

Code No.: 30725

MR13

MALLA REDDY ENGINEERING COLLEGE (AUTONOMOUS)

(Affiliated to JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD)

Maisammaguda, Dhulapally, (Post Via kompally), Secunderabad-500 100.

IV B.Tech II sem Regular End Examinations, MARCH – 2017

SUBJECT: Mine Ground Control

Branch: MINING

Time: 3 Hours

Max Marks: 75 M

PART-A

I Answer All Questions

5 X 1M = 5 Marks

1. Define subsidence?
2. Define heave.
3. What are different types of wooden supports?
4. What is meant by strip packing?
5. What is meant by main fall?

II Answer All Questions

10x2M=20 Marks

1. What are the different stresses acting on working front in underground mines?
2. What are the different shotcret methods used in mines?
3. How can you determine the strength of pillars?
4. What is meant by rock burst?
5. Explain about friction supports?
6. Write a short note on open and closed circuit of hydraulic supports
7. What are the different embankments laid in mines?
8. Why pillar dimensions increase as depth increases?
9. What are the surface effects of underground subsidence?
10. How subsidence will vary with time?

PART - B

Answer all questions

5X10M=50 Marks

Q1. What are the constraints of ground control design in Board and pillar method?

(OR)

Q2. What are the different ground control practices we have to observe in underground coal mines?

Q3. Briefly explain about the creep behaviour of rock mass.

(OR)

Q4. What is meant by convergence? Which instruments are used in detecting it? Explain.

Q5. Explain about the factors effecting subsidence.

(OR)

Q6. What is meant by SSR? Explain.

Q7. What are the different types of slope failure?

(OR)

Q8. Elaborate the procedures to prevent failure for waste dumps.

Q9. What are the different methods to predict and measure subsidence?

(OR)

Q10 what are the factors that influence rock bursts?

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Maisammaguda, Dhulapally, (Post Via kompally), Secunderabad-500 100.

IV B.Tech II sem Regular End Examinations, APRIL - 2017

SUBJECT: Mine Health and Safety Engineering

Branch: MINING

Time: 3 Hours

Max Marks: 75 M

PART-A

I Answer All Questions

5 X 1M = 5 Marks

1. What are the manmade causes of accidents?
2. HAZOP stand for?
3. Write any two uses of safety audit cell in mines?
4. What is the use of controlled blasting in opencast mines?
5. What do you mean by Inundation?

II Answer All Questions

10x2M=20 Marks

1. What do you understand by the term accident report?
2. Define the term accident?
3. Define the term risk assessment?
4. What is meant by safety management?
5. Define disaster?
6. What is the duty of mine vocational training center?
7. Write any four causes of fire accidents in underground mines?
8. What is subsidence?
9. What is misfire? Write causes of misfire?
10. What is the purpose of sump in waterlogged workings?

PART- B

Answer all questions

5X10M=50 Marks

Q1. Define the following in terms of the Mine Health and Safety Act Employer, Health hazard, record, and Booster fan?

(OR)

Q2. What do you understand by the term statistical analysis? Tabulate the statistical analysis of mine accidents in India?

Q3. Briefly explain the safety analysis techniques used in mines?

(OR)

Q4. Describe risk identification and Risk Management?

Q5. Briefly explain the following a) Safety audit b) safety policies?

(OR)

Q6. What is the Human Behavioral approach in safety?

Q7. What are the common causes and preventive measures of accidents due to open cast mines?

(OR)

Q8. What are the steps taken by the manager in case of fire accidents in underground?

Q9. What are the causes and preventive measures of inundation?

(OR)

Q10. Name some safety precautions to be taken by the workers in underground?

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IV B.TECH II SEM REGULAR END EXAMINATIONS, MARCH - 2017

SUBJECT: Planning of Surface Mining Project

Branch: MINING

Time: 3 Hours

Max Marks: 75 M

PART-A

I Answer All Questions

5 X 1M = 5 Marks

1. What is meant by mine planning?
2. What is meant by NPV?
3. Write the factor of safety for bench slope?
4. Define the term reclamation.
5. Name any two blast patterns used in surface mines.

II Answer All Questions

10x2M=20 Marks

1. What are the different phases of mine planning?
2. What are the limitations of opencast mining?
3. How mining equipments are selected in surface mining?
4. What are the different terms associated with pit geometry?
5. What are the different machines used for haul road maintenance?
6. What is the purpose of mine handling plant?
7. What is meant by occupational diseases?
8. Why mobile workshops are needed in OC?
9. What the precautions measures to be taken while transporting explosives?
10. Write a short note on electronic detonators.

PART - B

Answer all questions

5X10M=50 Marks

Q1. What are the different steps in Feasibility report? Explain

(OR)

Q2. Explain the procedural steps of mine planning .

Q3. What are the different methods for estimating mine reserves?

(OR)

Q4. What is meant by optimum production? Briefly explain about any method

Q5. With a neat sketch briefly explain the working of Dozer.

(OR)

Q6. Discuss the different parameters for maintenance of haul roads.

Q7. Explain briefly about environmental impact assessment.

(OR)

Q8. Explain the different occupational diseases that occur in mines.

Q9. What are the issues and challenges to be faced with mine planning in future?

(OR)

Q10 Explain the stepwise procedure of mine closure planning.