

Afternoon Session

THE MINES ACT, 1952

Examination for Mine Manager's Certificate of Competency under the Coal Mines Regulations, 1957

FIRST CLASS

MINE MANAGEMENT, LEGISLATION & GENERAL SAFETY

Sunday, the 12th December, 2010.

Full Marks : 100

Time : 3 Hours

Answer any SIX Questions

(Question 1 carry 20 marks and all other questions carry 16 marks)

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- 1(a) Elaborate the terms “fixed cost”, “variable cost” and “marginal cost” in respect of a coal mine for its financial viabilities. Assume your own conditions.
 - (b) What is the economic impact of mining? Define in your own terms and enumerate “corporate social responsibilities”.
 2. Answer any two:
 - (a) Composition of Safety Committee and function of Safety Committee.
 - (b) Withdrawal of supports and standing orders.
 - (c) Cost of accident, frequencies and severity rate.
 3. An intensively Bord & Pillar developed mine is planning to increase production from 2000 to 5000 tonnes per day by introducing highly productive machinery. List out the preparatory work to be undertaken till the targeted production is achieved. Describe the safe operating procedure for one of the machinery used for production.
 4. Write short notes on any two:
 - (a) Special training to front line supervisors with reference to 10th Safety Conference.
 - (b) Risk management
 - (c) Goaf edge support in mechanized depillaring
 5. A number of incidences/accidents are occurring due to hard landing of cages. List out the main causes and the statutory provision in man-winding in shafts.
 6. Define arduous travel with respect to underground mechanized mine. What are the statutory requirements before commissioning of such a system in your mine? Enumerate how to ensure safety of the persons travelling belowground in one such system.
 7. Write short notes on any two:
 - (a) Occupational health survey and its importance.
 - (b) Objective of Tripartite & Bi-partite meetings. How far it is useful in increasing the status of safety of a mine.
 - (c) Emergency response procedure for entrapped underground workers.
 8. In present day context of heavy mechanization and outsourcing in mines how as a manager of a mine you prevent employment of persons below eighteen years of age. What is laid down under the provisions of the Mines Act, 1952, Regulations, Rules and Orders made thereunder including penalties.