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**MI-602 (GS)**  
**B.E. VI Semester Examination, June 2020**  
**Grading System (GS)**  
**Mining Machinery - II**  
*Time : Three Hours*

**Maximum Marks : 70**

**Note:** i) Attempt any five questions.  
ii) All questions carry equal marks.

1. Sketch and describe construction of belt. Also explain types of belt used in mine and care of belt.
2. Explain the operating principles of various types of hydraulic motors along with the possibilities in the operation of the same.
3. a) Explain mono cable and bi cable Aerial ropeway with neat sketch.  
b) Explain different types of belt conveyor.
4. A conveyor is 600m long and conveys a mineral of bulk density  $0.8 \text{ te/m}^3$  up a gradient of 1 in 60 at 220 te/n. Assume that the belt width is 800mm. Calculate the suitable speed and belt strength and power of electric motor. ( $\mu_e = 0.03$ ,  $\mu_m = 0.04$ ).
5. Explain the merits and demerits of Koepe winding along with the classification of Koepe winder.
6. With neat diagrams describe the various systems of tensioning arrangements with belt conveyor system.

OR

- a) Describe safety devices used with conveyors.
  - b) Explain the pit bottom arrangement for feeding skip.
7. Write a note on floating platform.

OR

Explain multirope winding in details.

8. Write short notes on:
  - i) Angle stations
  - ii) Unloading stations

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