

2024
SRCMUJ
2nd Semester Examination
M.Sc.
Geography
GEO-202
Hydrology and Oceanography

Full Marks: 40

Time: 2 Hours

The figures in the margin indicate full marks. Candidates are required to give their answers in their own words as far as practicable.

Write questions as per question pattern and word limit where necessary:

1. Answer any two of the following questions: 5x2
 - a. Illustrate the function of the hydrological system at a basin scale.
 - b. Describe various empirical methods of measuring infiltration capacity.
 - c. Highlight the impacts of sea level rise on coastal ecosystem.
 - d. Discuss the different stages of coral reef formation.

2. Answer any three of the following questions: 10x3
 - a. Describe the methods used for water budgeting at the basin scale. What is basin yield? 8+2
 - b. What are the regulating factors of run-off? Describe the SCS-Curve Number method for estimating runoff volume. 4+6
 - c. What is the significance of the unit hydrograph in predicting storm run-off? Illustrate the different methods of baseflow separation for constructing a unit hydrograph. 4+6
 - d. Explain the origin and characteristics of major relief features of the ocean basin. What is thermohaline circulation? 7+3
 - e. How have anthropogenic activities accelerated environmental hazards in the coastal area of Purba Medinipur over the past decades? 10