

GUJARAT TECHNOLOGICAL UNIVERSITY**BE- SEMESTER-VI (NEW) EXAMINATION – WINTER 2020****Subject Code:2162205****Date:27/01/2021****Subject Name:Mine Surface Environment****Time:02:00 PM TO 04:00 PM****Total Marks: 56****Instructions:**

1. Attempt any **FOUR** questions out of **EIGHT** questions.
2. Make suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.

		MARKS
Q.1	(a) Which minerals are responsible for generation of Acid Mine Drainage?	03
	(b) Explain Environmental issues in mineral industry.	04
	(c) Describe ecological and sociological impacts of mine environment.	07
Q.2	(a) Discuss the precautions are taken for prevent air pollution.	03
	(b) How is the intensity of noise measured? In what way is a miner affected by Exposure to loud noises over long years?	04
	(c) What are the anthropogenic changes in ecosystem? Explain with suitable example.	07
Q.3	(a) How airborne dust is generated and dispersed in mining?	03
	(b) Write a note on primary causes of Fly rock.	04
	(c) Write a short note on environmental management in mining operation.	07
Q.4	(a) How water pollution can be controlled from mining activities?	03
	(b) What is airborne repairable dust? Explain its harmful physiological effects and control.	04
	(c) Discuss the impacts of mining activities on surface and sub-surface water bodies.	07
Q.5	(a) How land environment can be affected by mining?	03
	(b) What are the impacts of open-cast mining on environment ?	04
	(c) What is AMC? Which are the AMC generating minerals and what is its impact on environment?	07
Q.6	(a) Describe different impacts of mining activities on forests.	03
	(b) What are the land use changes due to mining and how mining affects the soil degradation?	04
	(c) List out the different health hazards due to mining activities. Explain the various conditions effects on the health of the persons engaged in mines.	07
Q.7	(a) How soil quality degraded due to mining?	03
	(b) Explain Land-use pattern and landscape planning.	04
	(c) Explain dust hazards in mines. Add a note on dust control by the respiratory system.	07

Q.8

- (a) Write note on effect of Mining activity on Environment. **03**
- (b) Which are the anthropogenic sources of air pollution? Explain any one with an example. **04**
- (c) Which environmental problems are found in contour-strip mining? Add a note on stabilizing the debris dumps in this mining operation. **07**

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