



USN

--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

10MN71

**Seventh Semester BE Degree Examination, Aug./Sept.2020**  
**Mine Planning and Design**

Time: 3 hrs.

Max. Marks:100

**Note: Answer any FIVE full questions, selecting at least TWO questions from each part.**

**PART - A**

- 1 a. Explain the social, legal, political, economic impacts of mining. (10 Marks)  
b. Explain the health and safety standards and environmental consequences of mining. (10 Marks)
- 2 a. Explain the process Land Acquisition and explain Environmental Protection and Permission. (10 Marks)  
b. Explain plant silting and its construction. (10 Marks)
- 3 a. Explain the principles of mine planning. Explain the geological aspect of mine planning. (10 Marks)  
b. Explain stages of planning of new mines. (06 Marks)  
c. Write a short note on Division of Coal Field into mining areas. (04 Marks)
- 4 a. With a neat labeled sketch surface layout of a large colliery? List any five application of computer to mine planning. (10 Marks)  
b. With a neat sketch, explain the standard pit bottom layout for skip winding adopted in slot land. (10 Marks)

**PART - B**

- 5 a. Explain the following terms Mining Area, Term of life and mine capacity. Explain the factors affecting division of mining property. (10 Marks)  
b. Derive an expression for determination of number of productive faces and their position within mining area. (10 Marks)
- 6 a. Explain the method of opening up a Deposit with Adit with a labeled diagram. (10 Marks)  
b. Explain the method of opening up of a Deposit with shafts and cross measure drift. (10 Marks)
- 7 a. With a neat sketch explain the most profitable method of mining in underground coal mine. (10 Marks)  
b. Explain mine closure, sealing and abandonment. (10 Marks)
- 8 Explain any two Novel and innovative mining method with their evaluation and system. (20 Marks)

\* \* \* \* \*

Important Note : 1. On completing your answers, compulsorily draw diagonal cross lines on the remaining blank pages.  
2. Any revealing of identification, appeal to evaluator and /or equations written eg, 42+8 = 50, will be treated as malpractice.