

Roll No

MI - 505**B.E. V Semester**

Examination, June 2015

Mining Machinery - I*Time : Three Hours**Maximum Marks : 70*

Note: i) Answer five questions. In each question part A, B, C is compulsory and D part has internal choice.

ii) All parts of each questions are to be attempted at one place.

iii) All questions carry equal marks, out of which part A and B (Max.50 words) carry 2 marks, part C (Max.100 words) carry 3 marks, part D (Max.400 words) carry 7 marks.

iv) Except numericals, Derivation, Design and Drawing etc.

1. a) Define factor of safety.
- b) Describe rope capels with neat sketch.
- c) Describe rope splicing in detail.
- d) Explain examination of wire ropes.

OR

Write the installation of wire rope in Mining Industry.

2. a) Define mine holes.
- b) Write different system of rope haulage.
- c) Write safety devices used in rope haulage.

- d) Describe locomotive haulage with condition of applicability.

OR

Write classification of rope haulage system with their applicability.

3. a) Enumerate safety devices of winding system.
- b) Draw Head gear arrangement.
- c) Explain skip winding system.
- d) Describe cage suspension arrangements with neat sketch.

OR

Write the factor to be considered regarding location of winding engine.

4. a) Define winding system.
- b) Write advantages of Electric winding system.
- c) Draw Torque-Time diagram of winding system.
- d) Explain pit bottom layout of Mine with winding.

OR

Describe pit top layout of Mine with winding.

5. a) Define pump.
- b) Write sources of mine water.
- c) Draw characteristics curve of mine pump.
- d) Write the factors to be considered before selection of pump in mines.

OR

Explain special type of pump used in Mine drainage. "
