ANNA UNIVERSITY (UNIVERSITY DEPARTMENTS)

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

MINING ENGINEERING
VIII Semester
GE 5003 MINE ECONOMICS AND INVESTMENT
(Regulation 2019)

Time:3hrs   Max.Marks: 100

CO1	The students will have knowledge on Mine Economics
CO2	The students will have knowledge on Reserve Estimation
CO3	The students will have knowledge Estimation and valuation of mineral deposits.
CO4	The students will have knowledge Project appraisal .
CO5	The students will have knowledge on Finance and accounting

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	Name any two mineral Group, with two examples each?	2	CO1	L1
2	What are the components of Policy support in Mining Unique investment environment?	2	CO1	L1
3	Explain briefly Augur sampling method?	2	CO2	L2
4	What do mean by 111 in UNFC Classification of Reserve?	2	CO2	L2
5	Name the two types of Depletion allowance?	2	CO3	L3
6	Give the formula for Pay - back period	2	CO3	L3
7	Name the two causes of Escalation?	2	CO4	L4
8	Name the two measures of Inflation?	2	CO4	L4
9	What is Profitability Index, Give the formula?	2	CO5	L5
10	What is IRR?	2	CO5	L5

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

Q.No.	Questions	Marks	CO	BL
11 (a)	Explain 2019 National Mineral policy – Rationale, Objectives, Changes and Salient features?	13	CO1	L2

OR

		Marks	CO	BL
11 (b)	Name the risk factors of Mining Investment and Evaluation and Explain three of them?	13	CO1	L2
12 (a)	What is the purpose and Principle of Mine Sampling and explain Channel and Bulk Sampling?	13	CO2	L3

<div align="center">OR</div>

12 (b)	Explain in detail the UNFC Classification of Reserve?	13	CO2	L3
13 (a)	Which is better? Use Future Value Concept:	13	CO3	L4

Project A is predicted to bring in 2 crores in one year.

Project B is predicted to bring in 2 crores in two years.

Project C is predicted to bring in 3 Crores in two years.

<div align="center">OR</div>

13 (b)	What is depreciation, what are the causes and explain in detail both the methods of depreciation?	13	CO3	L4
		13		
14 (a)	Explain in detail IRR and Payback Period?	13	CO4	L5

<div align="center">OR</div>

14 (b)	Explain in detail Royalty, Dead Rent, NMET, DMF Contributions, Taxes and Components of risks of Project Financing?	13	CO4	L5
15 (a)	Explain in detail Balance Sheet, its purpose, Contents, Asset, Liabilities and Owners equity?	13	CO5	L6

<div align="center">OR</div>

15 (b)	What are different areas of Mine Costing and explain Activity based costing through one example?	13	CO5	L

<div align="center">

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

</div>

Q.No.	Questions	Marks	CO	BL
16.	Explain Ore reserve estimation, its principle and in detail Polygon and triangulation methods?	15	CO2	L4