

2015

(1st Semester)

GEOLOGY

FIRST PAPER

(General and Structural Geology)

Full Marks : 55

Time : 2½ hours

(PART : B—DESCRIPTIVE)

(Marks : 35)

*The figures in the margin indicate full marks
for the questions*

Answer **five** questions, selecting **one**
from each Unit

UNIT—I

1. Write notes on any *two* (enhance your answer with neat sketches) : 3½×2=7
 - (a) Planetesimal hypothesis
 - (b) Tidal hypothesis
 - (c) Nebular hypothesis by Kant

G16/28a

(Turn Over)

2. Describe the following : $3\frac{1}{2}+3\frac{1}{2}=7$

- (a) Revolution of the earth
- (b) Magnetic field of the earth

UNIT—II

3. Write short notes on the following : $3\frac{1}{2}+3\frac{1}{2}=7$

- (a) Origin of hydrosphere
- (b) Composition of the earth's crust

4. Write a descriptive note on different processes involved in mountain formation. 7

UNIT—III

5. Write notes on any *two* of the following : $3\frac{1}{2}\times 2=7$

- (a) Geological timescale
- (b) Differential expansion and hydration
- (c) World distribution of earthquake

6. What is volcano? Add a note on the types of volcano. $2+5=7$

UNIT—IV

7. What is topography? Write the effects of topography on outcrop. 2+5=7
8. Sketch and label Brunton compass. How is dip amount measured using Brunton compass? 2+2+3=7

UNIT—V

9. Describe the geometric classification of faults with suitable examples. 7
10. Write notes on any *two* of the following : 3½×2=7
- (a) Plunging fold
 - (b) Parts of fold
 - (c) Chevron fold

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(PART : A—OBJECTIVE)

(Marks : 20)

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SECTION—A

(Marks : 5)

1. Choose the correct answer and put its number within the brackets provided : 1×5=5

(a) The temperature at the core mantle boundary is roughly

(i) 5600 °C

(ii) 6700 °C

(iii) 7200 °C

(iv) 4800 °C

[]

(b) The hottest planet in the solar system is

(i) Mercury

(ii) Venus

(iii) Earth

(iv) Mars

[]

(c) The most destructive wave among the seismic waves is

(i) primary wave

(ii) secondary wave

(iii) Love wave

(iv) Rayleigh wave

[]

(d) The difference between the highest and the lowest elevation points at a particular area is

(i) contour

(ii) relief

(iii) RF

(iv) topography

[]

(e) The line of maximum curvature in a fold is called

(i) hinge

(ii) crest

(iii) axis

(iv) trough

[]

SECTION—B

(Marks : 15)

2. Write short notes on the following in not more than
3 or 4 sentences each : 3×5=15

(a) Size of the earth

(b) Biology's big bang

lowest elevation points at a particular area is

(i) contour

(ii) relief

(iii) RF

(iv) topographic

(c) The line of maximum curvature in a fold is called

(i) hinge

(ii) crest

(iii) axis

(iv) trough

(c) Abrasion and deflation

2. Write short notes on the following in not more than 3 or 4 sentences each.
- (a) Size of the earth

(d) Importance of dip and strike

GEOLOGY

FIRST PAPER

(General and Structural Geology)

(Time: 3 hours)

(Marks: 70)

The figures in the margin indicate full marks for the questions.

SECTION - A

(Marks: 5)

1. Choose the correct answer and put its number within the brackets provided.

(a) The temperature at the core-mantle boundary is

(i) 5000 °C

(ii) 6700 °C

(iii) 7300 °C

(iv) 4850 °C

(e) Recumbent fold

(i) Mercury

(ii) Venus

(iii) Earth

(iv) Mars

(f) The most destructive wave among the seismic waves is

(i) primary wave

(ii) secondary wave

(iii) Love wave

(iv) Rayleigh wave
