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Or

Discuss about modes and theories of organic.

2. Throw light on morphology, classification, evolutionary trends and Geologic distribution of Gastropoda.

Or

Describe morphology, classification, evolutionary trends and geologic distribution of Lamellibranchia.

3. Describe in detail about evolutionary history of horse.

Or

Discuss about morphology, classification and evolutionary trends of Echinoids.

4. Describe fossil flora of lower Gondwana group with the help of diagram.

Or

Discuss about importance and types of microfossils.

5. Throw light in detail on techniques of micropalaeontology.

Or

Comment on use of Microfossils in stratigraphic correlation and age determination.

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G-1/124/21

Roll No.....

I Semester Examination, April-2021

M.Sc.

GEOLOGY

Paper IV

(Palaeontology)

Time : 3 Hours]

[Maximum Marks : 80

Note : All questions are compulsory. Question Paper comprises of 3 sections. **Section A** is objective type/Multiple Choice questions with no internal choice. **Section B** is short answer type with internal choice. **Section C** is long answer type with internal choice.

SECTION 'A'

(Objective Type Questions)

Choose the correct answer :

1 × 10 = 10

- Which of the following modes of preservation of fossils is rare ?
 - Preservation of entire organism
 - Preservation hard parts
 - Preservation of original form
 - alteration of hard parts
- The most favourable environment for the preservation of fossil is :
 - Terrestrial
 - Lacustrine
 - Fluvial
 - Marine
- The first vertebrates appeared during :
 - Cambrian
 - Ordovician
 - Silurian
 - Devonian

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4. Graptolites exhibit :

- (a) Radial symmetry (b) Bilateral symmetry
(c) Biradial symmetry (d) Radio Bilateral symmetry

5. In echinoides, the mouth is surrounded by a membrane called :

- (a) Peristome (b) Periproct
(c) Madreporite (d) Aristotles's Lantern

6. The Trilobite fauna are restricted to :

- (a) Lower palaeozoic (b) Upper Palaeozoic
(c) Mesozoic (d) Cenozoic

7. Which of the following belongs to Brachiopod ?

- (a) Pecten (b) Spirifer
(c) Physa (d) Glossopteris

8. "Pallial sinus" is related with :

- (a) Plant fossils (b) Vertebrate fossils
(c) Lamellibranchia (d) Foraminifers

9. Index fossil is :

- (a) Physa (b) Turitella
(c) Pecten (d) Terebratulilla

10. Which of the following shows sinistral type of coiling ?

- (a) Murex (b) Conus
(c) Physa (d) Bellorophon

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SECTION 'B'

5 × 4 = 20

(Short Answer Type Questions)

Note : Answer the following questions in 250 words.

1. Comment on preservation of fossils.

Or

Explain about animals mass extinction and their causes.

2. Differentiate between lamellibranchia and Brachiopoda.

Or

Explain evolutionary trends of Trilobita.

3. Comment on elementary concepts of origin of vertebrates and evolution.

Or

Comment in brief on "Graptolites".

4. Write notes on Siwalik Mammalian fauna.

Or

Differentiate between Glossopteris and Gangamopteris.

5. Discuss about use of microfossils in Palaeoenvironmental studies.

Or

Throw light on use of microfossils in hydrocarbon exploration.

SECTION 'C'

10 × 5 = 50

(Long Answer Type Questions)

Note : Answer the following questions in 500 words.

1. Describe in detail about morphology, classification and evolutionary trends of Brachiopoda.