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GEOLOGY

( Major )

Paper : 5.1

( Principles of Stratigraphy and  
Historical Geology )

*Full Marks : 60*

*Time : 3 hours*

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

1. Choose the correct answer from the following : 1×7=7

(a) Cenozoic is the era of

(i) trilobites

(ii) reptiles

(iii) mammals

(iv) corals

- (b) Abraham Gottlob Werner and his followers were known as
- (i) Uniformitarianists
  - (ii) Neptunists
  - (iii) Pessimists
  - (iv) Oceanographers
- (c) Which one of the following is a lithostratigraphic unit?
- (i) Sequence
  - (ii) Formation
  - (iii) Zone
  - (iv) System
- (d) The Deccan Traps are mainly
- (i) acid volcanic rocks
  - (ii) alkaline rocks
  - (iii) continental flood basalts
  - (iv) rhyolites
- (e) In which of the following periods do we live?
- (i) Quaternary
  - (ii) Tertiary
  - (iii) Cretaceous
  - (iv) Triassic

(f) Jurassic is a period of which of the following eras?

(i) Precambrian

(ii) Paleozoic

(iii) Mesozoic

(iv) Cenozoic

(g) Abyssal zone is a part of a

(i) non-marine environment

(ii) mixed environment

(iii) desert environment

(iv) marine environment

2. Answer the following questions briefly :  $2 \times 4 = 8$

(a) What are different geochronological methods?

(b) What is seismic stratigraphy? State its importance.

(c) What do you understand by Lyell's concept?

(d) What is the sedimentation clock?

3. Write briefly about the following (any *three*) :

5×3=15

- (a) Palaeogeographic reconstruction
- (b) Sedimentary facies
- (c) Lithostratigraphic units
- (d) Life during Mesozoic
- (e) Hutton and uniformitarianism

4. Write elaborate answers of the following questions :

- (a) What are the different methods of stratigraphic correlation? Describe these methods briefly. 10

Or

Write a note on the physical events and biological changes through geological ages. 10

- (b) What is geochronology? Write about the geological timescale. Differentiate between absolute and relative time in geology. 10

Or

Define sedimentary environment. Write a note on the classification of sedimentary environment. 10

- (c) Write about classical geological reconnaissance. 10

*Or*

Write about the importance of the Cretaceous-Tertiary boundary in earth's geological history. Also write briefly about the type area of Cretaceous rocks in India. 10

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