

**THIRD SEMESTER B.TECH. (ENGINEERING) DEGREE EXAMINATION
OCTOBER 2012**

ME/AM/AN 09 304/PTME 09 303—COMPUTER ASSISTED MACHINE DRAWING

(2009 Admissions)

Time : Three Hours

Maximum : 70 Marks

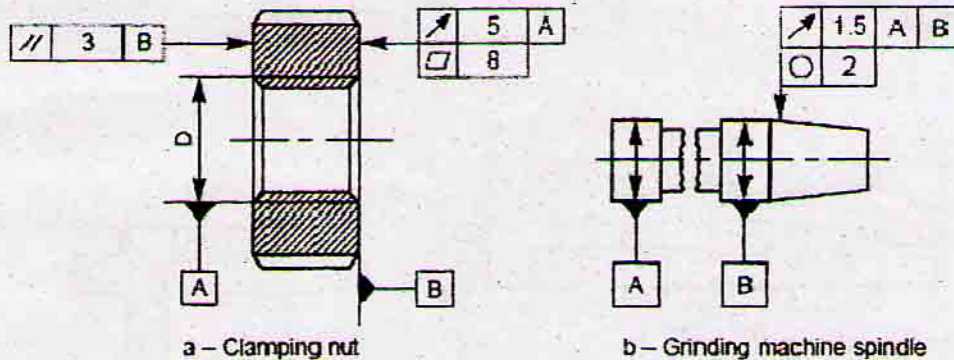
- I. 1 Draw the half sectional view from the front, with top half in section and the view from the side of a cotter joint with socket and spigot ends, to connect two rods of 50 mm diameter each.

Or

- 2 Draw (a) sectional view from the front and (b) view from the side of a universal coupling, indicating proportions, to connect two shafts, each of diameter 40 mm.

(15 marks)

- II. 3 Explain the meaning of the geometrical tolerances indicated in microns, for the machine tool components shown in Figure :



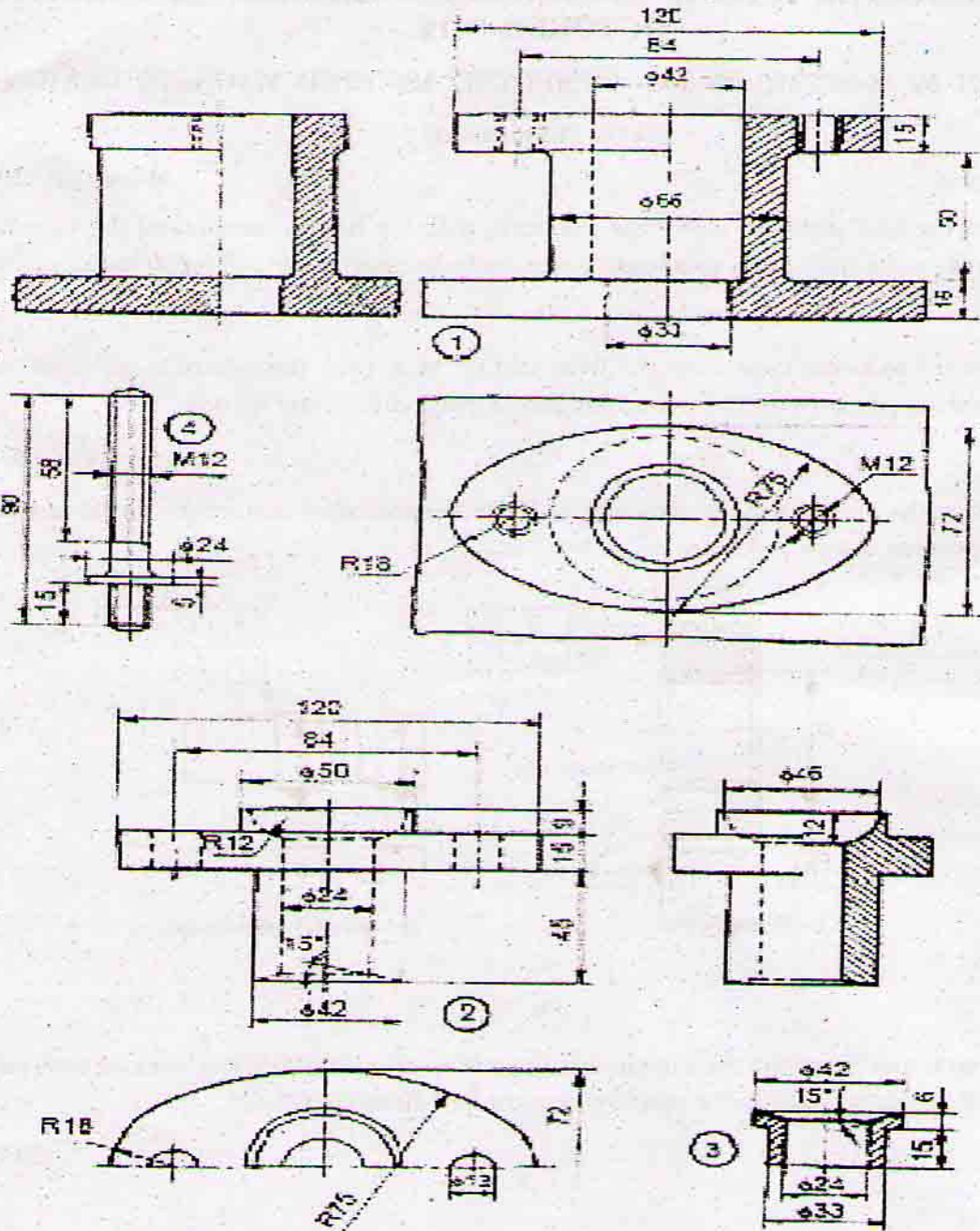
Or

4. Draw (a) sectional view from the front and (b) view from above of a foot-step bearing with radial and thrust ball bearings, suitable for supporting a shaft of diameter 60 mm.

(20 marks)

Turn over

5. Assemble all parts of the stuffing box for a vertical steam engine, shown in Figure and draw, (i) half sectional view from the front, with left half in section, (ii) half sectional view from the right and ; (iii) view from above.



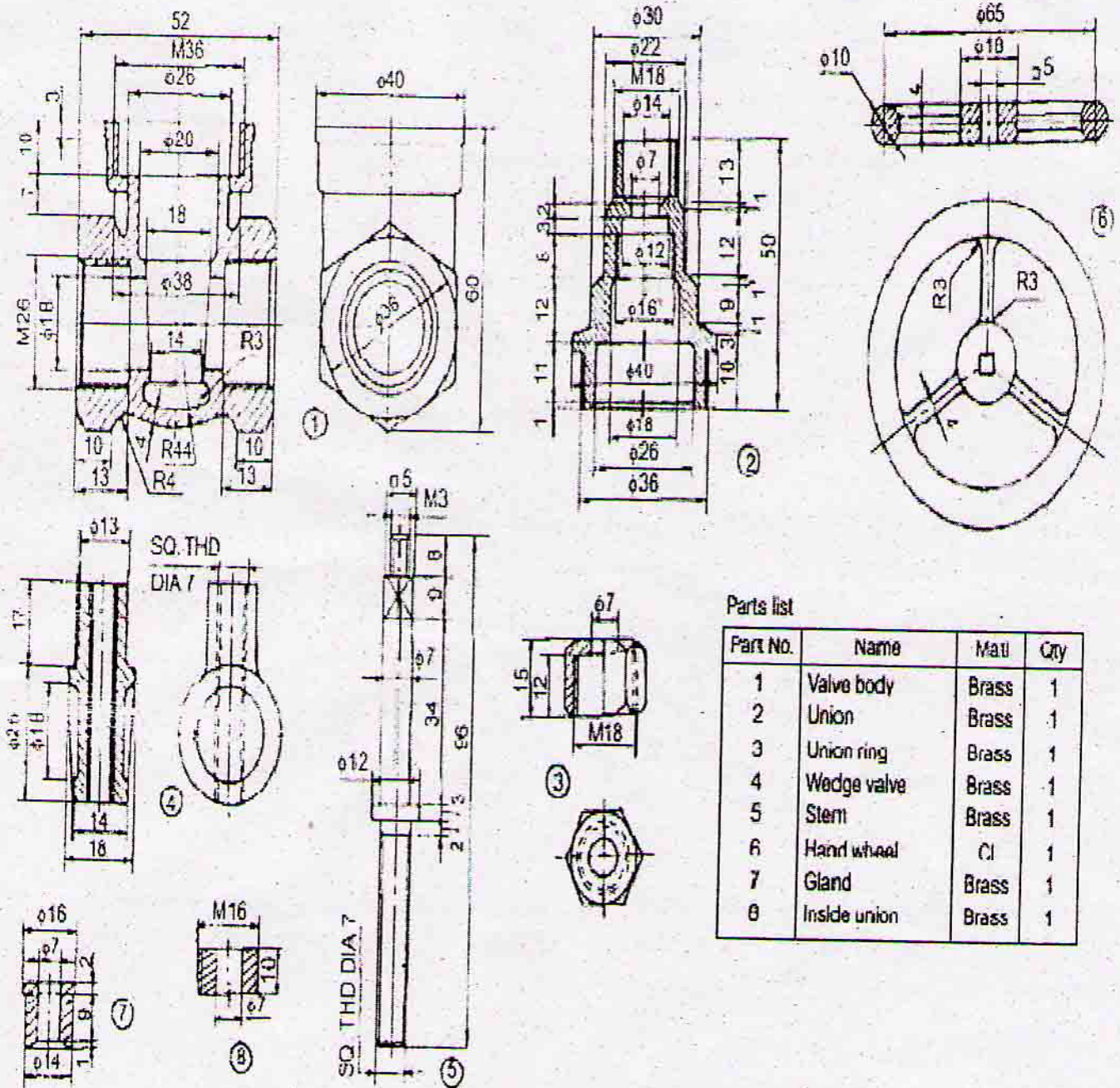
Parts list

Part No.	Name	Matl	Qty
1	Body	CI	1
2	Gland	Brass	1
3	Bush	Brass	1
4	Stud	MS	2
5	Nut, M12	MS	2

Fig. Stuffing Box

Or

6. Figure shows the details of a gate valve. Assemble the parts and draw to full scale, (i) sectional view from the front, (ii) the view from above and ; (iii) the view from the left.



Parts list

Part No.	Name	Matl	Qty
1	Valve body	Brass	1
2	Union	Brass	1
3	Union ring	Brass	1
4	Wedge valve	Brass	1
5	Stem	Brass	1
6	Hand wheel	Cl	1
7	Gland	Brass	1
8	Inside union	Brass	1

Fig. Gate valve

(35 marks)