M.Sc. 3rd Semester Examination, 2010

RS & GIS

PAPER—XI (RG-2105 & 2106)

Full Marks : 40

Time : 2 hours

The figures in the right-hand margin indicate marks

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

Illustrate the answers wherever necessary

OPTION – III

PAPER—RG-2105

Answer any *two* questions

1. (*a*) Explain the impacts of different coastal engineering structures. 6

   (*b*) Identify various measures for prevention of sedimentation in the estuarine ports and harbours. 4

2. (*a*) What will be the nature of the Sea water ? 3

(*b*) In general, sea surface water has lower temperature than that of environmental temperature. Explain. 2

(*c*) Swising must be along the coast i.e. parallel to the shoreline in the sea – Explain. 3

(*d*) Explain the (*i*) capillary wave and (*ii*) long period waves. 2

3. Explain the characteristics of coastal biogeography with special reference to mangroves and dune vegetation. 5 + 5

4. (*a*) Explain with diagram the effect of sea floor morphology on wave front refraction, and the subsequent concentration of waves at Headline. 8

(*b*) Explain the importance of Cliff process. 2

PAPER – RG-2106

(*Potential Application Areas of RS/GIS in Coastal Management*)

Answer any *two* questions

5. Give an account of the role of remote sensing technology in the analysis of turbidity and in study of chlorophyl content in sea water. 5 + 5

6. Explain the role of remote sensing in measuring the areas of fish ponds and their characters in coastal environment, and in identification of fishing grounds in marine environment for development and management of fishery sector. 5 + 5

7. Identify the significance of cyclone hazards and coastal erosion as environmental issues of West Bengal coast and how far the application of Remote Sensing and GIS will help to monitor and to manage the environmental problems at present. 5 + 5

8. Write short notes on any *two* of the following items : 5 + 5

(*i*) Identification of CRZ areas with Remote Sensing technology

(*ii*) Application of Remote Sensing in the measurement of SST

(*iii*) Application of Remote Sensing in the study of disaster management with special reference to tsunami incidence at the coastal zone.