SUBJECT : TECHNICAL DRAWING APPLICATIONS   CLASS : X

TIME : 3 HOURS   MARKS : 100

Instructions:

     o You must attempt three questions from Section A and two questions from Section B.

     o Each Section must be answered on separate paper.

     o All construction lines must be shown.

     o All dimensions are in mm.

SECTION A (48 Marks)   (Attempt any 3)

Q.1   A line of 2cm in a drawing represents 5metre. Construct a Diagonal scale   (16)
to measure upto 40 metre showing meter and decimeter.
Using the above scale construct a triangle ABC having base BC = 20.8m,
AB = 15.3m, AC = 30m. Costruct a parallelogram with one angle = 60° equal
in area to the triangle.

Q.2 a)   Refer Figure (1).Draw a continuous arc passing through the points A,B,C,D   (8)
And find the length of the arc ABC by geometrical means .
Measure and record its length.
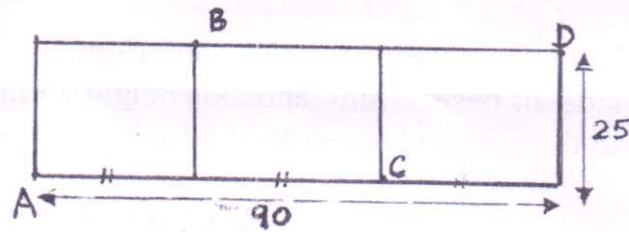

FIGURE [1]

     b)   Construct a Parabola having Base length = 150mm and Axis height 90mm   (8)
using OBLONG Method .

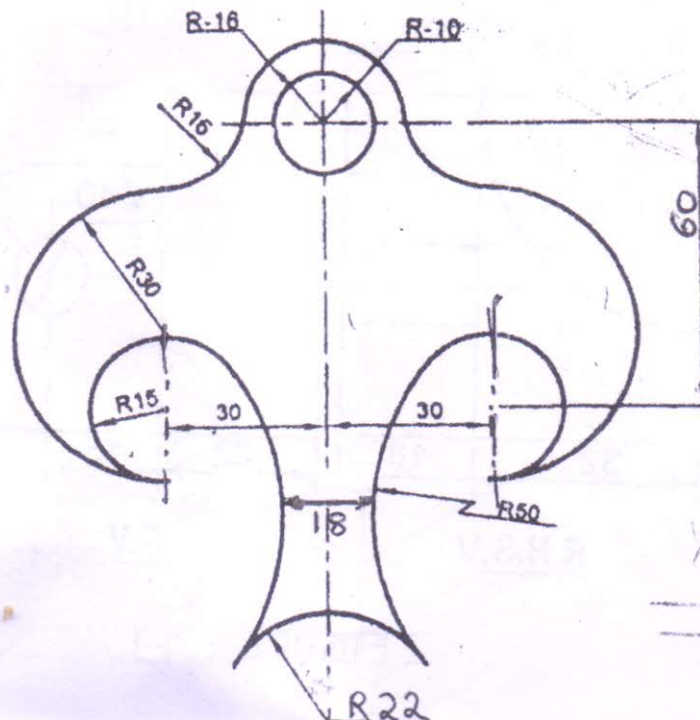Q.3   Refer Figure (2) . Copy the given template (Insert any six dimensions) .   (16)

FIGURE [2]

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Q.4　Draw the oblique view of the orthographic projection given in Figure (3)　(16)
with　receding axis at an angle of 45° to the horizontal. Do not insert any
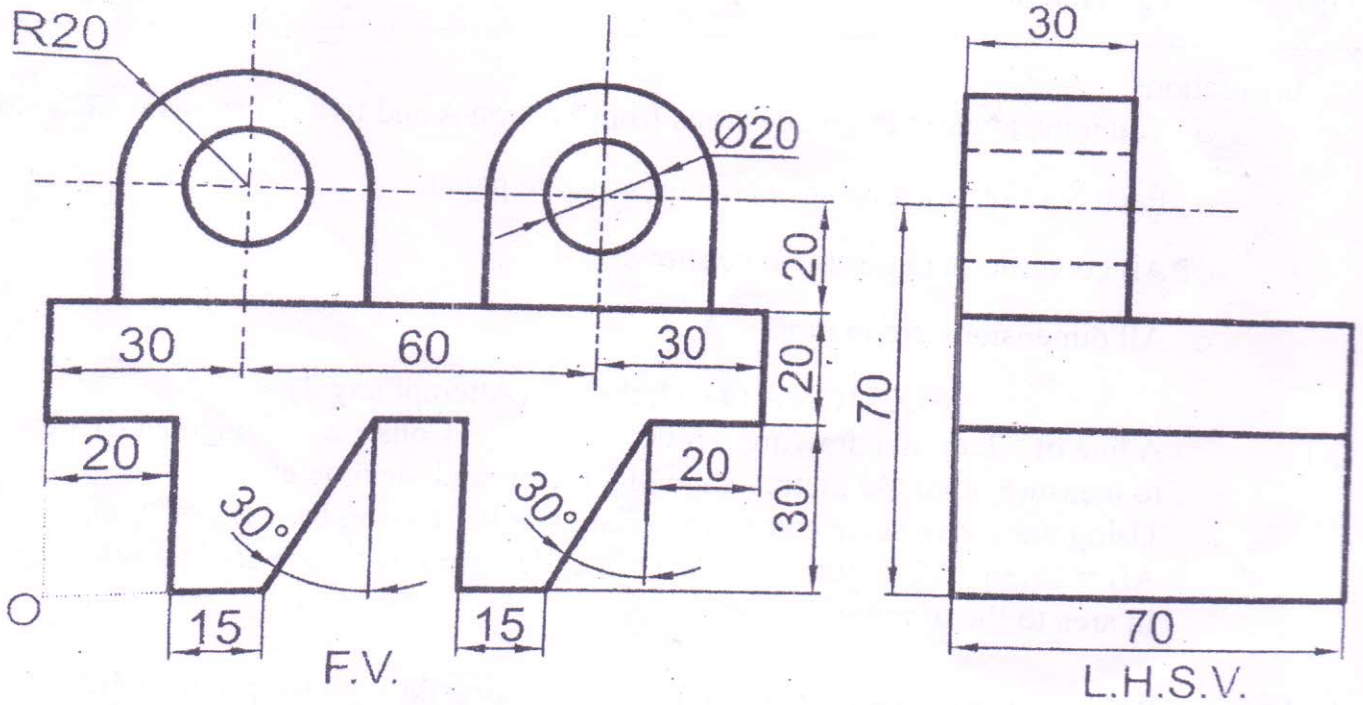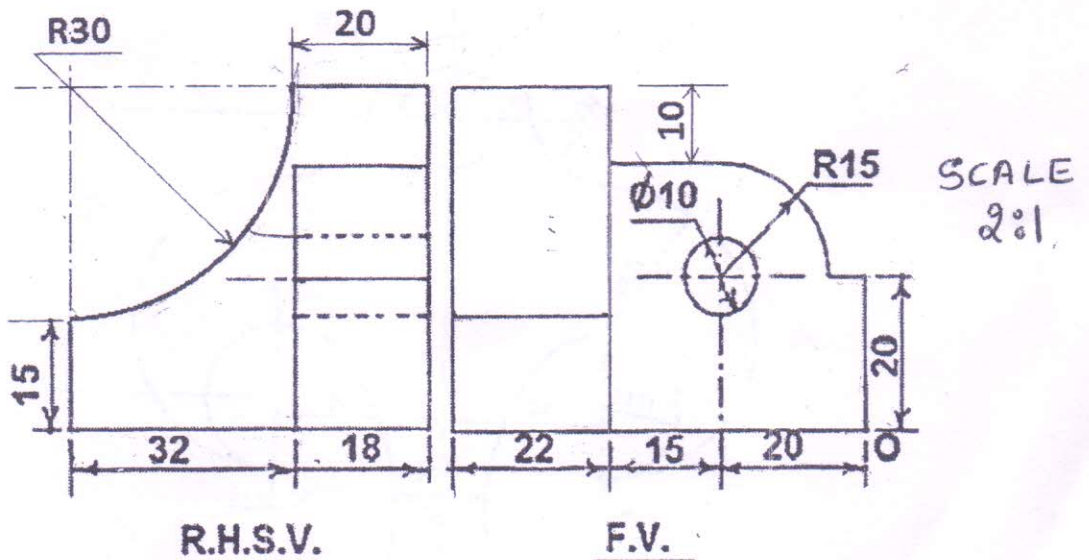dimensions.

FIGURE [3]

Q.5　Draw front view , top view and right hand side view of a square prism of　(16)
side of base 35mm and axis height 75mm resting with its axis inclined at 60°
to the　and one side of base is inclined at 30° to the V.P .(USE THIRD ANGLE)
↳ Ground Line

SECTION B (52 Marks)
(Attempt any two questions)

Q 6　Refer Figure (4). It shows front and side view of an object. Draw the　(26)
isometric view of the of the object .Use scale 2:1.Insert length,width and height.

FIGURE [4]

Q.7   Refer Figure (5). It shows two orthographic views in Third angle method. Draw   (26)

   a) Sectional front view along A-A   (8)

   b) Sectional Top View along B-B   (8)

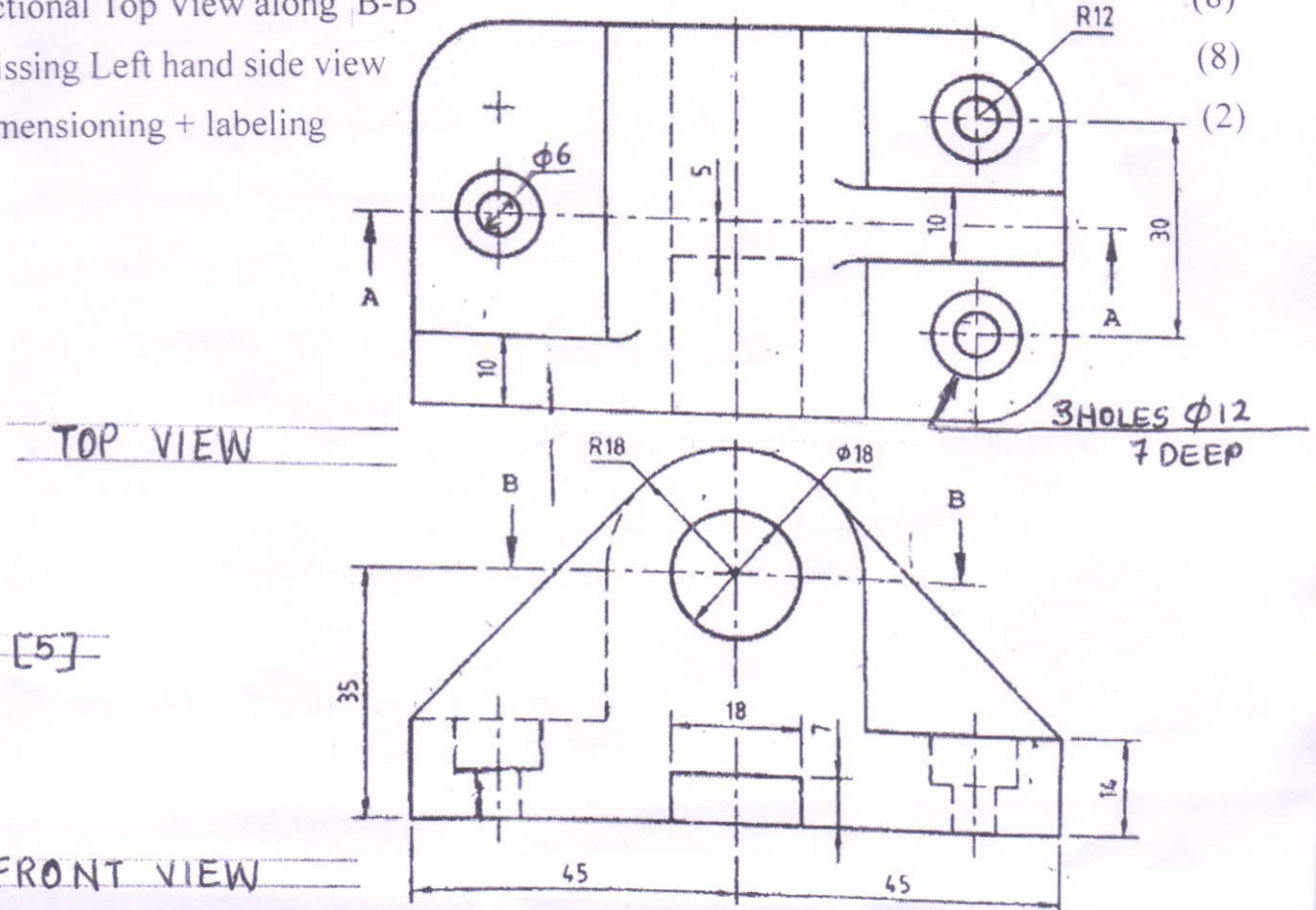   c) Missing Left hand side view   (8)

   d) Dimensioning + labeling   (2)

TOP VIEW

FIGURE [5]

FRONT VIEW

Q. 8.   Refer Figure(6). It shows isometric view of a pivot block. Draw   (26)

   a) Sectional front view along A-A   (8)

   b) Top View   (8)

   c) Left hand side view   (8)
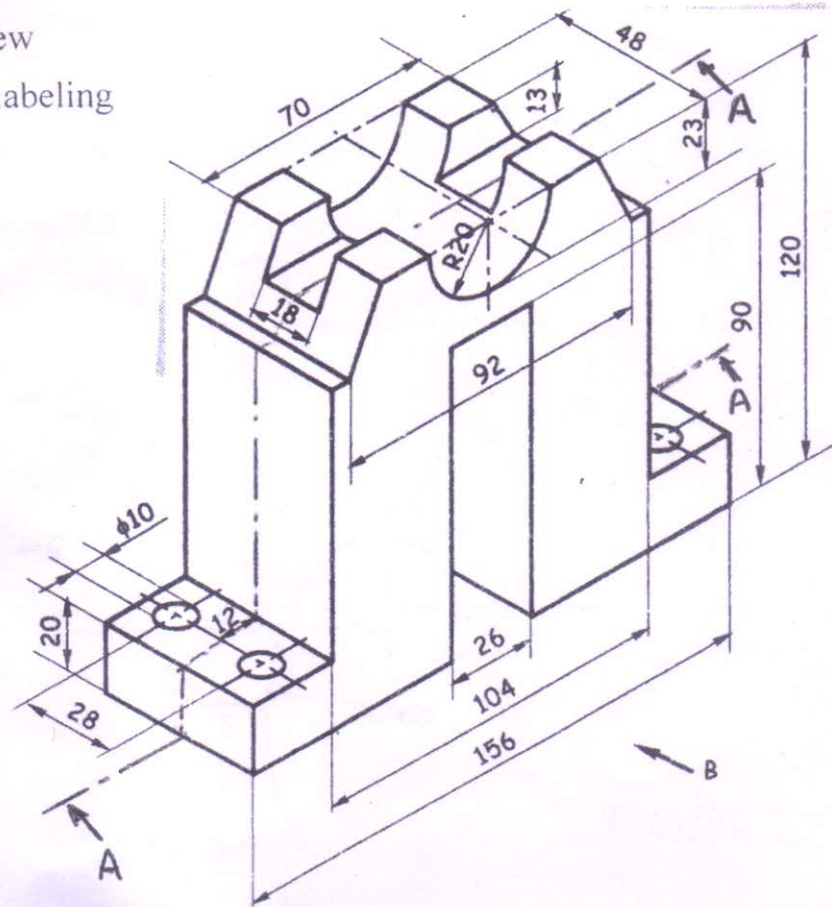
   d) Dimensioning + labeling   (2)

FIGURE [6]

ALL THE BEST