

UNIVERSITY OF PUNE
[4361]-6
F. E. (Semester-I) Examination-2013
Engineering Graphics-I
(2008 Pattern)

[Total No. of Questions : 12]
[Time: 4 Hours]

[Total No. of Printed Pages :7]
[Max. Marks: 100]

Instructions :

- (1) Answer **one** question from each unit. Answer **three** questions from section-I and **three** sections from section-II.*
- (2) Answers to the **two sections** should be drawn on **separate drawing-sheet**.*
- (3) Use only half imperial size drawing papers as answer sheets.*
- (4) Assume suitable data if necessary and retain all construction lines*

SECTION-I
UNIT-II: ENGINEERING CURVES

Q1.

- a) Draw an ellipse by rectangular method, if the major and minor axes are 100 mm and 60mm respectively. [8]
- b) Draw an Archimedian spiral for one convolution, given that the radius is 60 mm. [7]

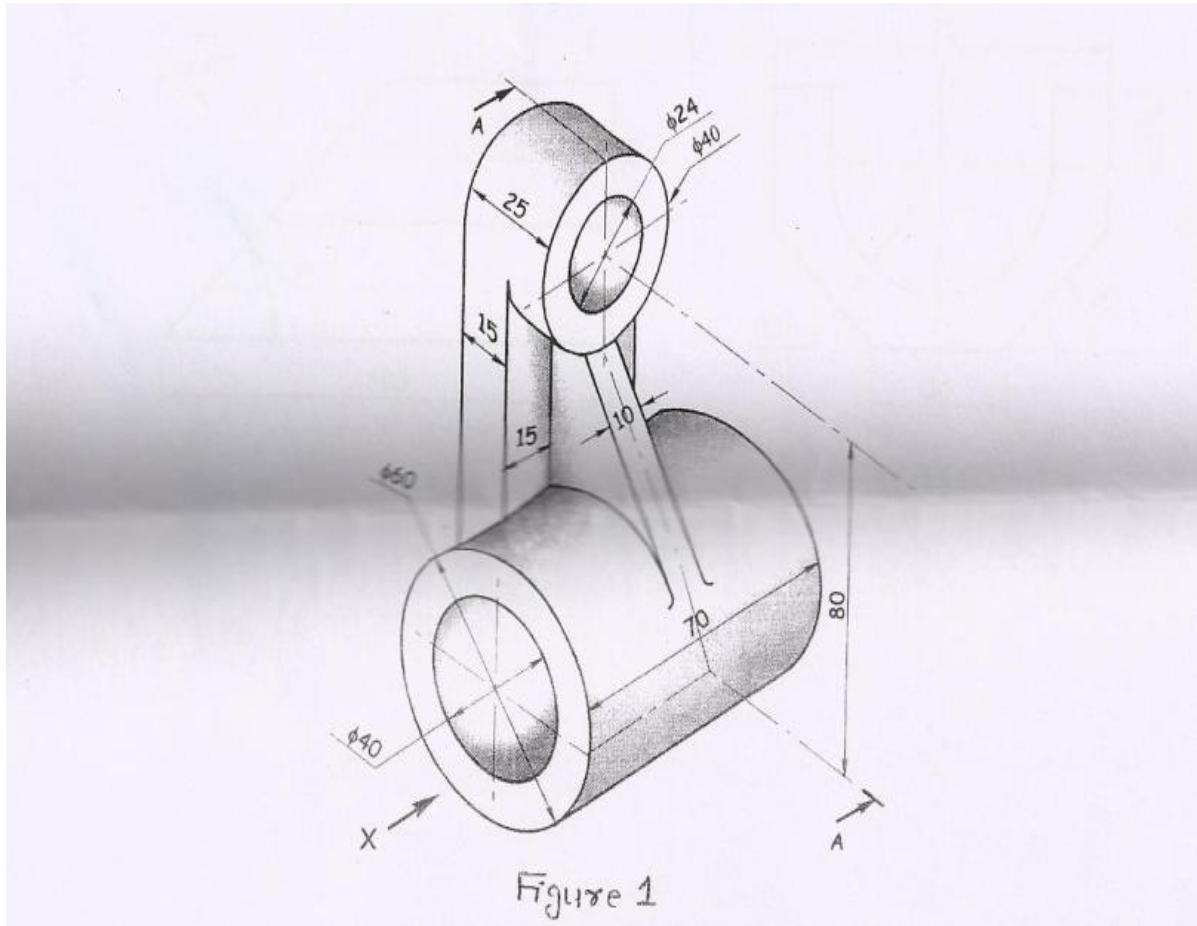
OR

Q2.

- a) Construct a hyperbola by focus-directrix method, if the distance of focus from the directrix is 60 mm and eccentricity $3/2$. [8]
- b) Draw a cycloid of rolling circle of diameter 60 mm. [7]

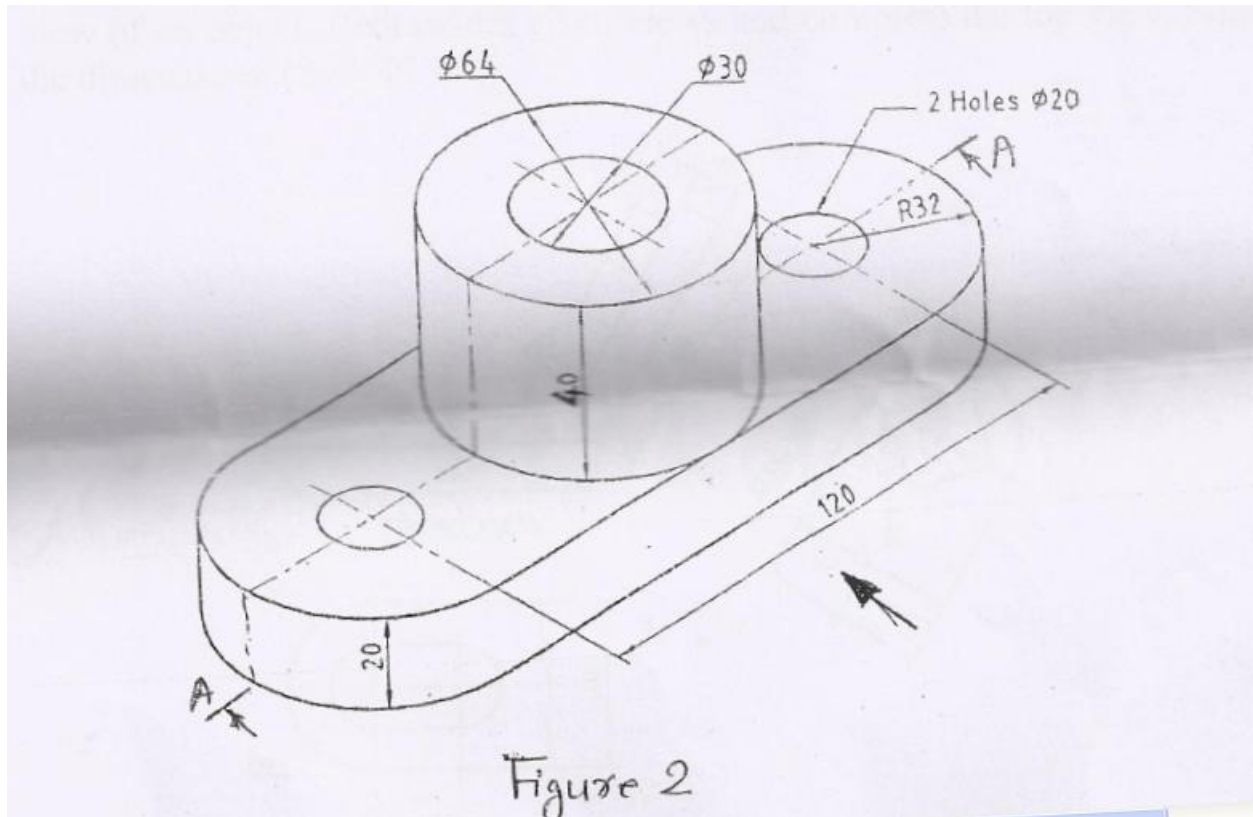
UNIT-III: ORTHOGRAPHIC PROJECTIONS

Q3. Figure 1 shows a pictorial view of an object. Draw sectional elevation along section A-A, plan and right side view. Give the dimensions. [6+6+6+2] [20]



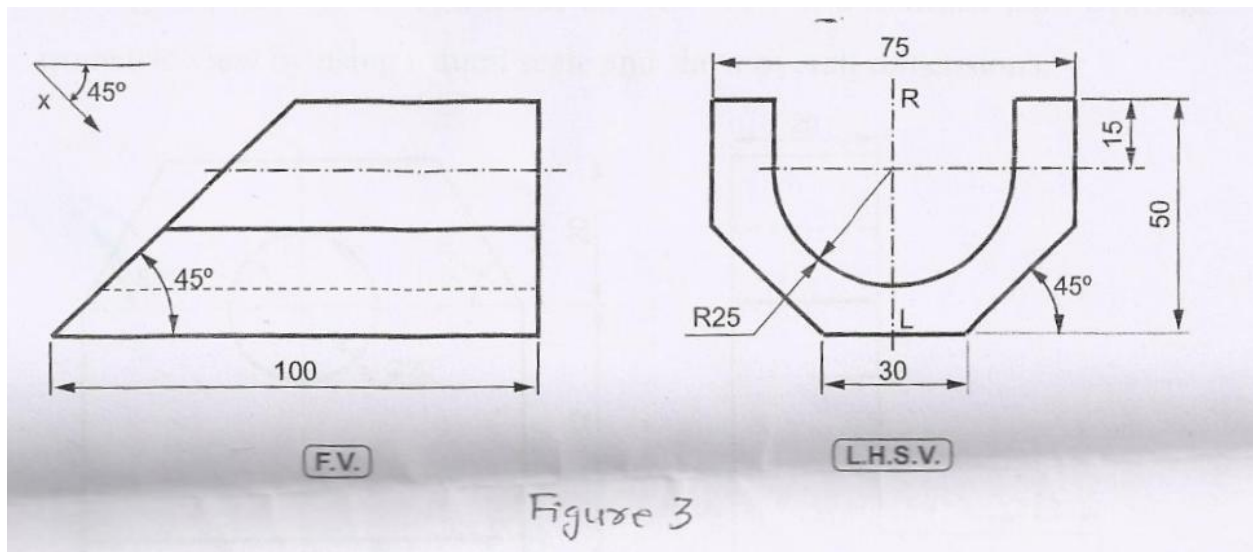
OR

Q4. Figure 2 shows a pictorial view of a bracket. Draw sectional elevation along sectional A-A, plan and left side view. Give the dimensions. [6+6+6+2] [20]



UNIT-IV: AUXILIARY PROJECTIONS

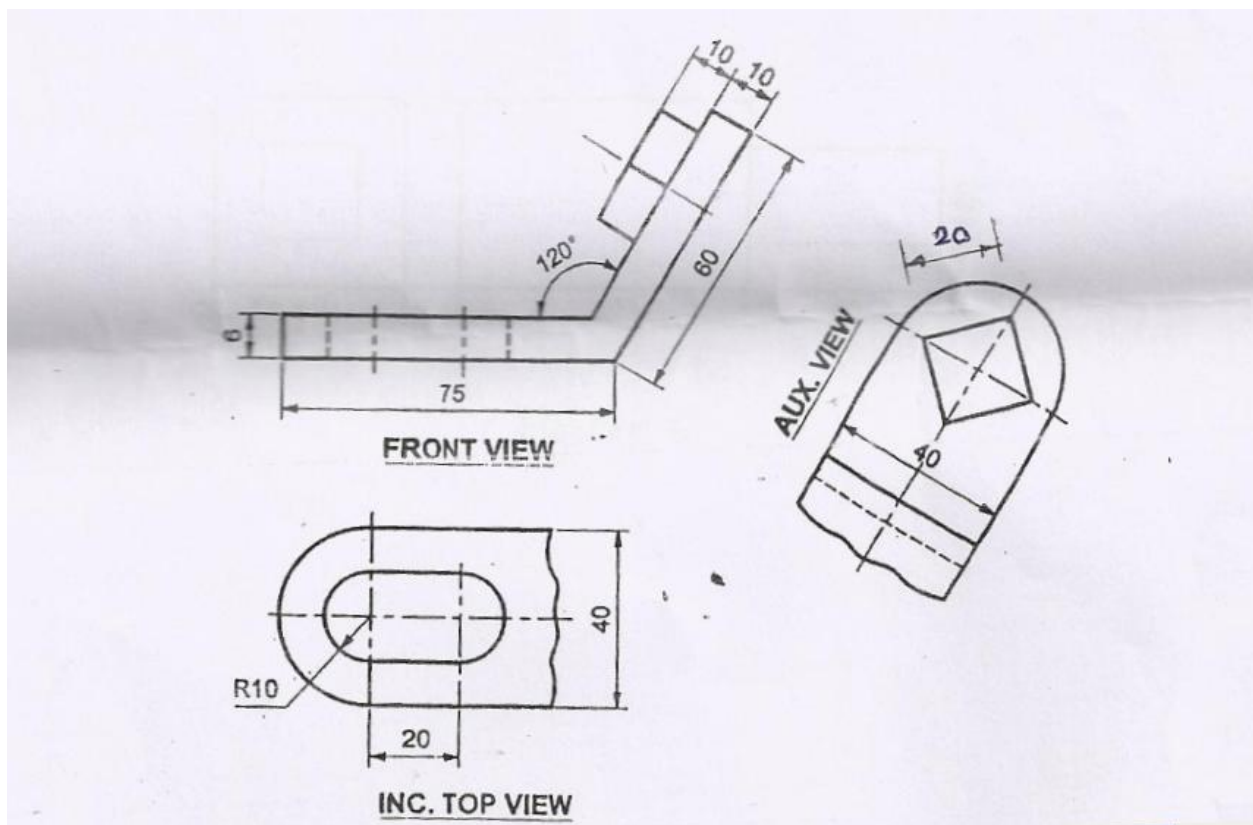
Q5. Figure 3 shows front view and left side view of an object. Redraw the given view and draw an auxiliary view in the direction of X as shown in figure. Show the dimensions. [5+8+2]. [15]



OR

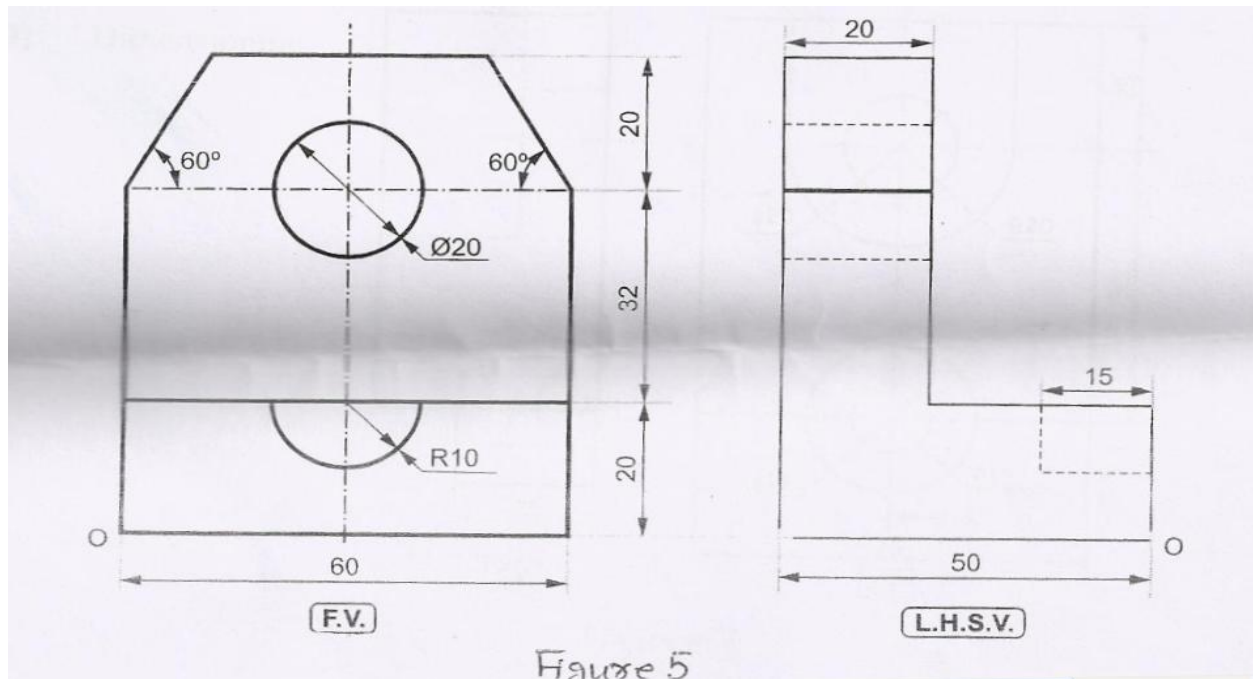
Q6. Figure 4 show front view, incomplete top view and incomplete auxiliary view of an object. Redraw the given views and complete the top view. Show the dimension. [5+8+2].

[15]



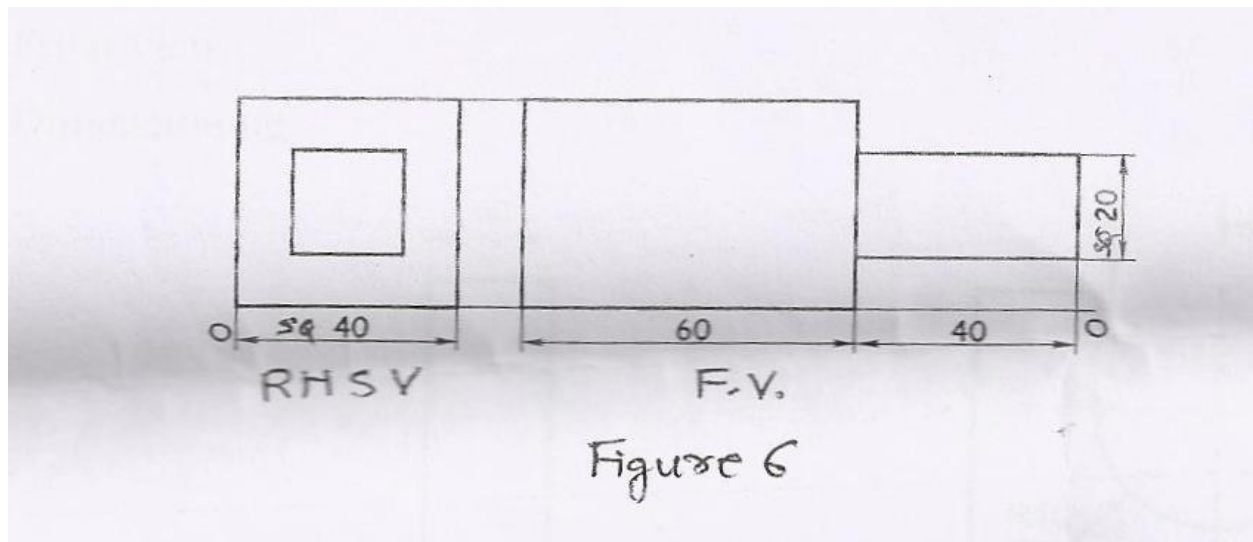
SECTION-II
UNIT-V: ISOMETRIC.

Q7. The figure 5 shows front view and left end view of a machine part. Draw its isometric view by using natural scale and show overall dimensions. [20]



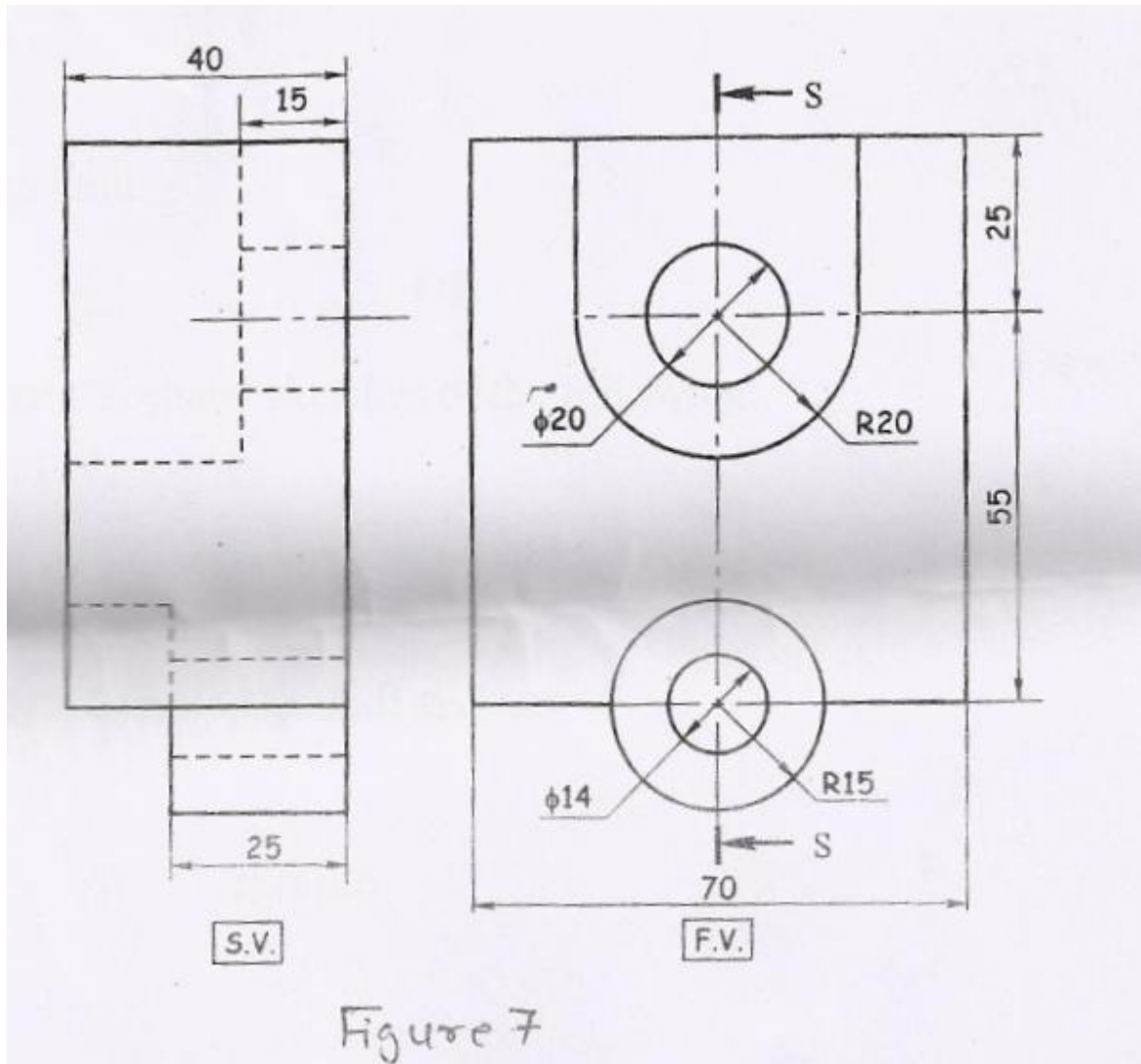
OR

Q8. The figure 6 shows front view and right hand side view of machine part. Draw its isometric projections by using isometric scale. [20]



UNIT-VI: MISSING VIEWS

- Q9. The figure 7 shows front view and side view of a machine part. Draw [20]
a) Sectional side view, along section S-S [7]
b) Top view [7]
c) Front view [3]
d) Dimensioning [3]



OR

Q10. The figure 8 shows front view and right side view of a machine part.

Draw

[20]

a) Sectional side view, along section A-A

[7]

b) Top view

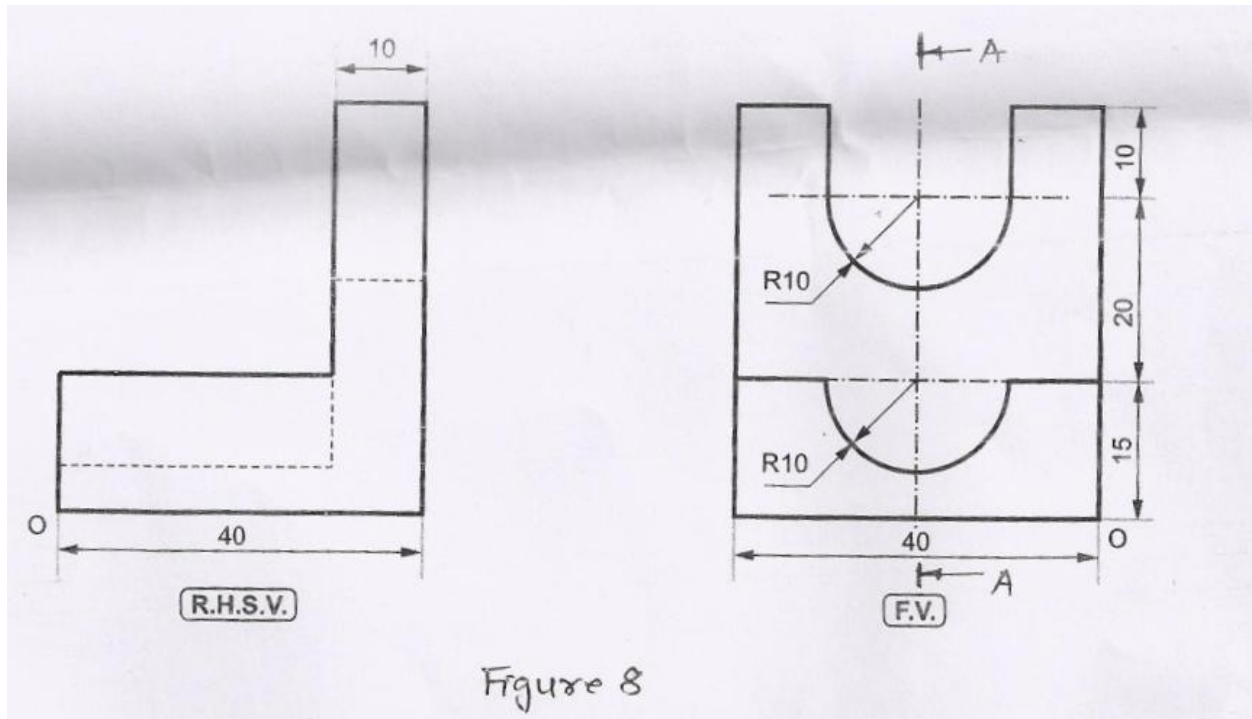
[7]

c) Front view

[3]

d) Dimensioning

[3]



UNIT-VII: FREE HAND SKETCHES

Q11. Draw freehand sketches of the following:

[10]

A) Square thread

[3]

B) Leaf spring

[3]

C) Single riveted lap joint

[4]

OR

Q12. Draw proportionate freehand sketches of the following:

[10]

a) Square nut

[3]

b) Lifting eye bolt

[3]

c) Gib-headed Key assembled in shaft and hub

[4]