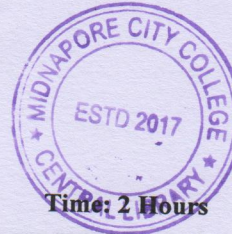


PG (NEW) CBCS
M.Sc. Semester-I Examination, 2018
GEOGRAPHY
PAPER: GEO-102
(Hydrospheric Science)



Full Marks: 40

Time: 2 Hours

Write the answer for each unit in separate sheet

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.

GEO 102.1: Oceanography

Marks: 20

GROUP-A

1. Answer any one question: 1×8=8
- a) Discuss the properties of water mass. What are the roles of saltmarshes as dynamic coastal habitat?
- b) Explain the origin of tides and highlight the significance of tidal characters in marine and coastal ecosystem.

GROUP-B

2. Answer any two questions: 2×4=8
- a) Identify the characters of major subdivisions of the marine environment.
- b) Classify the ocean sediments based on their origin.
- c) Identify the role of the 'law of the sea' in conservation of marine resources.
- d) How far the morphologic signatures of the beach profiles can highlight the dynamics of the shorelines.

GROUP-C

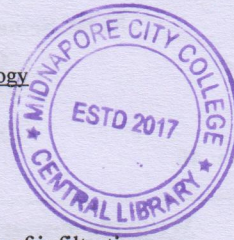
3. Answer any two questions: 2×2=4
- a) What is the uniqueness of mangrove swamps?
- b) Identify the nature of structure of the deltas.
- c) Identify the characters of cliffed coast.
- d) Differ conjunction from quadrature.

(Turn Over)

(2)

GEO 102.2: Hydrology

Marks: 20

GROUP-A

1. Answer any one question: 1×8=8
- a) Briefly discuss the methods of estimation of infiltration.
 - b) Discuss with illustration the steps involved in constructing unit hydrograph for a drainage basin.

GROUP-B

2. Answer any two questions: 2×4=8
- a) How does shape of hydrograph depend on nature of rainfall and watershed configuration?
 - b) Explain Darcy's law of ground water movement.
 - c) Discuss the principles of water budgeting at watershed level.
 - d) Discuss the methods of measurement of evapotranspiration.

GROUP-C

3. Answer any two questions: 2×2=4
- a) Define basin lag time.
 - b) Define hygroscopic moisture.
 - c) Define hydrological system.
 - d) What is piezometric surface?
