I/GEOL (i)

2016

(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* of the following : 3½×2=7

(a) Nebular hypothesis

(b) Tidal hypothesis

(c) Big bang theory

2. Write notes on any *two* of the following : 3½×2=7

(a) Internal constitution of the earth

(b) Revolutional parameters of the earth

(c) Scope of geology

UNIT—II

3. Write a descriptive note on the origin of continents. 7

4. Write short notes on the following : 3½+3½=7

(a) Age of the earth

(b) Composition of earth in comparison to other bodies in the solar system

UNIT—III

5. What is an earthquake? Add a note on the causes and effects of an earthquake. 2+2½+2½=7

6. Write notes on any *two* of the following : 3½×2=7

(a) Distribution of volcanic belt

(b) Agents of weathering

(c) K-T extinction

UNIT—IV

7. Draw a neat and labeled diagram of Brunton compass. Add a note on the uses of Brunton compass for determining dip and strike. 2+2½+2½=7

8. Write notes on the following : 3½+3½=7

(a) Effects of topography on outcrop

(b) Dip and strike of a bed

UNIT—V

9. Describe the geometric classification of folds with a neat diagram. 7

10. Write short notes on any *two* of the following : 3½×2=7

(a) Heave and throw

(b) Inlier

(c) Overlap

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Subject Code : I/GEOL (i)

Booklet No. A

Date Stamp .....

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To be filled in by the Candidate

DEGREE 1st Semester
(Arts / Science / Commerce / .....) Exam., **2016**

Subject .....
Paper .....

To be filled in by the Candidate

DEGREE 1st Semester
(Arts / Science / Commerce / .....) Exam., **2016**

Roll No. .....
Regn. No. .....

Subject .....
Paper .....

Descriptive Type
Booklet No. B .....

INSTRUCTIONS TO CANDIDATES

1. **The Booklet No. of this script should be quoted in the answer script meant for descriptive type questions and vice versa.**
2. **This paper should be ANSWERED FIRST and submitted within** *45 minutes* **of the commencement of the Examination.**
3. **While answering the questions of this booklet, any cutting, erasing, over-writing or furnishing more than one answer is prohibited. Any rough work, if required, should be done only on the main Answer Book. Instructions given in each question should be followed for answering that question only.**

Signature of Scrutiniser(s) *Signature of Examiner(s)* *Signature of Invigilator(s)*

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(1st Semester)

GEOLOGY

FIRST PAPER

(General and Structural Geology)

(PART : A—OBJECTIVE)

(*Marks* : 20)

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 : 1×5=5

(a) The age of the earth is

(i) 3·5 billion years

(ii) 4·3 billion years

(iii) 4·6 billion years

(iv) 3·8 billion years [ ]

(b) The discontinuity which separate the crust and the mantle is known as

(i) Conrad discontinuity

(ii) Mohorovicic discontinuity

(iii) Gutenberg discontinuity

(iv) Weichert discontinuity [ ]

(c) The process of scaly peeling off of the rock is known as

(i) thermal weathering

(ii) hydration

(iii) exfoliation

(iv) frost wedging [ ]

(d) The direction of the line along which an inclined bed intersects a horizontal plane is known as

(i) true dip

(ii) apparent dip

(iii) strike of the bed

(iv) plunging fold [ ]

(e) An overturn fold in which the axial plane is horizontal or more nearly is known as

(i) symmetrical fold

(ii) asymmetrical fold

(iii) chevron fold

(iv) recumbent fold [ ]

SECTION—B

(*Marks* : 15)

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

(a) Convection in the earth's core

(b) Radioactivity

(c) Geological time scale

(d) Instruments used in the field study

(e) Footwall and hanging wall

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