

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

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### Fourth Semester B.E. Degree Examination Subject Title GEOLOGY FOR MINING ENGINEERS

TIME: 03 Hours

Max. Marks: 100

- Note: 01. Answer any **FIVE** full questions, choosing at least **ONE** question from each **MODULE**.  
02. Draw neat diagrams, wherever necessary

Module -1			*Bloom's Taxonomy Level	Marks
Q.01	a	Write short note on Topographic maps.	L1	04
	b	What are folds? With neat sketches, explain the different types of folds and its importance in mining.	L1	08
	c	What is an unconformity? Explain the different types of unconformity.	L1	08
OR				
Q.02	a	Explain the effects of topography on outcrops.	L2	04
	b	Define Faults. Add a note on their field recognition and importance in mining operation.	L1	08
	c	Explain classification of folds. Add a note on its importance in mining operation.	L2	08
Module-2				
Q. 03	a	Explain various forms in which igneous rock masses occur in nature. Illustrate your answer with neat sketches.	L2	08
	b	What are the effects of fold on ore body and their importance?	L1	06
	c	Define stereographic projection. Write a note on principles of stereographic projection.	L1	06
OR				
Q.04	a	Write short notes on the following: I. Dyke and sill II. Batholiths III. Lopoliths	L3	06
	b	What are the effects of fracture on ore body and their importance in mining operation?	L1	06
	c	Write a note on: I. Stereographic projection of linear features of rocks. II. Stereographic projection of planar features of rocks.	L1	08

<b>Module-3</b>				
Q. 05	a	Write note on the scope of economic geology in mineral industry.	L1	04
	b	What are Hydrothermal deposits formation and its economic minerals?	L1	08
	c	Explain the origin, occurrence and distribution of iron ore deposits of India.	L2	08
<b>OR</b>				
Q. 06	a	Write a note: i) ore mineral, ii) Gangue	L1	04
	b	Explain the classification of mineral deposits.	L2	08
	c	Explain the origin, occurrence and distribution of copper ore deposits of India	L2	08
<b>Module-4</b>				
Q. 07	a	What is mineral exploration? Explain different methods of mineral exploration.	L1	06
	b	Explain the following geophysical methods with suitable sketches, and also discuss their importance i. Gravity method ii. Seismic refraction method iii. Magnetic method	L2	10
	c	What are the difference between reserves and resources?	L1	04
<b>OR</b>				
Q. 08	a	Write a note on geophysical prospecting for mineral exploration.	L1	06
	b	Define sampling and different methods of sampling.	L1	05
	c	Differentiate between the following with regards to geophysical exploration i. Nuclear and non nuclear logs ii. Reflection and refraction method iii. Electrical resistivity technique and Electromagnetic	L1	09
<b>Module-5</b>				
Q. 09	a	Define physical and chemical properties of coal.	L1	06
	b	Write a note on migration of petroleum and natural gas.	L1	06
	c	Explain the origin, occurrence and distribution of coal deposits of India.	L2	08
<b>OR</b>				
Q. 10	a	Explain different stages of coal formation and its origin.	L2	06
	b	Explain chemical properties and origin of petroleum.	L2	06
	c	Write a note on oil fields of India.	L1	08

\*Bloom's Taxonomy Level: Indicate as L1, L2, L3, L4, etc. It is also desirable to indicate the COs and POs to be attained by every bit of questions.