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( July )

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

( **General Stratigraphy and Precambrian  
Stratigraphy of India** )

1. (a) Describe biostratigraphic units. How do  
biostratigraphic units differ from  
lithostratigraphic units? 5+2=7

- (b) What do you mean by stratigraphic  
correlation? Write about the techniques  
of lithologic and palaeontologic  
correlations. 1+3+3=7

2. (a) Give the stratigraphical description of  
Precambrian rocks of Meghalaya. 8

- (b) Write short notes on any *two* of the  
following : 3×2=6

(i) Cuddapah supergroup

(ii) Dharwar supergroup

(iii) Singhbhum supergroup

UNIT—II

( **Indian Stratigraphy : Phanerozoic Eon** )

3. (a) Give a stratigraphic account of  
Siwalik's emphasizing its lithology and  
distribution. 8

- (b) Write stratigraphical notes on any *two*  
of the following : 3×2=6

(i) Umia formation

(ii) Talchir group

(iii) Intertrappean beds

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4. Write stratigraphical notes on any *two* of the following :  $7 \times 2 = 14$

- (a) Jurassic of Kutch
- (b) Classification of Gondwana
- (c) Jaintia Group
- (d) Cretaceous of Narmada Valley

GROUP—B

( **Palaeontology** )

UNIT—III

( **General Palaeontology** )

5. (a) What are body fossils and trace fossils? Describe the petrification and recrystallization types of fossil preservation.  $2 + 6 = 8$
- (b) Write short notes on the following :  $3 \times 2 = 6$
- (i) Uses of fossils
  - (ii) Types of microfossils
6. Describe the evolutionary trends observed in trilobites with suitable sketches.  $12 + 2 = 14$

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UNIT—IV

( **Invertebrate Fossils and Plant Fossils** )

7. (a) Describe the morphological features and geological distribution of brachiopods with sketches.  $4 + 2 + 2 = 8$
- (b) Write short notes on any *two* of the following :  $3 \times 2 = 6$
- (i) Regularia and irregularia  
*Echinoidea*
  - (ii) Nautiloid type suture line
  - (iii) Dentition in Lamellibranchia
8. (a) Write explanatory notes on any *two* of the following with diagrams :  $5 \times 2 = 10$
- (i) Morphology of Lamellibranchia
  - (ii) Morphology of Cephalopoda
  - (iii) Morphology of Foraminifera
- (b) Write the morphological characteristics of any *two* of the following :  $2 \times 2 = 4$
- (i) Glossopteris
  - (ii) Ptilophyllum
  - (iii) Gangamopteris

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