

CBCS SCHEME

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18MN643

Sixth Semester B.E. Degree Examination, July/August 2022 Environmental Management in Surface Mines

Time: 3 hrs.

Max. Marks: 100

Note: Answer any FIVE full questions, choosing ONE full question from each module.

Module-1

- 1 a. Explain the various kinds of environmental issues in the global and national level mineral industries. (10 Marks)
- b. Explain the various ambient environmental mining complexes. (10 Marks)

OR

- 2 a. Explain the various environmental impacts of mineral exploitation due to opencast mining and associated activities. (10 Marks)
- b. Explain the various methods of measurement and mitigating measures adopted for controlling air pollution in surface mines. (10 Marks)

Module-2

- 3 a. List the various sources of water pollution and its ill effects due to mining activities. (10 Marks)
- b. Explain the various causes and preventive measures for acid mine drainage. (10 Marks)

OR

- 4 a. Explain the method of detecting ground water pollution due to mining activity. (10 Marks)
- b. Explain the various methods of heavy metal pollution abatement process in surface mining industries. (10 Marks)

Module-3

- 5 a. Explain the various adverse effects of blasting in a surface mine and list the controlling measures for the same. (10 Marks)
- b. A residential structure is located 3500feet from a blast site. Each blast hole is loaded with 2000 pounds of explosives. How many holes can be detonated with in 8 milliseconds. (05 Marks)
- c. Explain the various steps to control noise pollution in surface mining industries. (05 Marks)

OR

- 6 a. Explain the various sources and effects of noise pollution due to surface mining activities. (10 Marks)
- b. A church is located 280 feet from a mine road cut that will be blasted. How many pounds can be detonated per delay in the blast? (05 Marks)
- c. Explain the various methods to control fly rock in a surface mine. (05 Marks)

Module-4

- 7 a. Explain the various environmental factors affecting re-vegetation process in biological land reclamation method of mining. (10 Marks)
- b. Explain Rehabilitation and Re-settlement management in societal environment. (05 Marks)
- c. Explain the methods of vegetation establishment in biological land reclamation in mining. (05 Marks)

OR

- 8 a. Explain the methods of analysis and evaluation of site and soil for biological land reclamation in mining. (10 Marks)
b. Explain the concept of carrying capacity based planning in surface mining environment. (05 Marks)
c. Explain the process of sustainable development in mining industry. (05 Marks)

Module-5

- 9 a. Explain the methods of EIA and their applicability in surface mining project. (10 Marks)
b. Explain the salient features of environmental protection act for mining industries. (10 Marks)

OR

- 10 a. Explain the environmental administration and management in surface mining industries in India. (10 Marks)
b. Explain the environmental management plan for surface mining industries. (10 Marks)

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