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

2022

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 : ***(any seven)***

$1 \times 7 = 7$

(a) 'Present is the key to the past' is related to

(i) principle of uniformitarianism

(ii) principle of stratigraphic superposition

(iii) principle of faunal succession

(iv) principle of horizontality

Contd.

(b) Fundamental unit of lithostratigraphy is

- (i) group
- (ii) formation
- (iii) member
- (iv) bed

(c) Stratigraphy is also known as

- (i) modern geology
- (ii) dynamic geology
- (iii) historical geology
- (iv) All of the above

(d) The type locality of Mahadek Formation lies in

- (i) Rajasthan
- (ii) Meghalaya
- (iii) Assam
- (iv) Gujarat

(e) The youngest formation of Cuddapah Supergroup is

- (i) Kurnool formation
- (ii) Cheyyar formation
- (iii) Nallamalai formation
- (iv) Papaghni formation

(f) The tertiary rocks are exposed in

- (i) Himalayas
- (ii) Western Rajasthan
- (iii) West Coast of Kerala
- (iv) All of the above

(g) The study of trace fossil is known as

- (i) synecology
- (ii) paleoecology
- (iii) ichnology
- (iv) palynology

(h) The most favourable environment for the preservation of fossils is

- (i) marine
- (ii) lacustrine
- (iii) fluvial
- (iv) terrestrial

(i) The Lamellibranchia belongs to phylum

- (i) Brachiopoda
- (ii) Mollusca
- (iii) Hemichordata
- (iv) Echinodermata

(j) The mouth in Echinoids is surrounded by a ring of calcareous plates known as

- (i) periproct
- (ii) peristome
- (iii) apical disc
- (iv) ambitus

2. Write short notes on : **(any four)** $2 \times 4 = 8$

- (a) Group in lithostratigraphy
- (b) Function of lophophore in Brachiopods
- (c) Coiling pattern in Gastropod
- (d) Paleoenvironmental importance of fossil
- (e) Unconformity bound units
- (f) Lower Gondwana flora
- (g) Lameta Bed
- (h) Surma Group

3. Write detailed notes on : **(any three)** $5 \times 3 = 15$

- (a) Superposition of strata
- (b) Dharwar Supergroup
- (c) Types of fossils
- (d) Hutton and uniformitarianism
- (e) Stratigraphy of Deccan Trap
- (f) External morphology of trilobites
- (g) Dentition pattern in bi-valve
- (h) Smith and applied stratigraphy

- (g) Give the stratigraphy succession of Assam-Arakan Basin. Elaborate its lithology and tectonic history.

3+7=10

- (h) Give a detailed account on stratigraphic classification.
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