#### 2016

## M.A./M.Sc.

#### 1st Semester Examination

#### **GEOGRAPHY**

PAPER-GEO-101

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-I

# (Geotectonics)

## Group-A

- 1. Answer any one from the following questions: 1×8
  - (a) Explain the mechanism of plate dynamics and discuss the application of plate tectonic theory in explaining volcanism.

(b) What is palacomagnetism and to what extent the paleomagnetic polar wandering curves helped reconstruction of the plate tectonic motions?

#### Group-B

- 2. Answer any two from the following questions: 2x4
  - (a) Identity the evidences in support of Neotectonics.
  - (b) Explain the concept of geomagnetic polarity reversal.
  - (c) What are the principles of relative and absolute dating?
  - (d) Explain in brief the origin of universe.

### Group-C

- 3. Answer any two from the following questions: 2x2
  - (a) Define orogenesis.
  - (b) What is stellar evolution?
  - (c) What is flysh sediment?
  - (d) Define Benioff zone'.

#### Unit-II

## (Geomorphology)

## Group-A

- 1. Answer any one from the following question: 1×8
  - (a) Elucidate the landforms developed by weathering.
  - (b) Explain, with illustrations, the mechanism of drainage network development.

### Group-B

2. Answer any two questions:

- $2\times4$
- (a) Explain the mechanism of entrainment by a natural river.
- (b) How does geomorphological stress operate to initiate fracturing and mass wasting?
- (c) Explain the processes operating on different slope units.
- (d) Discuss the role of alluvial fan as system-valve between mountain and plain land fluvial system.

# Group-C

- 3. Answer any two questions from the following: 2x2
  - (a) Define cation-exchange capacity.
  - (b) How does ionic-potential lead to leaching and chemical weathering?
  - (c) Define Grade.
  - (d) How does dynamic equilibrium differ from dynamic metastable equilibrium?