M.A./M.Sc. 1st Semester Examination, 2012

GEOGRAPHY

(Oceanography and Hydrology)

PAPER — GEO-102 (Unit- III & IV)

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 Unit in separate books

UNIT — III

(Oceanography)

[ Marks : 20 ]
GROUP - A

1. Answer any one question:

   (a) Explain the origin and characteristics of major relief features of the ocean basins.

   (b) Discuss the ecology of coastal sand dunes and explain their successive growth stages with transformation of vegetations in the alluvium coast.

GROUP - B

2. Answer any two questions:

   (a) Explain the differences between Thermocline and Thermohaline.

   (b) Discuss the ecology of Mangroves with reference to their geologic roles.

   (c) Identify major geomorphological features of the Rocky coast's highlighting their characters.

   (d) Analyse the significance of tides in Geomorphology.
GROUP — C

3. Answer any two questions:

(a) Explain the significance of turbidity current in brief.

(b) Identify the textural characters of continental shelf sediments.

(c) What is the chemical composition of sea water?

(d) Define T-S diagram.

UNIT — IV

( Hydrology )

[ Marks : 20 ]

GROUP — A

1. Answer any one question:

(a) Assess the relevance to study hydrological systems at global as well as basin scale.

(b) Explain, with illustrations, the time-dimensions of hydrograph and discuss the hydrological importance of basin-lag-time.
GROUP—B

2. Answer any two questions:

(a) Outline the processes of estimating infiltration in field.

(b) Identify and discuss the factors of evapo transpiration.

(c) Explain the method for estimating capillary rise.

(d) Explain storage coefficient for both confined and unconfined aquifer.

GROUP—C

3. Answer any two questions:

(a) Define hydrological soil group.

(b) What is the connotation of piezometric surface?

(c) Define specific yield of an aquifer.

(d) Give an outline of the composition of "Zone of Aeration".