

3 (Sem-4/CBCS) GLG HG/RC

2024

GEOLOGY

(Honours Generic/Regular)

Paper : GLG-HG-4016/GLG-RC-4016

(Stratigraphy and Paleontology)

Full Marks : 60

Time : Three hours

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

1. Choose the correct option : 1×7=7
- (a) Which of the following is not a chronostratigraphic unit ?
- (i) System
 - (ii) Series
 - (iii) Epoch
 - (iv) Stage
- (b) In the Cuddapah Basin the effects of metamorphism is seen to increase from –
- (i) North to South
 - (ii) South to North

Contd.

- (iii) West to East
- (iv) East to West
- (c) The most common rocks of the Vindhyan Supergroup are –
 - (i) Sandstone, shale and limestone
 - (ii) Sandstone, Granite and Gabbro
 - (iii) Limestone, Granite and Schist
 - (iv) Limestone, Conglomerate and Gneiss
- (d) Gastropods exhibit –
 - (i) Bilateral symmetry
 - (ii) Radial symmetry
 - (iii) Biradial symmetry
 - (iv) Asymmetry
- (e) In Trilobites the segment of the thorax and the pygidium can be differentiated by –
 - (i) their shape and size
 - (ii) their movable and immovable character
 - (iii) the nature of their furrows
 - (iv) the total number of segments
- (f) The progenitor of horse was –
 - (i) Eohippus
 - (ii) Miohippus

- (iii) Merychippus
- (iv) Pliohippus
- (g) The fauna which comprises exclusively of active swimmers is described as –
 - (i) Plankton
 - (ii) Nekton
 - (iii) Benthic
 - (iv) Pelagic
- 2. Write briefly on the following : $2 \times 4 = 8$
 - (a) Barail group
 - (b) Taxodont dentition
 - (c) Ammonitic suture
 - (d) Sinistral coiling in Gastropod
- 3. Write detailed notes on : **(any three)** $5 \times 3 = 15$
 - (a) Bio-stratigraphic unit
 - (b) Dentition pattern in Bivalves
 - (c) Stratigraphy of Jurassic of Kutch
 - (d) Importance of fossil
 - (e) Cenozoic stratigraphy of Assam

4. Answer the following questions :

- (a) With neat sketch describe the morphological characteristics of phylum Brachiopod. Add a note on their geological distribution. 8+2=10

Or

Describe the evolutionary history of Horse. Elaborate how horses occupied the whole world throughout their evolution. 7+3=10

- (b) Discuss the stratigraphy, lithology and tectonics of Vindhyan Supergroup. 10

Or

Define chronostratigraphy. Discuss different types of chronostratigraphic units. Add a note on Geological time scale. 2+5+3=10

- (c) Write an elaborate note on stratigraphy of Dharwar Province. 10

Or

Define stratigraphy. Write a note on principles of stratigraphy. 2+8=10