

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

2 0 1 8

(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 correlation. Mention the factors used in litho-stratigraphic and bio-stratigraphic correlation. 1+2=3
- (b) Write briefly on either litho-stratigraphic or bio-stratigraphic correlation. 4
- (c) Discuss on the principles of radiometric dating of rock. 7

(2)

2. (a) Give stratigraphical description of the pre-Cambrian rocks of the Cuddapah Supergroup. 10

- (b) Write short notes on any *two* of the following : $2 \times 2 = 4$

- (i) Closepet Granite
- (ii) Bhandar Group
- (iii) Myllem Granite

UNIT—II

3. (a) Describe the stratigraphical succession of the Jurassic rocks of Kutch region. 7

- (b) Write stratigraphical notes on any *two* of the following : $3 \frac{1}{2} \times 2 = 7$

- (i) Agglomeratic Slate Series and Panjal Traps
- (ii) Upper Triassic succession of Spiti valley
- (iii) Talchir Group
- (iv) Bagh Beds

4. (a) Describe the general stratigraphy of Tertiary rocks of North-East India. 10

- (b) Discuss the stratigraphic succession of the Siwalik Group. 4

(3)

GROUP—B

(Palaeontology)

UNIT—III

5. (a) Define micro-palaeontology. Explain the different types of microfossils with examples. $2+5=7$
- (b) Describe the Siwalik mammals of India and discuss the causes of their extinction. $5+2=7$

6. Describe the evolutionary trends observed in trilobites with neat sketches. $12+2=14$

UNIT—IV

7. (a) Illustrate the morphological features of foraminifera with respect to (i) composition, (ii) types of chambers, (iii) forms and (iv) aperture with suitable sketches. 10
- (b) Write short notes on any *two* of the following : $2 \times 2 = 4$
- (i) Vertebraria
 - (ii) Articulata and Inarticulata brachiopods
 - (iii) Geological distribution of echinoidea

(4)

8. Write palaeontological notes on any *two* of the following : 7×2=14

(a) Morphology of graptoloidea 7

(b) Forms and suture lines in cephalopods with neat sketches 2+5=7

(c) Gondwana flora 7

★ ★ ★