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ANNA UNIVERSITY (UNIVERSITY DEPARTMENTS)

B.E. /B.Tech / B. Arch (Full Time) - END SEMESTER ARREAR EXAMINATIONS, NOV/DEC 2024

MINING ENGINEERING  
Semester - III  
AG5306 Geology for Mining - I

(Regulation 2019)

Time:3 hrs

Max.Marks: 100

CO1	General Geology
CO2	Landforms & Stratigraphy
CO3	Mineralogy
CO4	Petrology
CO5	Structural Geology

BL – Bloom's Taxonomy Levels

(L1-Remembering, L2-Understanding, L3-Applying, L4-Analysing, L5-Evaluating, L6-Creating)

PART- A (10 x 2 = 20 Marks)  
(Answer all Questions)

Q.No	Questions	Marks	CO	BL
1	What is divergent plate boundary?	2	1	1
2	Write any four applied branches of Geology	2	1	1
3	Write a short note on Cretaceous rocks of Tamil Nadu	2	2	2
4	What are coral reefs? Mention their types	2	2	2
5	Mention any four minerals belonging to Feldspar group	2	3	1
6	Write the Mohs scale of hardness	2	3	1
7	Give any two examples for Igneous and Metamorphic rocks	2	4	1
8	What is monomineralic rock? Give one example	2	4	2
9	What is the difference between Horst and Graben?	2	5	2
10	What is angular unconformity?	2	5	1

PART- B (5 x 13 = 65 Marks)  
(Restrict to a maximum of 2 subdivisions)

Q.No	Questions	Marks	CO	BL
11 (a)	Give a detailed account on internal structure and composition of Earth	13	1	3
OR				
11 (b)	Give a detailed account on different types of aquifers	13	1	3
12 (a)	Explain the Geological Time scale and its importance	13	2	3
OR				
12 (b)	Explain in detail about alluvial land forms with neat sketches	13	2	3
13 (a)	Discuss in detail about the physical properties used to identify a mineral	13	3	3
OR				
13 (b)	Write the properties and industrial uses of Mica group of minerals	13	3	3
14 (a)	Elaborate on engineering properties of rocks to be examined in the laboratory and field	13	4	4

OR					
14 (b)	Write the important properties and uses of Basalt, Marble, Sandstone and Dolerite	13	4	4	
15 (a)	Give a detailed account on different types of folds and their importance in mining	13	5	4	
OR					
15 (b)	How will you classify the joints? Explain their importance in mining	13	5	4	

**PART- C (1 x 15 = 15 Marks)**

(Q.No.16 is compulsory)

Q.No	Questions	Marks	CO	BL
16. (i)	Write the engineering classification of weathered rock and mention its significance in mining	8	1	5
(ii)	Write the importance of measurement of strike and dip of formations in mining engineering field	7	5	6

