M.A Part I Geography session (2018-2019)

Paper- I Module 1 GEOTECTONICS AND GEOMORPHOLOGY

Answer any one question from each module (10 Marks)

Unit-I

- 1. Discuss the systems concept in geomorphology. Critically assess the landform formations in different Geological time periods. 4+6=10
- 2. Explain why the plate tectonic theory is known as a unified theory. What do you mean by process studies and simulation? 8+2=10

Unit-II

- 3. Discuss in details the Hydraulic geometry of streams and its influence in landform evolution. Briefly discuss the formation of alluvial fans. 8+2=10
- 4. Elaborate on the causes of different channel forms and drainage patterns with labelled illustrations. Explain the drainage network ordering system. Classify terraces. 4+3+3=10

Unit-III

- 5. Discuss the erosional processes in coastal environment. What are the characteristics of periglacial landforms. Classify dunes in an Aeolian environment. 4+3+3=10
- 6. Critically evaluate the model of landform evolution as proposed by Penck. What are the features produced by rejuvenation of a river channel? 7+3=10

Unit-IV

- 7. What do you mean by a) Applied Geomorphology; b) CRZ? What are the principles of Integrated Coastal Zone Management? 4+6=10
- 8. Discuss the causes of floods in Lower Ganga basin. How can river bank erosion be arrested in this region to mitigate the impacts of floods. 6+4=10

M.A Part I Geography session (2018-2019)

Paper- I Module 2 HYDROLOGY

Answer any one question from each module (10 Marks)

Unit-I

- 1. Discuss the modes of operation of water. How do each of them affect the hydrological cycle? 6+4=10
- 2. Explain the significance of the drainage basin as a hydrological unit. Discuss the factors affecting the different hydrological processes in brief. 4+6=10

Unit-II

- 3. Discuss the modern methods of measuring precipitation and evapo-transpiration processes. How can artificial rain be created and why is it significant? 7+3=10
- 4. How is rain water consumed? Comment on the various water management techniques in tropical cities. What is integrated basin management? 3+4+3=10

Unit-III

- 5. Describe the environmental conditions and the theories behind the development of coral reefs and atolls. Briefly classify oceanic sediments. 7+3=10
- 6. Why are oceans seen as an economic resource? Briefly describe the topography of the Indian Ocean seafloor. 5+5=10

Unit-IV

- 7. State the causes and distribution for varying salinity profiles in sea water with reference to T-S diagram. Compare the properties of sea water and fresh water. 8+2=10
- 8. How are oceanic waves generated? Discuss how the currents of the Pacific Ocean impact the temperature and rainfall of the adjoining countries.

 3+7=10

M.A Part I Geography session (2018-2019)

Paper- II Module 3 CLIMATOLOGY

Answer any <u>one</u> question from each module (<u>10 Marks</u>) Unit-I

- 1. Distinguish between climatology and meteorology. Discuss the role of carbon dioxide and ozone in the atmosphere. 2+8=10
- 2. Explain the global heat balance of the earth. What do you understand by the term :heat islandø? Differentiate between global and local water budget. 6+2+2=10

Unit-II

3. Discuss the role of water vapour in the atmosphere. Differentiate between Dry Adiabatic lapse rate and Environmental Lapse rate and explain their significance.

5+5=10

4. Elaborate on the theories of raindrop formation. Briefly discuss the Neo-classical theories of monsoons in India. 6+4=10

Unit-III

- 5. Attempt a classification of air masses. Discuss the stages of temperate cyclones according to the Polar Front theory.

 4+6=10
- 6. Elaborate on the techniques of weather forecasting. What are the causes and consequences of El Nino and Southern Oscillations? What are Anticyclones?

4+4+2=10

Unit-IV

- 7. Discuss the major points of differences between the climatic Classification of Thornwaite and Trewartha. Explain the relevance of bio-climatic and agro-climatic zones in India. 5+5=10
- 8. Explain the natural and man-centric causes of global warming. Detail out the impacts of climate change. 5+5=10

M.A Part I Geography session (2018-2019)

Paper- II Module 4 SOIL AND BIO GEOGRAPHY Answer any one question from each module (10 Marks)

Unit-I

- 1. Discuss the relationship between soil-water and vegetation. Briefly explain the physical and chemical properties of soil. 3+7=10
- 2. What is soil degradation? Classify the World Soils.

Unit-II

- 3. Discuss how plants respond to extreme environmental conditions. Explain the concept of succession. 6+4=10
- 4. What are the types of biodiversity? Explain the causes and consequences of biodiversity loss. 4+6=10

Unit-III

- 5. Account for the means and barriers to animal migration. Comment on the origin of species according to the geologic history 5+5=10
- 6. Distinguish among the principles of National parks, reserve forests and wildlife sanctuaries and account for their distribution across India.

 6+4=10

Unit-IV

- 7. Critically discuss the concept of human ecology. What are the key issues of population dynamics of organisms? 4+6=10
- 8. Outline the principles of man-biosphere programme. Discuss any one terrestrial eco system in details. 4+6=10

2+8=10

M.A Part I Geography session (2018-2019) Paper - 3

MODULE 5

PHIYLOSOPHY OF GEOGRAPHY

Answer any <u>one</u> question from each module (<u>10 Marks</u>)

Unit I

- Q1. Discuss about the rise of pre scientific ideas in geography during the medieval period. outline the contributions of Humboldt and Ritter in the development of modern geographical thought. 4+6=10
- Q2. Explain the significance of Quantitative Revolution in emergence of scientific Geography. Discuss the conceptual and methodological developments in geography during the 20th century.

 6+4=10

Unit II

- Q3. Discuss the Humanistic approach in Geography. Explain the three strands of Gender geography. 5+5=10
- Q4. Examine the significance of geometric spatial structure in geography. Explain the relevance of spatial organization in geography. 6+4=10

Unit III

- Q5. Explain the dichotomies between Deterministic and Possibilistic view of Geography.

 What is landscape morphology?

 6+4=10
- Q6. Briefly discuss the Hartshorne óSchafer debate. What was the outcome of this debate? 8+2=10

Unit IV

- Q7. Describe the evolution of Critical Geography. Identify the characteristics of Postmodernism in geography. 5+5=10
- Q8. Briefly enumerate the recent trends in geography? Explain the development of human ecology in the 20th century. 6+4=10

M.A Part I Geography session (2018-2019)

Paper - 3

MODULE 6

ECONOMIC GEOGRAPHY

Answer any one question from each module (10 Marks)

Unit I

- Q1. "Resource is a dynamic concept"-----Explain. Identify the resource creating factors. 5+5=10
- Q2 What are the major issues of land and water management? Distinguish between renewable and non renewable energy resources. Identify the various techniques adopted to conserve non renewable resources. 5+2+3=10

Unit II

- Q3. What is meant by agricultural regions? Discuss the World agricultural regions after Whittlesey. 4+6=10
- Q4. What is meant by crop diversification? Why and how crop diversification is taken as a method of agricultural regionalization? 4+6=10

Unit III

- Q5. Classify industries. Give an account of the Profit Maximization Theory of August Losch. 3+7=10
- Q6. Discuss the recent industrial policies in the light of globalization. Examine the emerging industries with special reference to IT sector. 6+4=10

Unit IV

- Q7. Explain the concept of Distance. What are the different measures of connectivity? Distinguish connectivity from accessibility. 2.5+2.5+5=10
- Q8. What is meant by Intellectual Property Rights? Explain the role of TRIPS in maintaining intellectual property rights throughout the world. 4+6=10

M.A Part I Geography session (2018-2019)

Paper - 4

MODULE 7

POPULATION GEOGRAPHY

Answer any one question from each module (10 Marks)

Unit I

- Q1. Explain the factors influencing population distribution. Give the reasons for low birth rate and death rate in developed countries. 7+3=10
- Q2. What is Cohort Fertility Rate? Enumerate the special mortality indicators in population study. Explain the factors determining fertility of population in a developing country. 2+3+5=10

Unit II

- Q3 Critically examine the Malthusian theory of Population growth. Discuss Marxøs response to Malthusian theory.

 6+4=10
- Q4. Identify the family planning policies adopted by India and China .Highlight the characteristics of population policies of Sweden.

 6+4=10

Unit III

- Q5. Discuss the census categories of settlement. Explain the physical and socio economic factors responsible for the growth of rural settlements.

 4+6=10
- Q6. Identify the factors responsible for segregation of rural settlements. Discuss the measures of dispersion of rural settlements. 6+4=10

Unit IV

Q7. Explain the development of Conurbation. Distinguish between Megacity and metropolitan city. Discuss the characteristics of urban settlements.

Q8. Explain the concept of Umland. Distinguish between urban redevelopment and urban renewal? Define urban outgrowth. 4+4+2=10

M.A Part I Geography session (2018-2019)

Paper - 4

MODULE 8

SOCIAL AND CULTURAL GEOGRAPHY

Answer any one question from each module (10 Marks)

Unit I

- Q1. Define social structure. What are the elements of social structure? What are the various forms of social processes? 2+4+4=10
- Q2. What is social inequality? Identify the causes of social inequality. What are social regions? Explain the factors responsible for the formation of social regions in India. Define social security. 2+6+2=10

Unit II

- Q3. Explain the relation between Genetics and Geography. Discuss problems associated with their classification.

 6+4=10
- Q4. Distinguish between Dialects and Language. Classify world pattern of language distribution and discuss about them.

 4+6=10

Unit III

Q5. Define the components of culture. Discuss the origin and evolution of cultural hearths in the world. Identify the modern day world cultural hearths.

$$3+5+2=10$$

Q6. Distinguish between cultural segregation and cultural diversity. What are the impacts of cultural regeneration on society? 5+5=10

Unit IV

- Q7. What are the threefold divisions of society? Explain the factors responsible for cultural transformation. 4+6=10
- Q8. Distinguish between cultural area and cultural region? Explain the influence of globalization on Cultural environment.

 4+6=10

M.A Part I Geography session (2018-2019)

Paper - 5

MODULE 9(Practical)

Quantitative Techniques

Answer any <u>all</u> questions

- Q1 Distinguish between ratio and interval scale. Classify sampling techniques. (4)
- Q2. Compute and find out the correlation between climatic energy and its average environmental quality by Spearman's Rank Correlation on a countries selected 16 cities. Comment on the value of \mathbf{r} .

| City | Rank climatic energy | Rank Environmental |
|------|----------------------|--------------------|
| | | quality |
| 1 | 1 | 6 |
| 2 | 2 | 2 |
| 3 | 3 | 5 |
| 4 | 4 | 3 |
| 5 | 5 | 7 |
| 6 | 6 | 1 |
| 7 | 7 | 4 |
| 8 | 8 | 15 |
| 9 | 9 | 10 |
| 10 | 10 | 11 |
| 11 | 11 | 9 |
| 12 | 12 | 16 |
| 13 | 13 | 13 |
| 14 | 14 | 8 |
| 15 | 15 | 12 |
| 16 | 16 | 14 |

M.A Part I Geography session (2018-2019) Paper- 5

Module 10 (Practical)

Map Interpretation and Field Techniques

Answer all questions (10 Marks)

- Discuss the numbering system of SoI Topographical sheets. What is the importance of the Benchmarks and contours drawn on the maps.
 3+2=5
- Discuss the characteristics of the LISS-III Sensors. What are the stages involved in the Remote Sensing System?