BACHELOR OF ENGINEERING (MECHANICAL ENGINEERING) FIRST YEAR FIRST SEMESTER - 2019

MACHINE DRAWING I

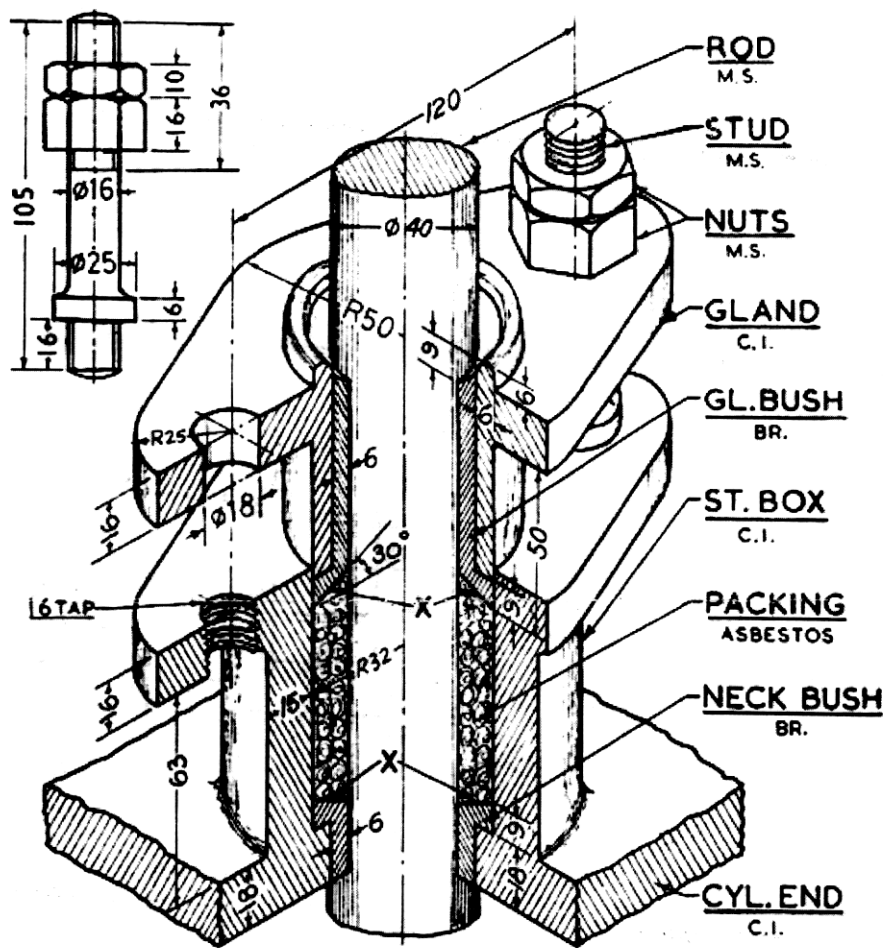Time: Four hours   Full Marks: **100**

Missing data, if any, are to be reasonably chosen. All dimensions are in mm.

1. Draw the sectional front view (with local section, if necessary) and side view of the Socket and Spigot Cotter Joint using following data:

   Rod diameter: 25 mm, Outer diameter of the socket: 45 mm, Inner diameter of the socket: 32 mm, Mean width of the cotter: 32 mm, Taper in the cotter: 1:30 (Taper in one side of the cotter only), Length of the cotter: 100 mm, Thickness of the cotter: 6 mm, Spigot collar diameter: 45 mm, Spigot collar thickness: 12 mm, Socket collar diameter: 63 mm, Socket collar thickness: 25 mm, Distance from cotter to the end of spigot: 23 mm, Distance from cotter to the end of socket: 25 mm, Clearance: 3 mm   **30**

2. Draw the detailed drawings of the individual components of the stuffing box as shown in Fig. Q2.

   70

Stuffing box

Fig. Q2