

M.Sc. 3rd Semester Examination, 2013

REMOTE SENSING AND GIS

PAPER – RSG-303(Gr. A + B)

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

**Write the answers to questions of each Group
in separate books**

GROUP – A

[Marks : 20]

Answer any two questions

- 1. (a) What is sea wave ? How it is formed ? 2**

(Turn Over)

- (b) Explain "wave dominated beach-system" with reference to Environmental controls of sediments deposition and Erosion. 8
2. (a) What is the role of Vegetation in dune formation in the coastal zone. 4
- (b) Explain the significance of coast and Estuaries for Industrial location. 6
3. (a) What do you mean by the terms (i) Crest (ii) Trough (iii) Wave length and (iv) Wave height of sea waves. 6
- (b) Explain the effects of tropical cyclones in the low-lying coasts of the Bay of Bengal. 4
4. Write short notes on (any two) : 5 + 5
- (i) RIP current
- (ii) Sand spit at Rameswaram Island
- (iii) Techniques of monitoring coastal changes
- (iv) Effects of sea wall structure along the shore line.

(3)

Geoinformatics in Coastal Management

Option— 3

GROUP –B

(Potential Application Areas of RS/GIS)

[Marks : 20]

Answer any *two* questions from the following :

1. **Insight the problems of coastal tourism in West Bengal Coast and suggest some management options for their sustainable development. 4 + 6**
2. (a) **How does the surface waters are monitored in Coastal Regulatory Zone (CRZ) ?**
(b) **Explain why it is necessary for coastal management. 6 + 4**
3. **Explain how temporal change in shoreline can be mapped in an eroding coastal stretch with the help of RS and GIS. What possible precautions should be taken in comparing such multi-temporal database ? 6 + 4**

(4)

4. Write brief notes on the following items (any two) : 10

(a) Study of suspended mineral in coastal water.

(b) Study of chlorophyll content in coastal water.

(c) Significance of Hyperspectral Remote Sensing data in coastal mapping.

(d) What is the significance of CRZ in coastal management ?

(e) What is geo-spatial technology ?
