

## Model Question Paper-1 with effect from 2019-20 (CBCS Scheme)

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### Fourth Semester B.E. Degree Examination Underground Metal Mining

TIME: 03 Hours

Max. Marks: 100

Note: 01. Answer any **FIVE** full questions, choosing at least **ONE** question from each **MODULE**.

Module -1			*Bloom's Taxonomy Level	Marks
Q.01	a	What are the selection criteria for level interval in underground metal mines?	L1	10
	b	Describe jaw crusher used in underground metal mining with neat sketch	L2	10
OR				
Q.02	a	List out the scope and limitation of underground metal mines.	L1	10
	b	Define the following terminologies with neat sketch I) Reef II) Footwall drive III) Shaft station IV) Drift	L1	10
Module-2				
Q. 03	a	Explain Alimak raising method with well labeled neat sketch.	L2	8
	b	Length of the stope =15m, Width of the stope=20m, Height of the stope= 25m, Density of the Zinc ore= 2.8, Total drilling length of the stope= 2200m. Calculate I) Volume of the stope II) Tonnage of the stope III) Drill factor	L3	12
OR				
Q.04	a	List out the factors which affect selection of stoping method.	L1	8
	b	Length of the stope =20m, Width of the stope=25m, Height of the stope= 40m, Density of the Zinc ore= 3.2, Total explosive used in the stope= 1000KG. Calculate I) Volume of the stope II) Tonnage of the stope III) Powder factor	L3	12
Module-3				
Q. 05	a	Illustrate room and pillar method of working with well labeled neat sketch.	L2	10
	b	Explain Shrinkage method of stoping with neat sketch.	L2	10
OR				
Q. 06	a	Describe Blast hole stoping with well labeled neat sketch.	L2	10
	b	Explain vertical retreat method of stoping with neat sketch.	L2	10
Module-4				
Q. 07	a	Summaries sublevel caving with its applicability, preparation and neat sketch.	L2	10
	b	Explain Block caving method of extraction with neat sketch.	L2	10
OR				
Q. 08	a	Illustrate stope preparation work in underground metal mining industry.	L2	10
	b	Describe Top slicing method of ore extraction with neat sketch.	L2	10
Module-5				
Q. 09	a	List out the problems in deep belowground metal mines.	L1	8
	b	Explain In-situ leaching method with well labeled neat sketch.	L2	12
OR				
Q. 10	a	Explain underground retorting method with well labeled neat sketch.	L2	10
	b	Describe bore hole mining with neat sketch.	L2	10