

4/EH-26 (iv) (Syllabus-2015)

2 0 1 9

(April)

GEOLOGY

(Elective/Honours)

(Stratigraphy and Palaeontology)

(GELH-401)

Marks : 56

Time : 3 hours

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

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

GROUP—A

(Stratigraphy)

UNIT—I

1. (a) Define stratigraphy. Illustrate the different principles used in stratigraphical studies of rocks. 1+6=7
- (b) Explain time units and chronostratigraphic units. Mention the relationship between time units and chronostratigraphic units in tabular form with examples. 2+2+3=7

(2)

2. (a) Give stratigraphical description of the Precambrian rocks of Karnataka. 8
- (b) Write short notes on any *two* of the following : $3 \times 2 = 6$
- (i) Semri group
 - (ii) Iron ore group
 - (iii) Banded gneissic complex

UNIT—II

3. (a) Describe the stratigraphical description of the Triassic rocks of Spiti valley. 8
- (b) Write stratigraphical notes on any *two* of the following : $3 \times 2 = 6$
- (i) Uttatur formation
 - (ii) Damuda group
 - (iii) Patcham formation
4. Write stratigraphical notes on any *two* of the following : $7 \times 2 = 14$
- (a) Deccan trap
 - (b) Mahadek formation
 - (c) Barail and Surma groups
 - (d) Siwalik group

(3)

GROUP—B

(Palaeontology)

UNIT—III

5. (a) Define fossil. Explain the types of fossilization. Mention the uses of fossils. $1 + 8 + 1 = 10$
- (b) Write short notes on any *two* of the following : $2 \times 2 = 4$
- (i) Subdivisions of palaeontology
 - (ii) Index fossils
 - (iii) Types of microfossils
6. Describe the evolutionary trends observed in Equidae with suitable sketches. $12 + 2 = 14$

UNIT—IV

7. (a) Give morphological description of Echinoidea with suitable sketches. $7 + 1 = 8$
- (b) Write short notes on any *two* of the following : $3 \times 2 = 6$
- (i) Articulata and Inarticulata brachiopods
 - (ii) Dentition in Pelecypoda
 - (iii) Suture lines in Cephalopoda

8. (a) Write explanatory notes on any *two* of the following with diagrams : $5 \times 2 = 10$

- (i) Morphology of Trilobita
- (ii) Morphology of Graptoloidea
- (iii) Coiling and forms of Gastropoda

- (b) Write notes on any *two* of the following :

$2 \times 2 = 4$

- (i) Vertebraria
- (ii) Glossopteris
- (iii) Ptilophyllum

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