

B.E. Mining Engineering (CBCS Pattern) Sem-IV
4BEMN04 : Mining Geology

P. Pages : 1

Time : Three Hours



GUG/S/19/11964

Max. Marks : 80

- Notes :
1. All questions carry equal marks.
 2. Assume suitable data wherever necessary.
 3. Diagrams and Chemical equation should be given wherever necessary.
 4. Illustrate your answers wherever necessary with the help of neat sketches.

1. Give an account of the Gondwana supergroup with reference to its distribution, classification and economic importance. 16

OR

2. Describe various principles of stratigraphy and add a notes on physiographic divisions of India. 16

3. What is a fault ? Describe various types of fault in detail and add a notes on their importance in mining operation. 16

OR

4. a) A sand stone bed in a mine is dipping at 1 in 5 along N 45° W. Find the directions which it apparent dip is 1 in 8. Give procedure scale 1 unit = 1 cm. 8

- b) In a level ground a limestone bed is dipping at 25° West. Its outcrop is 160 m wide. Find its true thickness and vertical thickness. Write procedure scale 1 cm = 40 m. 8

5. What are rocks ? Describe Tabular classification of igneous rock in detail and add a notes on structure of Igneous rocks. 16

OR

6. Write short notes on :

- a) Classification of sedimentary rocks. 8

- b) Agents of metamorphism. 8

7. Describe the formation of mineral deposits by the process of hydrothermal ore deposits. 16

OR

8. Write short notes on :

- a) Supergene sulphide enrichment deposits. 8

- b) Indian coal fields. 8

9. Describe the various zones of ground water in the roles that occurs below the earth surface. Explain aquifer, aquiclude and aquifuge. 16

OR

10. Write short notes on :

- a) Gravity method of geophysical prospecting. 8

- b) Electrical method of geophysical prospecting. 8
