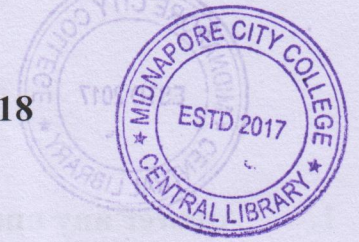


PG (NEW) CBCS
M.Sc. Semester-I Examination, 2018
GEOGRAPHY
PAPER: GEO-102
(Hydrospheric Science)

**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) Identify the major sources of sediment in the sea and mention their characteristics. 8
- b) Discuss the role of vegetation's and moistures in the evolution of coastal sand dunes with special reference to sandy alluvium coast of Odisha and West Bengal. 8

Group-B

- 2. Answer any two questions: 2×4=8**
- a) Identify the various biotic resources of the oceans. 4
- b) Briefly explain the origin of the tides with special reference to progressive wave theory. 4
- c) Elucidate glacial control theory for the development of coral reef. 4
- d) Elucidate the significance of mangrove swamps as coastal habitat. 4

Group-C

- 3. Answer any two questions: 2×2=4**
- a) Briefly explain the geomorphology of coastal dunes. 2
- b) What are the biological functions of saltmarshes? 2
- c) What is the origin of cobalt rich oceanic crust? 2
- d) Define EEZ. 2

(Turn Over)

GEO 102.2: Hydrology**Marks: 20****GROUP-A**

- 1. Answer any one question: 1×8=8**
- a) Elucidate isohyetal method of estimating rainfall volume. What is the necessity of magnitude frequency analysis of hydrological events? **5+3=8**
- b) How is system approach applied in explaining river basin hydrology? **8**

Group-B

- 2. Answer any two questions: 2×4=8**
- a) Why 'Thiessen polygon' method is more useful for precise measurement of spatial distribution of precipitation volume. **4**
- b) Bring out the hydrological significance of basin lag-time. **4**
- c) How is discharge of a river estimated from a rating curve? **4**
- d) Discuss the role of soil moisture for maintaining regional hydrological hazard's. **4**

Group-C

- 3. Answer any two questions: 2×2=4**
- a) What is 'Confined Aquifer' **2**
- b) Define return flow in a hydrological cycle. **2**
- c) Define unit-hydrograph. **2**
- d) Define aquitard. **2**
