of simple regression equation that is $\hat{Y} = 46 + 0.44(X)$. Percentage employed in industrial orders is represented by X and percentage left school before age of 15 is shown by Y. The correlation coefficient (r) is 0.64. Test the correlation at 0.05 level of significance.

X	60	60	29	48	25	12	40	68	39	29	62	24	40	57	53	60
Y	75	75	72	59	45	61	70	70	66	59	82	36	66	80	62	75

[14]

Q5) a) Write meaning of unbiased random sample. **[6]**

b) The following table gives the data of % literacy (X) and infant mortality (Y) in an area. Obtain the linear regression equation. Plot the regression line and scattergram. **[14]**

X	23	45	56	89	25	68	39	56	77	48	90
Y	77	67	42	20	69	23	56	32	53	29	23

Q6) Apply the ANOVA (F) test for the following data of sand content of 3 soil samples from 3 different regions. Test the hypothesis at 0.05 level of significance to show that there is no regional variation in the soil samples. **[20]**

	Sample I	Sample II	Sample III
Region I	5.9	3.4	4.4
Region II	2.7	6.1	3.1
Region III	3.4	8.7	11.2

Q7) Write short notes on **any two:**   [20]

    a)   Parametric and Non-parametric tests.

    b)   Null and Alternate Hypothesis.

    c)   Descriptive and inferential statistics.

❀ ❀ ❀

[4831] - 22
M.A./M.Sc. (Semester - II)
GEOGRAPHY
Gg - 210 : Tropical Geomorphology
(2008 Pattern)

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) Define tropics and discuss peculiarities of tropical climate.

Q2) Explain factors influencing tropical weathering.

Q3) Distinguish between duricrust and laterite and describe various divisions of laterite profile.

Q4) Mention the factors affecting mass movements and explain the rapid and slow mass movement processes in the tropics.

Q5) Define boulder inselburg. Explain its origin and evolution in the tropics.

Q6) Explain the morphology of planation surfaces in the tropics.

Q7) Write short notes on (any two):
a) Quaternary changes in climate.
b) Tropical coasts.
c) Residual landforms.

❀ ❀ ❀

[4831] - 23
M.A./M.Sc. (Semester - II)
GEOGRAPHY
Gg - 211 : Synoptic Climatology
(2008 Pattern)

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) Discuss formation and decay of hurricanes and environmental impact of its occurrences.

Q2) Describe air masses of North America and types of fronts.

Q3) Explain in detail, the idealized weather of a wave cyclone and its life cycle.

Q4) Explain the formation of clouds and fog.

Q5) Discuss short, medium and long range weather forecasting.

Q6) Give benefits of weather forecasting in modeling of pollutant distribution and agriculture.

Q7) Write notes on **any two**:
    a)   Nature of Synoptic Climatology.
    b)   Observing and displaying systems of weather data by India Meteorological Services.
    c)   Characteristics of easterly waves.

❀ ❀ ❀

[4831] - 24
M.A./M.Sc. (Semester - II)
GEOGRAPHY
Gg - 212 : Agricultural Geography
(2008 Pattern)

Time : 3 Hours]   *[Max. Marks : 80*
Instructions to the candidates:
1) *Attempt any four questions.*
2) *All questions carry equal marks.*
3) *Use of the map stencils is allowed.*

Q1) Describe the nature and scope of Agricultural Geography.

Q2) Explain with examples 'significance of agriculture in world region.

Q3) Explain the influence of technological factors on agriculture.

Q4) Write an essay on Mixed farming.

Q5) Define drought. Explain the causes and effects of drought.

Q6) Discuss the views of Whittlesey regarding agricultural regionalisation.

Q7) Write notes on any two:
   a) Systematic approach.
   b) Shifting cultivation.
   c) Importance of land use surveys.

❀ ❀ ❀

[4831] - 25
M.A./M.Sc. (Semester - II)
GEOGRAPHY
Gg - 213 : Population Geography
(2008 Pattern)

Time : 3 Hours]

[Max. Marks : 80

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

Q1) Bring out the salient features of population growth.

Q2) Critically examine 'Marx's Population Theory'.

Q3) Describe the physical factors affecting distribution of world population.

Q4) Discuss various types of migration.

Q5) Explain the importance of population projection in industrial and agricultural development.

Q6) Discuss the literacy and occupation composition of population.

Q7) Write notes on Any Two:
   a) Approaches to the study of population geography.
   b) Factors affecting fertility.
   c) Foetal and infant mortality.

❁ ❁ ❁

[4831] - 26
M.A./M.Sc. (Semester - II)
GEOGRAPHY
Gg - 214 : Geo-informatics (Paper - I)
(2008 Pattern)

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 'Spatial Information Theory'.

Q2) Explain nominal, ordinal, ratio and cyclic scales giving suitable examples.

Q3) What is DBMS? State the advantages of DBMS.

Q4) Explain the process of digitization and explain error detection and correction as a function of editing.

Q5) Give an account of 'Operations from Set Theory'.

Q6) Explain local and focal grid operations in GIS.

Q7) Write notes on any two:
   a)   Logical relationship.
   b)   Quadtree structure.
   c)   Concept of space and time.

❀ ❀ ❀

P2322

[4831] - 27
M.A./M.Sc. (Semester - II)
GEOGRAPHY
Gg - 220 : Fluvial Geomorphology
(2008 Pattern)

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 Glock's model of drainage network development.

Q2) How do you distinguish between steady flow and unsteady flow? Explain regimes of flow.

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

Q4) Discuss the relation of discharge with width, depth, velocity and gradient.

Q5) Give the types of fluvial erosion and erosive processes. Explain factors affecting fluvial erosion.

Q6) Define river metamorphosis. Elaborate quaternary fluvial systems.

Q7) Write notes on any two:
  a) Belt of no erosion.
  b) Gravel bed and bedrock channels.
  c) Flood plains and associated features.

❀ ❀ ❀

[4831] - 28
M.A./M.Sc. (Semester - II)
GEOGRAPHY
Gg - 221 : Monsoon Climatology
(2008 Pattern)

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 Classical Theory of Indian Monsoon.

Q2) Explain the effect of differential heating of land and water and effect of rotation on driving mechanism on Monsoon.

Q3) Explain the role of surface and upper winds in summer Monsoon.

Q4) Give an account of Monsoon depressions and offshore trough along west coast of India.

Q5) Explain long period trends in Indian Monsoon.

Q6) Explain the important ENSO indicators and cross equatorial flow in Monsoon forecasting.

Q7) Write notes on any two:

    a)   Environmental importance of Monsoon Climatology.

    b)   Fohn's concept of origin of Monsoon.

    c)   Monsoon of South Asia.

❀❀❀

[4831] - 29
M.A./M.Sc. (Semester - II)
GEOGRAPHY
Gg - 222 : Industrial Geography
(2008 Pattern)

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 socio-economic factors affecting industrial location.

Q2) Write a geographical eassy on agglomeration of industries.

Q3) Account for the changing pattern and distribution of cotton-textile industry.

Q4) Discuss the problems and prospects of industrial regions of Western Europe.

Q5) Elaborate the locational factors of industrial regions of India.

Q6) Discuss the role of software industry in Indian economy.

Q7) Write notes on any two:
   a)   Manufacturing and regional economics.
   b)   Isard's Model.
   c)   Distribution of automobile industry.

❄ ❄ ❄

[4831] - 30

M.A./M.Sc.

GEOGRAPHY

Gg - 223 : Geography of Rural Settlement

(2008 Pattern)

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 various parts of the world.

Q2) Describe various factors affecting growth of settlement.

Q3) Explain the centrality and hierarchy of service villages and trading centers with suitable examples.

Q4) Explain socio-cultural morphogenesis of rural settlements with suitable examples.

Q5) Describe the causes and consequences of rural-urban migration.

Q6) Give an account of settlement patterns in Maharashtra.

Q7) Write note on any two:

  a)   Dispersion.

  b)   Intensity of landuse.

  c)   Building material.

❀ ❀ ❀

[4831] - 30A

M.A./M.Sc. (Semester - II)
GEOGRAPHY
Gg - 224 : Geoinformatics (Paper - II)
(2008 Pattern)

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 secondary data sources in Geoinformatics.

Q2) Give an account of Electromagnetic Spectrum.

Q3) Give an account of interaction of EMR with earth's surface.

Q4) Give an account of flight planning and overlaps in aerial photography.

Q5) Give an account of air borne and space borne platforms in Remote Sensing.

Q6) Discuss various factors governing the interpretability of satellite image and aerial photograph.

Q7) Write notes on any two:
 a) GPS.
 b) Types of sensors.
 c) Concept of black body radiation.

❀ ❀ ❀

[4831] - 31
M.A./M.Sc.
GEOGRAPHY
Gg - 301 : Theoretical and Applied Geography
(2008 Pattern)

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 contribution of Strabo and Eratosthenes in the development of geographical thought.

Q2) Give a brief account of British and American school of thought to the development of Geographical thought.

Q3) Examine the concept of dualism with reference to systematic versus regional geography.

Q4) Describe the structure and elements of systems with their relationships.

Q5) Explain the significance of remote sensing and GIS in the study of geography.

Q6) Explain the application of geographical concepts and techniques in landuse and regional planning.

Q7) Write note on any two:
a) Contribution of W.M. Davis.
b) System approach in geography.
c) Dichotomies in geography.

❀ ❀ ❀

[4831] - 32
M.A./M.Sc. (Semester - III)
GEOGRAPHY
Gg - 310 : Coastal Geomorphology
(2008 Pattern)

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 wave and describe various parameters of waves.

Q2) Discuss the equilibrium theory of tides.

Q3) Give a brief review of pleistocene sea levels, glacial eustasy and staircase theory.

Q4) Write an explanatory note on coastal sediments.

Q5) Explain morphodynamics of deltas and describe its morphology in detail.

Q6) Give an account of wave-dominated coasts giving suitable examples.

Q7) Write notes on any two:
    a)   Morphological coastal classification.
    b)   Corals and coral reefs.
    c)   Salt intrusion and subsidence of coastal aquifers.

❀ ❀ ❀

[4831] - 33
M.A./M.Sc. (Semester - III)
GEOGRAPHY
Gg - 311 : Applied Climatology
(2008 Pattern)

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 development of Applied Climatology and describe instruments used for measurement of temperature.

Q2) Bring out the relationship between climate and crops and explain impact of climate on clothing.

Q3) Explain nature of urban climate and problems of urban air pollution.

Q4) Elaborate impact of climate on construction operation.

Q5) Explain effect of climate on water and air transport.

Q6) Give the importance of Remote Sensing in canopy transpiration and crop stress study.

Q7) Write notes on any two:
   a) Cooling towers.
   b) Ocean floor sediments.
   c) Impact of climate on livestock.

❈❈❈

[4831] - 34
M.A./M.Sc. (Semester - III)
GEOGRAPHY
Gg - 312 : Trade and Transport Geography
(2008 Pattern)

Time : 3 Hours]
[Max. Marks : 80

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

Q1) Explain in brief relative significance of road and railways.

Q2) Discuss the factors associated with development of airways.

Q3) Critically evaluate the growth of urban transportation in developing country.

Q4) Explain the corelation between transportation network and economic development.

Q5) Explain the role of trade in economic development.

Q6) Discuss the theory of Comparative Advantage.

Q7) Write notes on any two:
   a) Models of network changes.
   b) Significance of trade.
   c) Functional approach.

❀ ❀ ❀

[4831] - 35

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

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 concept of urbanisation and take a brief review of spatio-temporal variations in world urbanisation.

Q2) Discuss the various approaches to the urban-classification.

Q3) Explain the age-sex and occupational structure of urban populations.

Q4) Explain the term 'city region' and describe the methods to demorcate the same.

Q5) " The growth of slums is an outcome of rising prices of urban land". Discuss

Q6) Discuss the urban development and urban policy in India.

Q7) Write notes on Any Two:
   a) Significance of urban geography.
   b) Concept of conurbation and satellite towns.
   c) Rank-size relationship and the rank-size rule.

❀ ❀ ❀

[4831] - 36

M.A / M.Sc. Geography (Semester - III)
Gg - 314 : GEO-INFORMATICS - III
(2008 Pattern)

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 simple to complex grid operations in GIS.

Q2) Give an account of spatial interpolation.

Q3) Discuss single layer and multiple layer operations in spatial analysis.

Q4) Discuss various types of errors in satellite data acquisition.

Q5) Give an account of unsupervised image classification.

Q6) Give an account of classification accuracy in Digital Image Processing (DIP).

Q7) Write notes on any two :

   a)   Interpolation techniques.

   b)   TVI and GNDVI.

   c)   Resolution.

❀ ❀ ❀

[4831] - 37

M.A./ M.Sc (Semester - III)
GEOGRAPHY
Gg - 320 : Multivariate Statistics
(2008 Pattern)

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

Instructions to the candidates :
   1)   Attempt any four questions.
   2)   All questions carry equal marks.
   3)   Use of calculators, statistical tables etc. is allowed.

Q1) a)   Explain any two objectives of multivariate statistics.   **[6]**

b)   Find the inverse of the matrix A   **[6]**

$$A = \begin{pmatrix} 45 & 65 & 25 \\ 88 & 21 & 20 \\ 25 & 36 & 15 \end{pmatrix}$$

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

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

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

$$8x - 3y + 4z = 39$$

Q2) Find and plot the second degree bivariate non linear regression equation for the following observations.   **[20]**

X	20	21	25	32	36	41	43	49
Y	1	2	10	11	13	10	9	8

P.T.O.

Q3) Using the following data compute multiple regression equation. Obtain the explained variance and interpret the results. **[20]**

	X1	X2	Y	
Means	7.1429	5.2714	12.7143	n=7
Variances	16.1225	0.2506	78.4898	
Covariances	X1Y	X2Y	X1X2	
	34.1837	4.3204	2.0041	

Q4) Find the equation and plot the linear Trend Surface for the following observations. Calculate the explained variance. **[20]**

X	10	10	20	30	30	20	40	40	50	50	60	60
Y	1	2	4	2	6	8	3	8	4	7	6	8
Z	18	15	14	14	12	12	13	11	12	11	10	8

Q5) a) Obtain the first principle component from the given correlation matrix and interpret the results. **[14]**

	X1	X2	X3	X4
X1	1.0000			
X2	0.12	1.0000		
X3	0.65	0.60	1.0000	
X4	0.38	0.50	0.08	1.0000

b) Define the terms component loadings and communalities. **[6]**

Q6) The following table depicts the correlation values for six variables, obtain the first factor and explained variance. **[20]**

	X1	X2	X3	X4	X5	X6
X1	1	0.72	0.95	0.65	0.85	0.98
X2		1	0.56	0.56	0.8	0.45
X3			1	0.75	0.92	0.66
X4				1	0.64	0.71
X5					1	−0.52
X6						1

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

    a)   Differentiate between bivariate and multivariate statistics.

    b)   Higher order TSA.

    c)   Application of PCA in geography.

❀ ❀ ❀

[4831] - 38

M.A / M.Sc. (Semester - III)
GEOGRAPHY
Gg - 321 : Political Geography
(2008 Pattern)

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 'Political geography'. Describe its nature and scope.

Q2) Explain the geopolitical significance of Diego-Garcia.

Q3) Examine the global strategic views of Mahan.

Q4) Define the boundaries and describe the genetic classification of boundaries.

Q5) Classify the resources and explain the relationship between resources and national strategy.

Q6) Describe the interstate water and language disputes in India.

Q7) Write notes on any two :
  a) Mackinder's heartland concept.
  b) Problems of Border States in India.
  c) Morphological classification of boundaries.

❀ ❀ ❀

[4831] - 39

M.A. /M.Sc. (Semester - III)
GEOGRAPHY
Gg - 322 : Soil Geography
(2008 Pattern)

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

Instructions to the candidates :
   1)   Attempt any four questions.
   2)   All questions carry equal marks.
   3)   Use of calculators, statistical tables etc. is allowed.

Q1) Discuss the importance of study of soils.   **[20]**

Q2) Discuss various factors of soil formation.   **[20]**

Q3) Describe physical properties of soil.   **[20]**

Q4) Explain the development of soil profile.   **[20]**

Q5) Give an account of secondary clay minerals and their distribution in the profile.
                                                                    [20]

Q6) Write an account of soil classification systems.   **[20]**

Q7) Write notes on any two :   **[20]**
   a)   Salinization.
   b)   Overgrazing.
   c)   Paleosoils.

❁ ❁ ❁

[4831] - 41

M.A. /M.Sc. (Semester - IV)

GEOGRAPHY

Gg - 401 : Resource Management

(2008 Pattern)

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 concept of and approaches to resource management.

Q2) How are the resources classified?

Q3) What is conservation of resources? Explain the methods of conservation of soil resources.

Q4) The remote sensing techniques have changed the nature of resource appraisal and management to a degree never before? Discuss.

Q5) Explain the concept of sustainable management.

Q6) Discuss the development policies of water and forest resources in India.

Q7) Write notes on any two :

　a)　Integrated surveys of natural resources.

　b)　Appraisal of physical resources.

　c)　Integrated resource management.

❁ ❁ ❁

[4831] - 42

M.A. /M.Sc. (Semester - IV)
GEOGRAPHY
Gg - 420 : Regional Planning & Development
(2008 Pattern)

Time : 3 Hours]
[Max. Marks : 80

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

Q1) Explain in detail the process of planning.

Q2) Explain the types of regions.

Q3) "Regional survey and regional planning are associated with each other". Discuss.

Q4) What do you mean by planning strategies? Explain dispersal stategy.

Q5) Explain the methodology of regional planning.

Q6) Give an account of regional disparities in India.

Q7) Write notes on any two :
   a) Regional survey.
   b) Methods of regionalisation.
   c) Process of regional planning.

❁ ❁ ❁

[4831] - 43

M.A. /M.Sc. (Semester - IV)
GEOGRAPHY
Gg - 421 : Geography of Water Resources
(2008 Pattern)

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) Water as a most important and renewable resource – Discuss.

Q2) Explain soil-water-crop relationship and need of water conservation for agricultural sector.

Q3) Discuss the municipal demand and use of water and highlight the measures to be taken for urban waste water treatment.

Q4) What is meant by flood? Write an account of flood management practices.

Q5) Describe different measures to be taken for increasing groundwater level in a watershed.

Q6) Abundance and scarcity of water resources creates environmental problems- Elaborate.

Q7) Write notes on any two :
  a)   Hydrological Cycle.
  b)   Industrial affluents.
  c)   India Water Treaties.

❁ ❁ ❁

[4831] - 44

M.A. /M.Sc. (Semester - IV)
GEOGRAPHY
Gg - 422 : Biogeography
(2008 Pattern)

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 history of biogeography.

Q2) Discuss various eco-geographic trends as a biogeographic pattern.

Q3) 'Dispersal and colonization' as a basic biogeographic processes. Discuss.

Q4) Discuss various patterns of biodiversity.

Q5) 'Environmental gradients as a major physical limiting factor of life'Discuss.

Q6) Give an account of 'hazards of Island life'.

Q7) Write notes on any two :

     a)   Taiga biome.

     b)   Mapping of biomes at a global scale.

     c)   Changing patterns of continents.

❀ ❀ ❀

[4831] - 45
M.A. /M.Sc. (Semester - IV)
GEOGRAPHY
Gg - 423 : Geography and Ecosystem
(2008 Pattern)

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 the term ecosystem. Explain the energy flow with in the food chains and food webs.

Q2) What is the meaning of the terrestrial ecosystems? Explain in detail the agriculture and forest ecosystems of the world.

Q3) Give an account of land resources and world food security.

Q4) Write an account of resources use and ecological imbalance with reference to soils and forests.

Q5) Discuss the need of preservation and conservation of the ecosystem through resource management.

Q6) Write a detailed account of the man induced environmental and ecological changes by Sardar Sarovar dam.

Q7) Write notes on any two :
   a)   Uniformitarianism and life on earth.
   b)   Carbon dioxide and phosphorous cycle.
   c)   Stockholm conference.

❀ ❀ ❀

[4831] - 46
M.A. /M.Sc.
GEOGRAPHY
Gg - 424 : Research Methodology
(2008 Pattern)

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 principles and method of theodolite survey.

Q2) Explain drainage basin demarcation with suitable examples.

Q3) Describe data base creation from aerial photographs and satellite images.

Q4) Explain parametric and non-parametric tests.

Q5) "Questionnaire and interviews are major components of field work". Discuss.

Q6) Discuss the significance of applications of research methods and analysis in report writing.

Q7) Write notes on any two :

   a)   Indexing systems of SOI Toposheet.

   b)   Multivariate correlation.

   c)   Formulation of research problem.

❁ ❁ ❁

[4831] -47
M.A./M.Sc. GEOGRAPHY
Gg-430: Social and Cultural Geography
(2008 Pattern)

Time : 3 Hours]

[Max. Marks : 80

Instructions to the candidates:

1)   *Attempt any four questions.*

2)   *All questions are compulsory.*

3)   *Use of map stencils is allowed.*

Q1) Discuss nature and scope of social and cultural geography.

Q2) Explain the concept of humanism and idealism.

Q3) Discuss personal, social and public space.

Q4) Discuss the role of race, religion and caste in cultural diversity.

Q5) Discuss the socio-cultural indicators of social wellbeing.

Q6) Describe the socio-economic and cultural characteristics of rural settlements.

Q7) Write notes on any two.

a)   Social segregation.

b)   Interaction and social relation.

c)   Equality and Welfare.

✐✐✐✐

[4831] -48

M.A./M.Sc. (Semester-IV)
Gg-431: Computer Geography
(2008 Pattern)

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 various applications of computer in physical geography.

Q2) Define computer and describe various types of computer.

Q3) Give an account of windows operating system.

Q4) Discuss applications of Paint in map making.

Q5) Explain how Auto CAD can be used in geographical studies.

Q6) Discuss how MS-Excel is effective tool in geographical data analysis.

Q7) Write notes on any two.

   a) Computer cartography

   b) Use of Internet

   c) Functions of operating system.

////

[4831] -49

M.A./M.Sc. (Semester-IV)
GEOGRAPHY
Gg-432: Oceanography
(2008 Pattern)

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 origin of the ocean basins.

Q2) Describe relief features observed on the ocean floor.

Q3) Discuss the factors affecting density of sea water.

Q4) Explain the formation of sea waves and their types.

Q5) Describe varies types of tides.

Q6) Describe different types of marine sediments and their origin.

Q7) Write short notes on (any two)

    a)   Modern oceanography.

    b)   Pacific ocean currents.

    c)   Hydrogenous particles.

////

[4831] -50

M.A./M.Sc. (Semester-IV)
GEOGRAPHY
Gg-433: Natural and Man-made Hazards
(2008 Pattern)

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 and Calculator is allowed.*

Q1) What are natural hazards? Explain the risk and vulnerability assessment of natural hazards.

Q2) Explain the causes and effects of droughts as natural hazards.

Q3) Explain the factors contributing to man-made hazards.

Q4) Give an account of the effects of population growth.

Q5) Examine the nature and consequences of global warming.

Q6) Describe the structural and non-structural measures of disaster management.

Q7) Write notes on any two of the following:

  a) Causes of land slides.

  b) Floods as natural hazards.

  c) Desertification in India.

[4831] -51

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

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 major vegetation types and their distribution in Europe.

Q2) Give an account of energy resources of Europe.

Q3) Explain the development of industrial activities in Europe.

Q4) Give an account of Population resources of Europe.

Q5) Explain the development of 'Megalopolis' and problems of urbanization in Europe.

Q6) Explain the scope of tourism. Describe the major tourist centres in Europe.

Q7) Write notes on <u>Any Two</u>

  a)   Geological structure of Europe.

  b)   Balance of trade in Europe.

  c)   Industrial revolution in Europe.

////

[4831] -52

M.A./M.Sc. (Semester-IV)
GEOGRAPHY
Gg-442: Regional Geography of South East Asia
(2008 Pattern)

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 geostrategic importance of South East Asia.

Q2) Explain the salient features of agriculture in South East Asia.

Q3) Discuss the problems and prospects of industrialization in South East Asia.

Q4) Describe the balance of trade and impact of globalization in South East Asia.

Q5) Give an account of Population composition in South East Asia.

Q6) Explain plantation agriculture in South East Asia.

Q7) Write notes on any two

   a)   Major soil types & their distribution in South East Asia.

   b)   Problems of Urbanization in South East Asia.

   c)   Importance of tourism in South East Asia.

////

[4831] -53

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

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 major types of vegetation and their distribution in North America.

Q2) Give an account of water and land resources of North America.

Q3) Discuss the problems and prospects of agriculture in North America.

Q4) Explain the trading Partners and membership of international trade treaties.

Q5) Give an account of population composition in North America.

Q6) Explain the development of 'Megalopolis' and problems of urbanization in North America.

Q7) Write short notes on any two

  a) Geostrategic importance of North America.

  b) Problems of industrialization in North America.

  c) Tourist centres in North America.

[4831] -54

M.A./M.Sc. (Semester-IV)
GEOGRAPHY
Gg-444: Geography of Japan
(2008 Pattern)

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 characteristics of west flowing rivers of Japan.

Q2) Give an account of distribution of major minerals and their production in Japan.

Q3) Explain the production and distribution of major crops in Japan.

Q4) Explain the relation between ocean transport and trade of Japan.

Q5) Give an account of population composition of Japan.

Q6) Discuss the problems of 'Million cities' of Japan.

Q7) Write notes on any two

   a)   Major and minor islands of Japan.

   b)   Types of hazards of Japan.

   c)   Tourism in Japan.

ZZZZ

[4831] -55

M.A./M.Sc. (Semester-IV)
GEOGRAPHY
Gg-445: Geography of India
(2008 Pattern)

Time : 3 Hours]

[Max. Marks : 80

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

Q1) Explain in brief 'salient features of geological structure of India'.

Q2) Describe the major climatic regions of India.

Q3) Explain the major east flowing river systems of Maharashtra.

Q4) Give the production of manganese and bauxite in India.

Q5) Give an account of cotton textile industries in India.

Q6) Explain in detail the population composition in India.

Q7) Write notes on any two

   a)   Coniferous forests.

   b)   Methods of soil conservation.

   c)   Origin & development of Telangana region.

////