

Total No. of Printed Pages—4

2 SEM TDC GEO M 1

2020

GEOLOGY

(Major)

Course : 201

**(Principles of Stratigraphy and
Indian Stratigraphy)**

Full Marks : 80
Pass Marks : 32/24

Time : 3 hours

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

UNIT—2.1

(Principles of Stratigraphy)

(Marks : 30)

1. What are the basic principles of stratigraphy? Describe with examples biostratigraphy and magnetostratigraphy.

3+6=9

Or

Write in detail the geological timescale with different eons, eras and periods. 9

2. Define correlation. Write on the methods of correlation and their applications. 2+7=9
3. Write short notes on any *three* of the following : 3×3=9
- (a) Relative and absolute age of rocks and their determination
 - (b) Paleogeography and its application
 - (c) Sequence stratigraphy
 - (d) Dendrochronology
 - (e) Relationship of stratigraphy with other branches of geology
4. Fill in the blanks with appropriate words : 1×3=3
- (a) Graptolites are used to correlate the rocks of _____ era.
 - (b) Potassium-argon method is more suitable for determination of age of older _____ rocks.
 - (c) Erathem is a unit of _____.

(3)

UNIT—2.2

(Indian Stratigraphy)

(Marks : 50)

5. Describe the Precambrian stratigraphy of Singbhum with respect to lithology, tectonics and igneous activity. 10

Or

Write on the stratigraphy of the Proterozoic rocks of Vindhyan basin. 10

6. Write on the classification, lithology, paleontology, igneous activity and economic importance of Gondwanas of Peninsular India. 10

Or

Describe the stratigraphy, lithology and paleontology of cretaceous of Trichinopoli. 10

7. Write on the Paleogene rocks of North-East India with respect to their stratigraphy, lithology and paleontology. 10

Or

Write in detail about lithology and paleontology of the Siwalik Group. 10

8. Write on the physiographic sub-divisions of India giving emphasis on their structure and tectonic history. 6

9. Write notes on any *three* of the following :

3×3=9

- (a) Khasi Greenstone
- (b) Dupi-Tila Group
- (c) Saline Series (Group)
- (d) Kistna (Krishna) Group
- (e) Productus Shales

10. Fill in the blanks with appropriate words :

1×5=5

- (a) Bhuj beds belong to _____ Group of Jurassic of _____.
- (b) The dominant lithologies of Tipam Group of North-East India are _____ and _____.
- (c) The glauconite bearing sandstones of the South Shillong Plateau belong to _____ formation of _____ age.
- (d) Fossil *Physa* is found in _____ beds of _____ Traps.
- (e) Vempalle shales and limestones belong to _____ Group of _____ Supergroup.
