



Roll No.

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ANNA UNIVERSITY (UNIVERSITY DEPARTMENTS)

B.E. /B.Tech / B. Arch (Full Time) - END SEMESTER EXAMINATIONS, MAY 2025

MINING ENGINEERING
Semester - IV
GY23C05 Geology for Mining Engineering - II

(Regulation 2023)

Time:3 hrs

Max. Marks: 100

CO1	Formation of Ore Deposits
CO2	Ore Geology
CO3	Fuel Geology
CO4	Geoprospecting
CO5	Geospatial Technology

BL – Bloom's Taxonomy Levels

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

PART- A (10x2 = 20 Marks)
(Answer all Questions)

Q.No	Questions	Marks	CO	BL
1	What are early magmatic deposits?	2	1	1
2	Mention the different types of ore suites	2	1	1
3	Write the industrial applications of barite and its occurrence in India	2	2	1
4	Mention the important ores of Nickel and Manganese	2	2	1
5	Write the properties of lignite deposit in Neyveli, Tamil Nadu	2	3	2
6	What are gas hydrates?	2	3	1
7	Write the importance of pitting in mineral exploration	2	4	2
8	Write a short note on radioactive mineral exploration done by Atomic Mineral Directorate (AMD)	2	4	2
9	How does DGPS differ from GPS?	2	5	2
10	Write the advantages of TIN model over DEM	2	5	2

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

Q.No	Questions	Marks	CO	BL
11 (a)	Elaborate on process of formation of residual deposits with neat sketches	13	1	3
OR				
11 (b)	Elaborate on process of formation of placer deposits with neat sketches	13	1	3

12 (a)	Give a detailed account on minerals used in fertilizer and ceramic industries	13	2	3
OR				
12 (b)	Give a detailed account on properties of various iron ores and their occurrence in India	13	2	3
13 (a)	Discuss in detail about nuclear minerals and their occurrence in India	13	3	3
OR				
13 (b)	Discuss in detail about migration and accumulation of oil and gas. Mention about distribution of oil and gas in India	13	3	3
14 (a)	Explain in detail about various subsurface logging techniques and their role in exploration	13	4	4
OR				
14 (b)	Explain in detail about calcification of mineral resources and reserves	13	4	4
15 (a)	Explain the role of geospatial technology in geological mapping and mineral exploration	13	5	4
OR				
15 (b)	Explain in detail about data acquisition and interpretation using remote sensing techniques	13	5	4

PART- C (1x 15 = 15 Marks)
(Q.No.16 is compulsory)

Q.No	Questions	Marks	CO	BL
16. (i)	Brief about the mining activities in UCIL underground mine at Tummalapalle, Andhra Pradesh	7	3	6
(ii)	Brief about the role of level plan and slice plan in mineral exploration	8	4	5

