#### 2016

## M.A./M.Sc.

#### 1st Semester Examination

#### **GEOGRAPHY**

PAPER-GEO-102

Full Marks: 40

Time: 2 Hours

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.

Illustrate the answers wherever necessary.

# Write the answer Questions of each Unit in separate books.

### Unit-III

## (Oceanography)

## Group-A

- 1. Answer any one from the following questions: 1×8
  - (a) Discuss the role of saltmarshes and mangrove swamps as dynamic coastal habitants.

(b) Explain the characteristics of major subdivisions of the marine environment with reference to ocean circulation.

### Group-B

- 2. Answer any two from the following questions: 2x4
  - (a) Identify the human impact on the coast line.
  - (b) What is the role of EEZ in exploitation of ocean resources?
  - (c) Explain the geomorphology of coastal dunes.
  - (d) Identify the sources of sediment types in the sea.

## Group-C

- 3. Answer any two from the following questions: 2x2
  - (a) What are the properties of water masses?
  - (b) Define tidal inlets.
  - (c) What is the origin of tide?
  - (d) Identify the characters of cliffed coasts.

#### Unit-IV

## (Hydrology)

### Group-A

- **1.** Answer any one from the following question:  $1 \times 8$ 
  - (a) Discuss with illustration the steps involved in constructing unit hygrograph for a drainage basin.
    8
  - (b) Discuss with illustration, the methods of estimating evapotranspiration in different landuse / landcover conditions. What is basin-lag time?

    6+2

# Group-B

- 2. Answer any two from the following questions: 2×4
  - (a) Explain hydrological systems with examples.
  - (b) Explain Darey's law of groundwater movement.
  - (c) How does confined aquifer differ from unconfined aquifer?
  - (d) How do you separate base flow from total discharge?

### Group-C

- 3. Answer any two from the following questions: 2x2
  - (a) Define residence time of water in a storage pool.
  - (b) What do you mean by infection point on rising limb of a hydrograph?
  - (c) How does detention storage differ from retention storage?
  - (d) Define hygroscopic moisture.