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2019

B.Sc.

## 1st Semester Examination

# GEOLOGY (Honours)

Paper - C 1-T

(Earth System Science)

Full Marks: 40

Time: 2 Hours

The figures in the margin indicate full marks. Candidates are required to give their answers in their own words as far as practicable.

#### Group - A

Answer any five questions of the following:

 $2 \times 5 = 10$ 

- 1. What is pillow lava?
- 2. Write the compositional difference between Terrestrial and Jovian planets.
- 3. What is Island arc?
- 4. Define the term 'soil creep'.

[ Turn Over ]

- 5. What is unconformity?
- 6. What is chemical weathering? Give examples.
- 7. What is volcanic dome?
- 8. What is the difference between chondrite and achondrite?

### Group - B

Answer any four questions of the following:

 $4 \times 5 = 20$ 

- Write a short note on different types of plate boundaries.
- 10. (a) Write the anumptions of 'Airy and Pratt' Models.
  - (b) Give an account on Isostatic anomaly. 2+3
- 11. (a) What is point bar?
  - (b) Give a brief account on depositional features of acolian (wind driven) environment. 1+4
- 12. (a) What is Seismogram?
  - (b) Classify volcano according to their morphology.

1+4

- 13. (a) Write goldsmidths classification of element.
  - (b) What is p-process in nucleosyuthesis process of element? 3+2
- 14. (a) What is the difference between plutonism and neptunism?
  - (b) Write the principles of Nicholas steno in stratigraphy. 2+3

#### Group - C

Answer any one question of the following:

1×10=10

- 15. (a) Write a short note on P-wave and S-wave shadow zones.
  - (b) Briefly discuss about the geochemical composition of Earth's crust. 5+5
- 16. (a) Write the significance of radiometric age dating of rock.
  - (b) What is Ekman spiral?
  - (c) Write geological time scale in a table form.

3+2+5