

MID-TERM EXAM

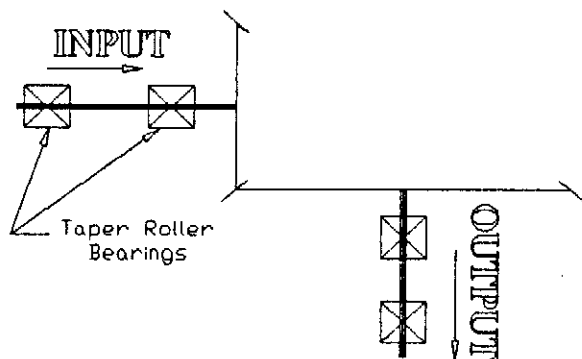
The shown figure is a Single Stage Bevel type Gear-Box used to transmit power between two perpendicular shafts in a mobile crane. The two gears are mounted such that both are overhung.

The following are the particulars of the Gear-Box :

Pinion RPM	1440
Input power	60 hp
Gear Ratio	3

You are required to submit the following :

- 1- Preliminary Design of the Bevel Gear set. 20%
- 2- Preliminary Design of the Input Shaft. 10%
- 3- Preliminary Design of the Input Shaft Taper Roller Bearings. 30%
- 4- Full Constructional Drawing of the Gear-Box showing all Details. 40%



SINGLE STAGE BEVEL GEAR-BOX