

**2 0 1 4**

( 4th Semester )

**GEOLOGY**

**FOURTH PAPER**

( **Paleontology and Stratigraphy—I** )

( PART : A—OBJECTIVE )

( Marks : 20 )

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

**SECTION—A**

( Marks : 5 )

1. Choose the correct answer and put its number in the brackets provided : 1×5=5

(a) Palynology is a branch of palaeontology which deals with the study of

(i) trace fossils

(ii) spores and pollen grains

(iii) invertebrate fossils

(iv) human fossils

[       ]

(b) The margin of the aperture in gastropod's shell is known as

(i) columella

(ii) peristome

(iii) umbilicus

(iv) suture

[       ]

(c) The smallest unit in stratigraphic classification is

(i) formation

(ii) member

(iii) group

(iv) horizon

[       ]

(d) The transition zone of otoceras and ophiceras bed of spiti valley is considered to be a boundary of

(i) PT

(ii) KT

(iii) pleistocene

(iv) None of the above [ ]

(e) India's largest sandstone type uranium deposits are found to be associated with

(i) Tipam sandstone formation

(ii) Manchhar formation

(iii) Pinjore formation

(iv) Mahadek sandstone formation [ ]

( 4 )

SECTION—B

( Marks : 15 )

2. Define the following in the space provided : 3×5=15

(a) Bathymetric distribution

(b) Strophic shell and non-strophic shell in Brachiopods

(c) Index fossils

(d) Tertiary formations of Indian stratigraphy

(e) Sakoli triangle

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# IV/GEOL (iv)

2014

( 4th Semester )

GEOLOGY

FOURTH PAPER

( Paleontology and Stratigraphy—I )

Full Marks : 55

Time : 2 hours

( PART : B—DESCRIPTIVE )

( Marks : 35 )

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

Answer **five** questions, taking **one**  
from each Unit

UNIT—I

1. Write short notes on the following :  $3\frac{1}{2}+3\frac{1}{2}=7$ 
  - (a) Types of fossils
  - (b) Origin of life
2. Write descriptive notes on the following :  $3\frac{1}{2}+3\frac{1}{2}=7$ 
  - (a) Incompleteness of fossil record
  - (b) Paleontology in relationship with other  
subdiscipline of geology.

( 2 )

UNIT—II

3. Illustrate and write the important morphological features of Echinoidea.  $3+4=7$
4. Write short notes on the following :  $3\frac{1}{2}+3\frac{1}{2}=7$
- (a) Six kingdoms of organisms
- (b) Convolute coiling in cephalopods

UNIT—III

5. Describe the principles of stratigraphy. 7
6. Write descriptive notes on any *two* of the following :  $3\frac{1}{2}+3\frac{1}{2}=7$
- (a) Stratigraphic correlation
- (b) Geological time scale
- (c) Biostratigraphic correlation

UNIT—IV

7. Describe in detail about the boundary problems in Indian stratigraphy. 7
8. Write about different tectonic divisions of India with suitable sketches. 7

( 3 )

UNIT—V

9. Describe in detail about the geology of Dharwar supergroup. 7
10. Write descriptive notes on the following :  
 $3\frac{1}{2}+3\frac{1}{2}=7$
- (a) Pre-Cambrian rocks of North-East India
- (b) Lithostratigraphic succession of Vindhyan supergroup

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