

Total No. of Printed Pages:05

SUBJECT CODE NO:- H-325
FACULTY OF SCIENCE AND TECHNOLOGY
S.E. (Mechanical)
Machine Drawing
(REVISED)

[Time: Four Hours]

[Max.Marks: 80]

Please check whether you have got the right question paper.

N.B

- 1) Q.1 & Q.4 is compulsory.
- 2) Assume suitable data.
- 3) All dimensions are in mm.

Section A

Q.1 Three cut pieces of cylindrical pipes form a 'Y' Joint as given in Fig.1. Draw the development 14 of surfaces of all pieces A,B and C of 50 mm diameter.

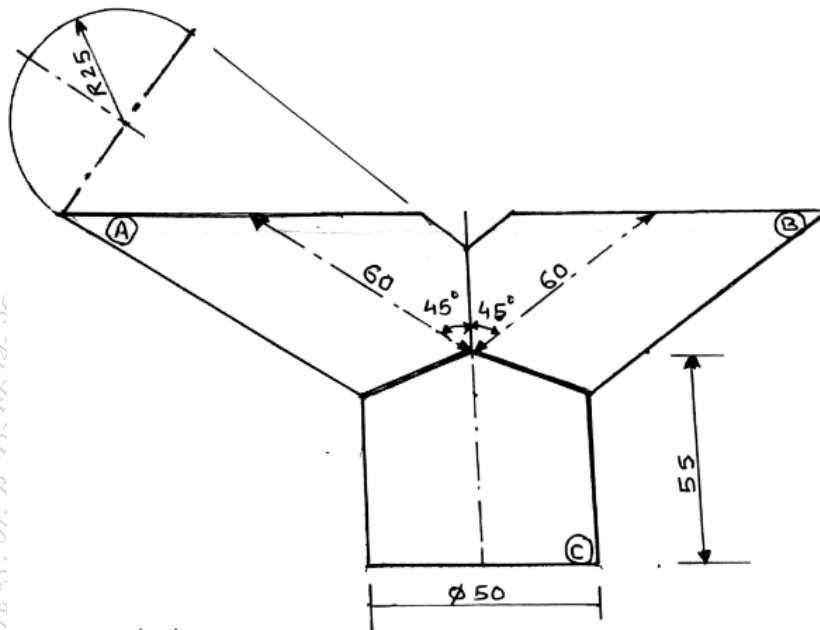


Fig 1

Q.2 A sq. prism 30 mm base sides and 70 mm axis is completely penetrated by another square prism of 25 mm sides and 70 mm axis, horizontally. Both axis intersects & bisect each other. All faces of prisms are equally inclined to V.P. Draw projections showing curves of intersection. 13

OR

A vertical cone, base diameter 75 mm and axis 100 mm long, is completely penetrated by a cylinder of 45 mm diameter. The axis of the cylinder is parallel to H.P. and V.P. and intersects axis of the cone at a point 28 mm above the base. Draw projection showing curves of intersection. 13

Q.3 Fig. 2 shows front view, incomplete top view and auxiliary view of an object. Redraw the front view and complete Top view showing all details.

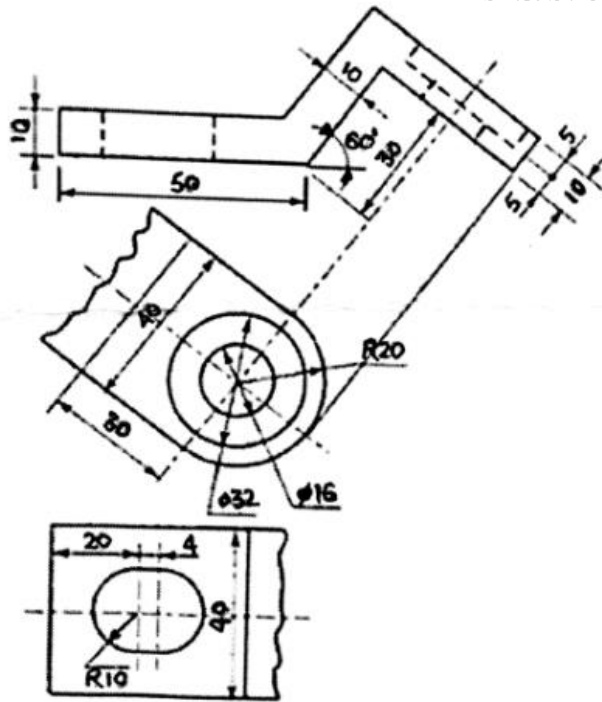


Fig.2

OR

Fig. 3 shows the top view, incomplete front view and partial auxiliary view of bracket. Draw the top view and complete the front view showing all details.

13

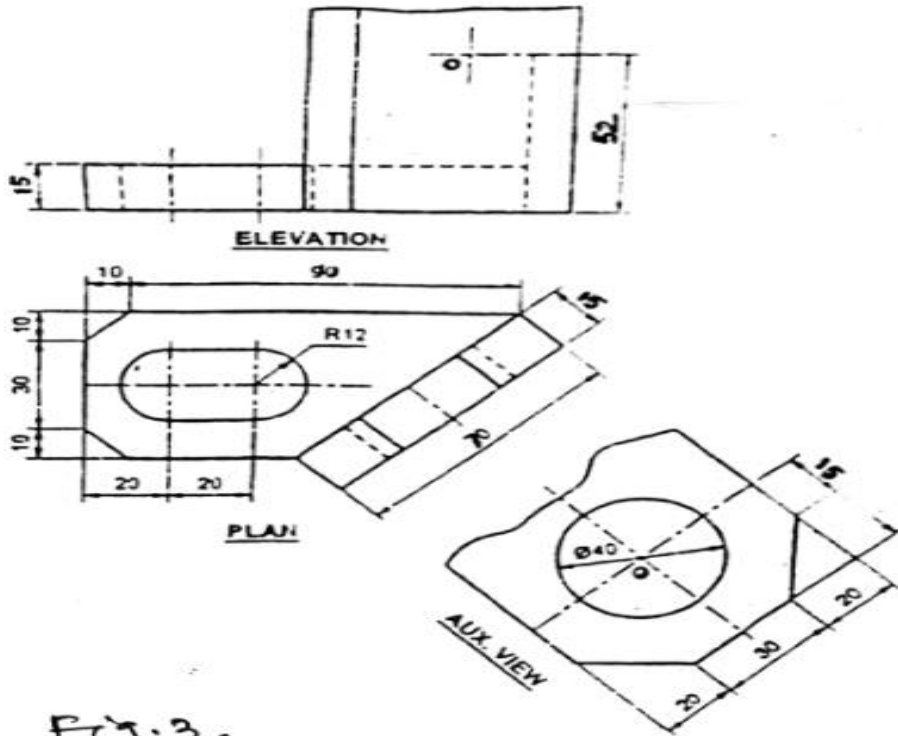
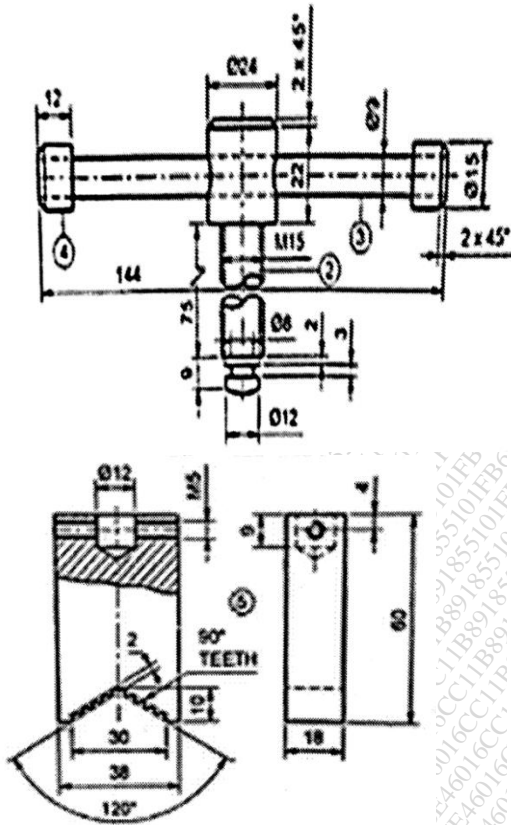


Fig. 3.

Section B

- Q.4 Solve any five questions from the following:
- a) Draw the conventions of following features: 03
 - i) External threads
 - ii) Diamond knurling
 - iii) Long Circular pipe with break
 - b) Draw the profile of Buttress thread showing the designing dimensions. 03
 - c) Expansion pipe joint. 03
 - d) Give the symbols of following welded joint. 03
 - i) Single Bevel Butt joint
 - ii) Plug or slot weld joint
 - ii) Single V-butt joint
 - e) Single riveted double strap butt joint. 03
 - f) Give surface roughness values and symbol for: 03
 - i) N1
 - ii) N4
 - iii) N9

Q.5 Figure 4 shows details of Pipe vice and the part list. Assemble all the parts and draw; 25
 i) Assembled Front view ii) Top view



PART NO.	PART NAME	METL.	QTY.
1	HOUSING	C.I	1
2	HANDLE SCREW	M.S	1
3	HANDLE BAR	M.S	1
4	HANDLE BAR BUSH	M.S	2
5	JAW	C.I	1
6	SET SCREW	M.S	2

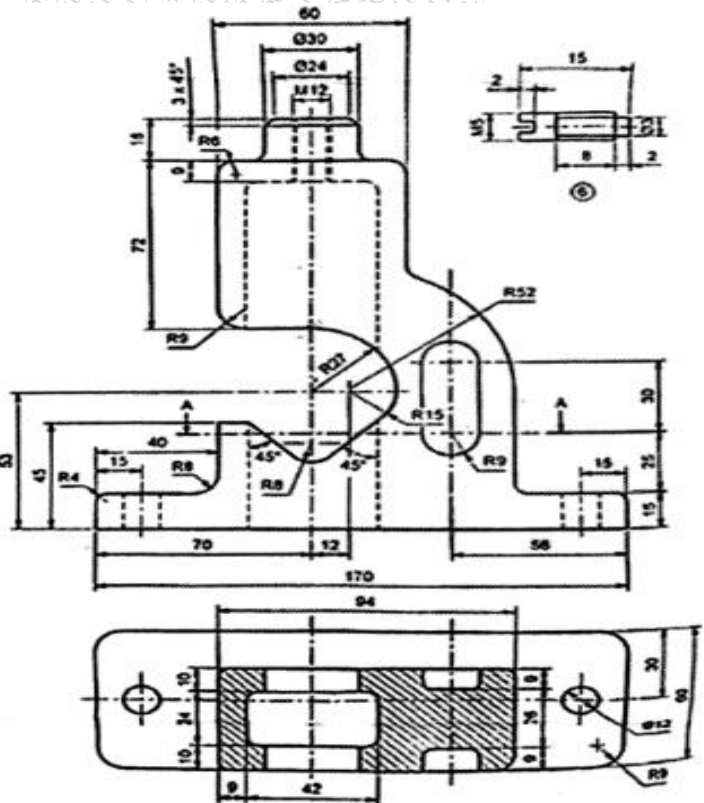
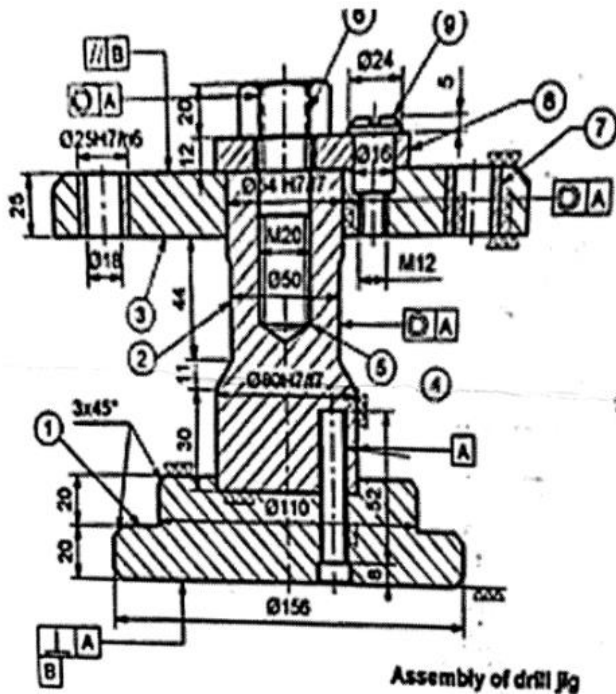


Figure 4

OR

Figure 5 shows assembly of Drill jig along with part list. Draw the details in front view and top view. 25



FIT CHART

25H7/n6	=TRANSITION FIT
57H7/17	=CLEARANCE FIT
60H7/17	= CLEARANCE FIT

PART LIST

P.NO	PART NAME	MELT	QTY.
1	BASE PLATE	C.I	1
2	STEM	M.S.	1
3	JIG PLATE	C.I	1
4	SCREW	M.S.	3
5	STUD	M.S.	1
6	NUT	M.S.	1
7	BUSH	STEEL	6
8	WASHER	M.S.	1
9	SCREW	M.S.	1

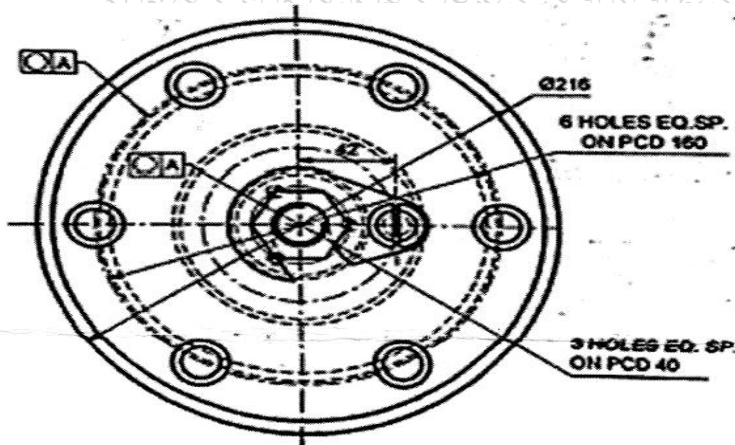


Figure 5