

2010

M.Sc

1st Semester Examination

GEOGRAPHY AND E.M.

PAPER—GEO-102

Full Marks : 40

Time : 2 Hours

The figures in the right-hand margin indicate full marks.

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

Write the answers of each Unit in separate books.

Unit—III

(Oceanography)

[Marks : 20]

Group—A

1. Answer any one question : 1×8
- (a) Discuss the dynamics of Waves in the shallow water environment. 8
- (b) Classify marine sediments on the basis of their mode of origin and analyse their distribution, texture and transport methods. 8

(Turn Over)

Group—B

2. Answer any *two* questions : 2×4
- (a) Explain the method of Air-Sea interactions. 4
 - (b) Discuss the origin of Oceanic ridges and trenches. 4
 - (c) What are the characteristics of coral reef morphology? 4
 - (d) Explain how human interference affects the mangroves. 4

Group—C

3. Answer any *two* questions : 2×2
- (a) What is the significance of T-S diagram?
 - (b) What are turbidites?
 - (c) What is tidal prism?
 - (d) What is beach drifting?
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Unit—IV
(Hydrology)
[Marks : 20]

Group—A

1. Answer any one question : 1×8
- (a) Discuss the processes for estimating rate of infiltration in the field for using the input in the theory of Horton (1939) for calculating basin infiltration. 8
- (b) State the steps of drawing unit hydrograph and assess the application to analyse basin hydrology.

Group—B

2. Answer any two questions : 2×4
- (a) Discuss the base flow separation techniques of hydrograph. 4
- (b) Discuss the hydrological impact of 'basin lagtime'. 4
- (c) Assess the importance of rain water harvesting in managing water scarcity. 4
- (d) Discuss the importance of preparing basin-wise hydrological budget. 4

Group—C

- 3. Answer any two questions :** **2×2**
- (a) Define 'inflection point'. **2**
- (b) What is initial obstruction? **2**
- (c) What is piezometric surface? **2**
- (d) What is base flow? **2**
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