2008

GEOGRAPHY

COURSE—1102

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*)

1. Answer any *one* question: 8 x 1

(*a*) How do the wave properties change as the waves enter into shallow water ?

(*b*) Discuss the genesis and characteristics of the major relief features of the ocean basins in the light of plate tectonics.

2. Answer any *two* questions: 4x2

(*a*) How does the intensity of long-shore current depend on angle of wave approach along a coast line?

(*b*) Explain the nature and mechanism of mean meridional overturning in relation to temperature and salinity.

(*c*) Discuss the favourable factors for the growth of mangroves in the active delta.

(*d*) Trace the sequential development of primary sand dunes in the coastal belt in relation to vegetation transformations.

3. Answer any *two* questions: 2x2

(*a*) Classify the onshore oceanic regions mentioning the bases.

(*b*) Define amphidromic point.

(*c*) What is thermocline ?

(*d*) Distinguish between Barrier Reef and Atoll.

UNIT—IV

(*Hydrology*)

4. Answer any *one* question : 8 x 1

(*a*) Analyze the processes of discharge and recharge of ground water.

(*b*) Explain the methods of watershed management and rainwater harvesting to mitigate scarcity of water.

5. Answer any *two* questions : 4 x 2

(*a*) Discuss any one method for deriving surface run-off.

(*b*) How are the hydrological hazards explained through both morphological and stochastic systems ?

(*c*) How does the flow of ground water depend on hydraulic gradient ?

(*d*) Explain the significance of base flow separation in hydrological analysis.

6. Answer any *two* questions: 2x2

(*a*) Define unit hydrograph.

(*b*) What do you mean by specific retention of an aquifer ?

(*c*) What are major elements of consideration in computing water balance ?

(*d*) Define lag time.
