



বিদ্যাসাগর বিশ্ববিদ্যালয়

VIDYASAGAR UNIVERSITY

M.A./ M.Sc. Examinations 2020
Semester IV
Subject: GEOGRAPHY
Paper: GEO – 404 (Special Paper)
(Theory)

Full Marks: 40

Time: 2hrs.

Candidates are required to give their answers in their own words as far as practicable.

Paper / Unit: 404A.1 Advanced Geomorphic Techniques

Answer any One of the following questions

1. Assess the importance of Carbon-14 dating.
2. How do you estimate discharge from rating curve?
3. How do the impacts of estuarine flood vary from that of riverine flood?
4. Discuss the procedure of estimating bed load.
5. What are the determinants of Manning's coefficient?
6. Why do you require micro-landscape analysis?

Paper /Unit: 404A.2 Applied Geomorphology

Answer any One of the following questions

1. Assess the impacts of large dams on river system.
2. Examine the role of geomorphologist in conducting EIA.
3. Elucidate the geomorphic considerations for efficient storm-water management.
4. How do you apply geomorphic knowledge in integrated river basin management?
5. 'Proper understanding of floodplain morphology is the key to successful flood management' - Explain
6. How does hard engineering structures accelerate rate of coastal erosion at Old Digha?

Paper / Unit: 404B.1 Coastal Ecology and Hazards

Answer any One of the following questions



1. Assess the effectiveness of artificial seaweeds in protecting coast from erosion.
2. Examine the physiological differences between dune-initiating and dune-building plants.
3. Assess the nature of plant-animal interaction in sand dunes.
4. Discuss the possible impacts of sea level rise on West Bengal Coast.
5. How do the impacts of storms vary between the estuarine and open coasts?
6. Why do we require monitoring coastal processes?

Paper / Unit: 404B.2: Coastal Issues and Management

Answer any One of the following questions

1. Write a Note on Coral bleaching.
2. Critically comment on the ecological importance of mangrove wetlands of the deltaic coast.
3. Assess the significance of coastal cell circulation systems in coastal management.
4. How far the application of Remote Sensing and GIS techniques can help in Environmental Zoning in coasts?
5. Assess the methods of ecosystem valuation of the coastal zones.
6. Critically examine the significance of Coastal Regulation Zones.

Paper /Unit: 404C.1: Theoretical Bases of Regional Planning

Answer any One of the following questions

1. Elaborate the processes of cumulative causation and backwash in economic development.
2. What is basic need approach and why it is important in the development of underdeveloped countries
3. Explain the regional growth perspective in the light of F. Perrouxian theory of Growth Pole
4. Critically discuss the advantages and disadvantages of Agropolitan development.
5. Critically discuss the theory on spatial structure of underdevelopment as proposed by David Slater.
6. Elaborate the "reasons of chronic flood occurrences in Ghatal and coastal region of Medinipur.

Paper / Unit: 404C.2: Planning for Urban Development

Answer any One of the following questions

1. Mention the major features of developed and under-developed economic systems.
2. Explain the role of mass transportation in urban planning.
3. Discuss the role of Swachh Bharat Mission for the improvement of urban sanitation in India.
4. Evaluate the factors determining the valuation of land in urban areas.
5. Explain the Real Estate Development model.
6. Briefly discuss the role of geoinformatics in urban utility mapping.



Paper / Unit: GEO 404D.1: ADVANCED REMOTE SENSING

Answer any One of the following questions

1. How are kinetic temperature and radiant temperature significant for thermal remote sensing?
2. What are the differences between optical remote sensing and microwave remote sensing?
3. How does a hyperspectral cube form? Mention its applications.
4. What different information can be extracted from satellite images?
5. Write a note on different methods of image resampling citing examples.
6. Briefly explain different methods of image pre-processing with suitable examples.

Paper / Unit: Geo 404D.2 Advanced GIS and applications of remote sensing

Answer any One of the following questions

1. Explain which model would you like to use for analyzing spatial pattern on availability of soil nitrogen.
2. Give an account of raster-based overlay analysis with suitable examples.
3. What is spatial data infrastructure? State its importance in geospatial analysis for planning.
4. Describe the types of errors in GPS positioning.
5. Write a note on the integration of remote sensing and GIS for the agricultural planning at the micro scale.
6. Discuss the approaches to map vegetation water stress using remote sensing technique.