D 70374   (Pages : 3)   Name..................

                                                             Reg. No..................

THIRD SEMESTER B.TECH. (ENGINEERING) (09 SCHEME) DEGREE EXAMINATION, NOVEMBER 2014

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

Time : Three Hours   Maximum : 70 Marks

I. 1. Sketch a suitable pipe joint to connect two pipes, each of diameter 250 mm. The pipes are to belaid underground. Indicate proportionate dimensions of various parts of the joint.

Or

   2. Draw (a) half sectional view from the front, top half in section and (b) half sectional view from the side, left half in section, of a split-muff coupling, indicating proportions to connect two shafts, each of diameter 50 mm.

                                                             (15 marks)

II. 3. Complete the tolerance frames in figure to satisfy the conditions required in each case : (a) the axis of the whole components is required to be contained in a cylindrical zone of 0.04 mm diameter ; (b) The top surface has to be parallel to the hole, with in a tolerance of 0.08 mm

(a)   (b)
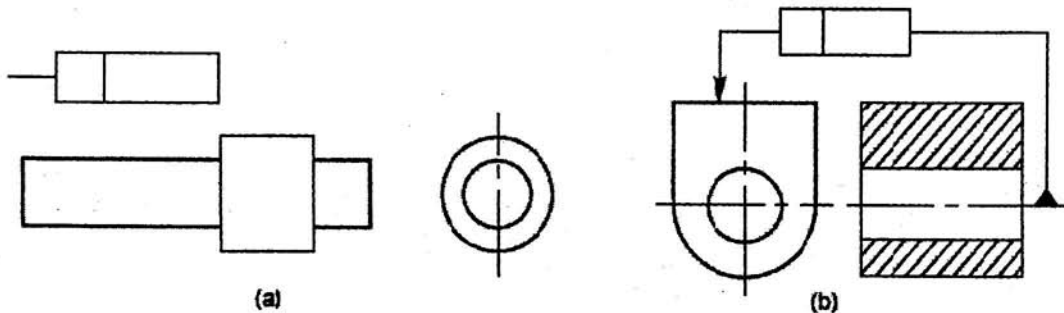
Or

   4. Indicating proportionate dimensions, sketch half sectional view from the front of a revolving centre, using thrust ball bearing.

                                                             (20 marks)

                                                             Turn over

III.   5 Figure shows the details of steam engine crosshead. Assemble the parts and draw,
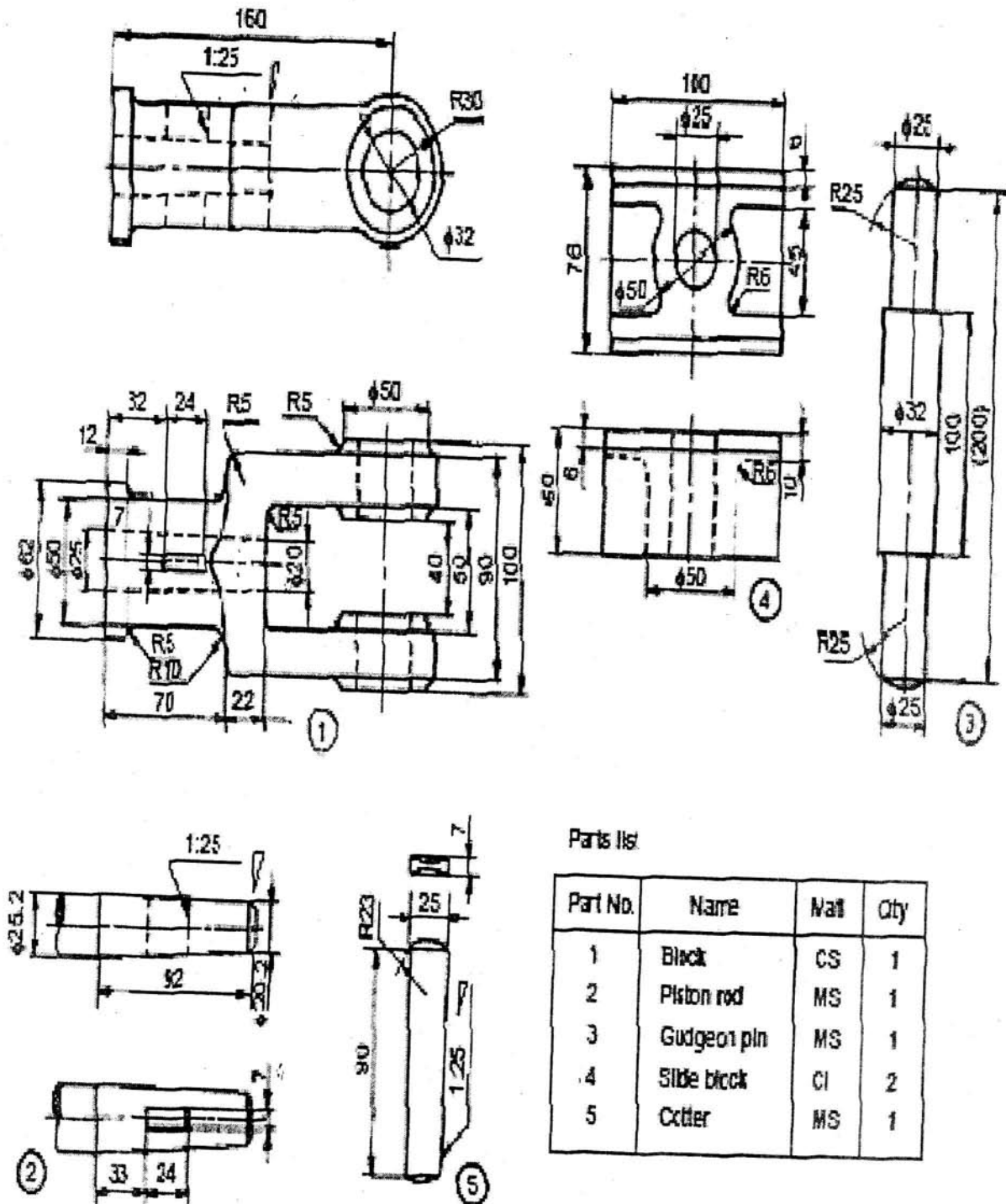   (i) halfsectional view from the front, with bottom half in section and ; (ii) view from above.

Figure. Steam Engine Crosshead

Part No.	Name	Mat	Qty
1	Block	CS	1
2	Piston rod	MS	1
3	Gudgeon pin	MS	1
4	Slide block	CI	2
5	Cotter	MS	1

Or

6. The part drawings of a non-return valve are shown in Figure. Assemble the parts and draw, (i) half sectional view from the front, (ii) view from the left and ; (iii) view from above.
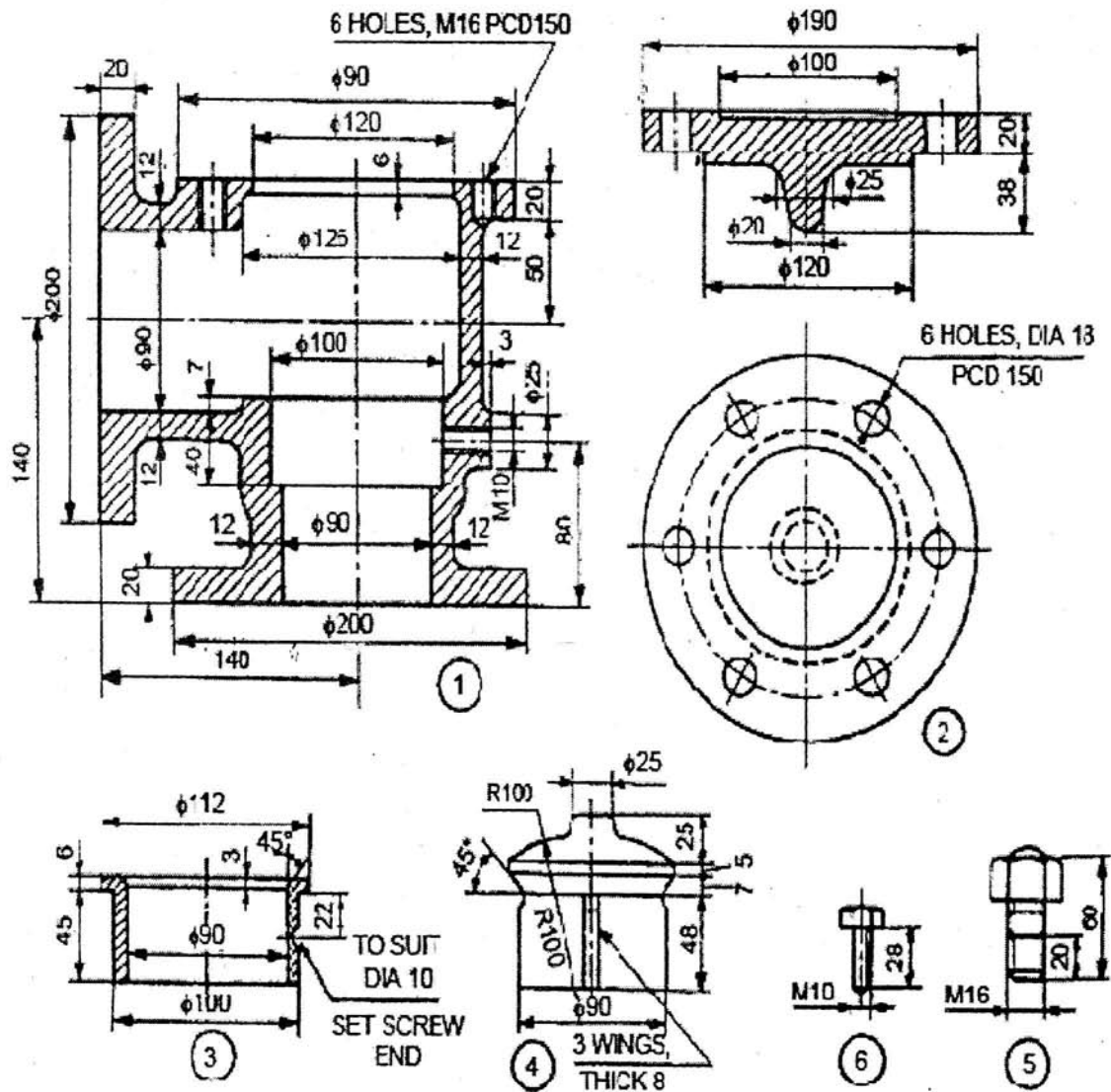
Parts list

No.	Name	Matl	Qty
1	Body	Brass	1
2	Cover	Brass	1
3	Valve seat	Bronze	1
4	Valve	Brass	1
5	Stud with nut	MS	6
6	Set screw	MS	1

Fig. Non return valve (light duty)

(35 marks)