

M.A./M.Sc. 1st Semester Examination, 2019

GEOGRAPHY

PAPER – GEO-102.1 & 102.2

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 Paper
in separate books**

GEO-102.1

(Oceanography)

GROUP—A

1. Answer any *one* question from the following : 8×1
- (a) Explain the origin of tides and highlight the significance of tidal characters in margin and coastal ecosystems.

(Turn Over)

- (b) Discuss the role of human impacts in modification of coastal processes and environment.

GROUP-B

2. Answer any *two* questions from the following : 4×2

(a) Identify the characters of major subdivisions of the marine environment.

(b) Critically discuss the composition of water masses and their properties.

(c) Identify the role of 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 shoreline ?

GROUP-C

3. Answer any *two* questions from the following : 2×2

(a) What is the origin of the coastal dune ?

(b) Identify the chemical structure of oceans.

- (c) What are the uniqueness of mangrove swamps ?
- (d) What do you understand by topset, foreset and bottom set beds ?

GEO-102.2

(Hydrology)

GROUP-A

4. Answer any *one* question : 8 × 1

- (a) Describe the steps for constructing area depth curve mentioning its use and limitations.
- (b) Elucidate the methods for run off estimation with special reference to SCS-curve number method.

GROUP-B

5. Answer any *two* questions : 4 × 2

- (a) Briefly examine the uses of rating curve.
- (b) Explain Gumbel's equation for hydrologic frequency analysis.

- (c) Briefly mention the procedure for estimating evapo-transpiration.
- (d) Discuss the hydrological relevance of basin lag time.

GROUP-C

6. Answer any *two* questions : 2 × 2

- (a) Define hygroscopic moisture.
- (b) Define piezometric level.
- (c) What is inflection point on hydrograph ?
- (d) Define specific yield.

