

2018

CBCS

1st Semester

GEOLOGY

PAPER—C1T

(Honours)

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.*

**Earth System Science**

Answer all questions

**Group—A**

1. Answer any *five* questions : 5×2
- (a) What is low velocity zone ?
- (b) What is the difference between 'Pahoehoe' lava and 'aa' lava ?

(Turn Over)

- (c) Why love (L) wave is more destructive than 'S' wave ?
- (d) Why jovian planets are larger than terrestrial planets ?
- (e) What is subduction zone ?
- (f) What is the difference between geochronological unit and chronostratigraphic unit ?
- (g) What is exfoliation ?
- (h) State the law of Superposition.

**Group—B**

2. Answer any *four* questions : 4×5

(a) (i) Write a short note on free-air anomaly.

(ii) Define the term Bouguer correction of gravity.

3+2

(b) (i) Classify volcano according to their nature of ejecting materials.

(ii) What is Richter Scale ? 4+1

(c) (i) What is meteorite ?

(ii) Write a short note on different types of meteorite.

1+4

(d) (i) Define the term ventifact.

(ii) Give a brief account on erosional features of glacier.

1+4

(e) (i) Write a short note on geochemical composition of Earth's mantle.

(ii) Why continental crust is lighter than oceanic crust ?

4+1

(f) Write the evidences of continental drift theory. 5

### **Group—C**

3. Answer any *one* question :

1×10

(a) (i) Write the Oddo-Harkins' Rule.

(ii) Write a short note on nucleosynthesis process of element.

(iii) Write the controlling factors of fossilization.

2+5+3

(b) (i) Write the effects of coriolis force on oceanic current system.

(ii) Write briefly about different types of plate boundaries in plate-tectonic theory.

(iii) Write the significance of absolute age dating of rock.

3+4+3