

- (g) Write short notes on 'Closepet Granite' and 'Newer Dolerite'.
- (h) Discuss briefly the broad units of Central Indian Tectonic Zone (CITZ).

— X —

FINAL BACHELOR OF SCIENCE EXAMINATION, 2019
(3rd Year, 1st Semester)

GEOLOGICAL SCIENCES

Stratigraphy

Paper - XI

Time : Two hours

Full Marks : 50

Use a separate answer script for each group.

GROUP - A

Answer *q.no.1* and any *four* from the rest.

1. Match the following fossils with age :

Fossils	Age
<i>Pseudomonotis himaica</i>	Lr. Carboniferous
<i>Syringothyris cuspidata</i>	Turonian
<i>Bruhathakayosaurus matleyi</i>	Aptian
<i>Placenticerias mintoii</i>	Maastrichtian
<i>Deshayesites bosei</i>	Lr. Triassic

2. "Sea level changes as recorded in the sequence of Spiti area do not follow the global trends in eustatic sea-level changes during the Paleozoic Period" – Discuss the statement. 5

(Turn over)

(2)

3. “Kashmir area witnessed a local transgression during Permian time” – Jistify the statement. 5
4. Write a note on the Permo-Triassic boundary in Extrapeninsular India. 5
5. Discuss bipartite and tripartite subdivisions of the Gondwana Supergroup. 5
6. Briefly discuss the tectonic evolution of Assam Basin. 5
7. Write down the general characteristics of the Gondwana Supergroup. Define ‘Gondwana Province’ in Peninsular India. 3+2
8. Describe the evidences of Cretaceous sea level rise from the cratonic part of peninsular India. 5
9. Comment on the paleogeographic configuration of the Indian Gondwana basins during Late Carboniferous-Early Permian time. 5

(3)

GROUP - B

10. Answer any *five* questions. 5x5=25
 - (a) Discuss briefly the tectonic evolution of the Bastar craton.
 - (b) Why is it difficult to reconstruct the geologic history of Precambrian time ? What are the reasons to assume that Earth’s early atmosphere was lost in space ?
 - (c) Delineate the major crustal scale shear zones and major tectonic units in the Southern Granulite terrain. What is ‘Fermor line’ ?
 - (d) Write the process of formation of Earth’s earliest crust with schematic diagrams. True komatiites are rare and essentially restricted to rocks of Archean age – Justify.
 - (e) Draw a N-S cross section of the Singhbhum craton up to The Chthonagpur Granite Gneissic Complex (CGGC) to show the major litho-units and crustal scale structures. What are the important lithological units of IOG ?
 - (f) Discuss the characteristic feature of Archean greenstone belts.

(Turn over)