

2014

GEOLOGY

(Major)

Paper : 5.2

(Indian Stratigraphy)

Full Marks : 60

Time : 3 hours

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

1. (a) Choose the correct answer from the following : 1×3=3
- (i) Gypsum is found in the 'saline series'.
 - (1) True
 - (2) False
 - (ii) Haimanta group is related to
 - (1) Vindhyan supergroup
 - (2) Palaeozoic rocks of Spiti
 - (3) Cretaceous rocks of South India
 - (4) Aravalli supergroup
 - (iii) Nallamalai group is dominantly composed of quartzite, shale and limestone.
 - (1) True
 - (2) False

(b) Answer the following : $1 \times 4 = 4$

(i) Name a formation of the Gondwana Sequence where Noeggerathiopsis fossil is found.

(ii) Name the formations of the Dupitila group.

(iii) What is 'Indo-Brahm' river?

(iv) What is 'Neobolus Beds'?

2. Give brief answers to the following : $2 \times 4 = 8$

(a) What is 'greenstone belt'?

(b) What is 'charnockite'? Why is it also called 'charnockite series'?

(c) Where is the salt range located? Why is it named 'salt range'?

(d) What are 'Barren Measures'? Why is it called 'Barren'?

3. Answer the following (any three) : $5 \times 3 = 15$

(a) Write briefly on the igneous activities in the Dharwar Province.

(b) Discuss the tectonic settings of the Shillong plateau.

(c) Give a stratigraphic account of the Sylhet formation.

- (d) Write briefly on the lithological characteristics and tectonic settings of the older metamorphic group.
- (e) Write on the age of the Deccan traps on the basis of the palaeontology of the infra-trappean and inter-trappean beds.
4. (a) Give a stratigraphic account of the Eastern Ghats Province on the basis of its broad lithological units and igneous activities. 5+5=10

Or

Discuss the Precambrian stratigraphy of the Aravalli-Bundelkhand Province with reference to its tectonic evolution and lithology. 5+5=10

- (b) Give the stratigraphic succession of the Siwaliks. Discuss the palaeogeography of the Siwaliks with supporting evidences from lithology and palaeontology. 4+6=10

Or

Write on the stratigraphy of the Cretaceous rocks of North-East India with reference to its palaeogeography, palaeontology and lithology. 3+4+3=10

(c) Give the Triassic stratigraphic succession of Spiti. Discuss the palaeontological and lithological records of the succession. $4+3+3=10$

Or

Give the classification of the Gondwana rocks of India. Draw a map of India and locate the Gondwana basins. Write briefly on the marine intercalated beds of Manendragarh and Umaria. $4+3+3=10$

Group
Nagpur
Umbarhath
Laka
Laka
T.S