GREENLAWNS HIGH SCHOOL

PRELIMINARY EXAMINATION YEAR 2017-18

SUBJECT : TECHNICAL DRAWING APPLICATIONS CLASS : X

TIME : 3 HOURS MARKS : 100

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Instructions:

- You must attempt three questions from Section A and two questions from Section B.
- Each Section must be answered on separate sheet.
- All construction lines must be shown.
- All dimensions are in mm.
- The intended marks for questions are given in brackets.

## SECTION A (48 Marks)

(Attempt any 3)

Q.1 Construct a plain scale long enough to measure upto 2metre. (16)
Given R.F = 3:40. Taking measurements from this scale prepare a scale diagram of Ellipse. Given Major axis = 1.8metre, Minor axis = 1.2metre.

Q.2 a) Draw Front view , Top view and Development of a right cylinder resting on its base on ground . Given base radius = 30mm and axis height 70mm. (8)

b) Refer Figure (1) below. Draw the Auxiliary Front View of a hexagonal prism when auxiliary plane $X^1Y^1$ is inclined at 60° to V.P. and parallel to H.P. Side of base is 30mm , axis height is 60mm . (Third angle method). (8)

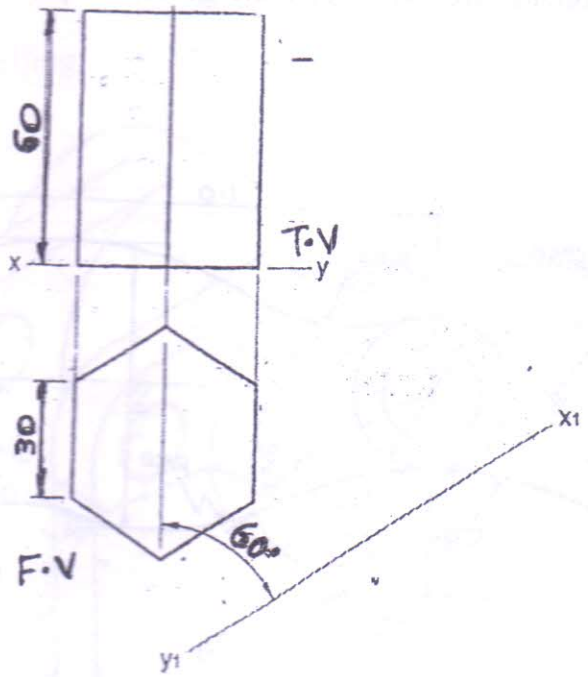


FIGURE [1]

Q.3 a) Draw the Front view and Top view of a cone with its axis inclined at 30° to H.P. and parallel to V.P. Base radii of the cone is 25mm , axis height is 65mm.(Use first angle method). (10)

b) Draw a regular pentagon inside a circle of radii 60mm. Mention the side of the pentagon. (Use of protractor not allowed) (6)

Q.4 Draw the oblique view of the orthographic projection given in Figure (2) with receding axis at an angle of 45° to the horizontal. Insert length, width and height. (16)

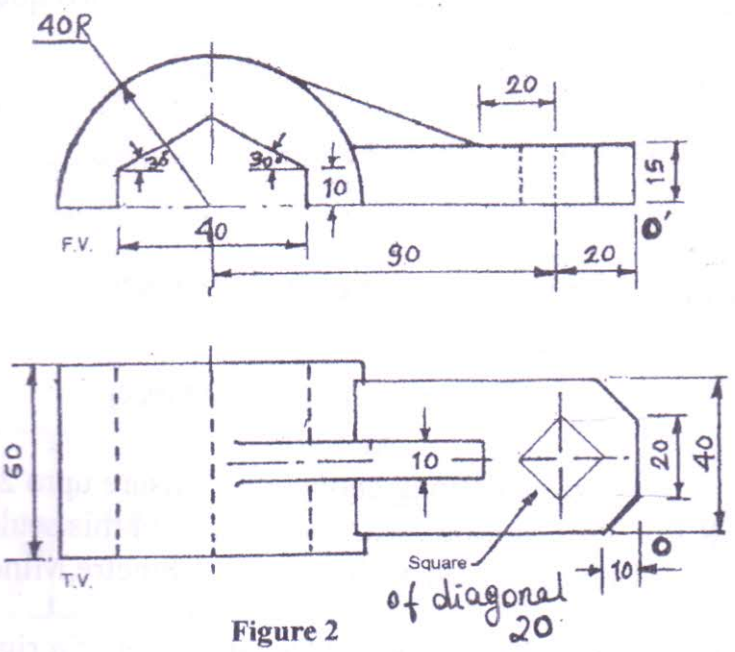


**Figure 2**

Q.5 Refer Figure (3) . Copy the given template ( Insert any six dimensions) . (16)

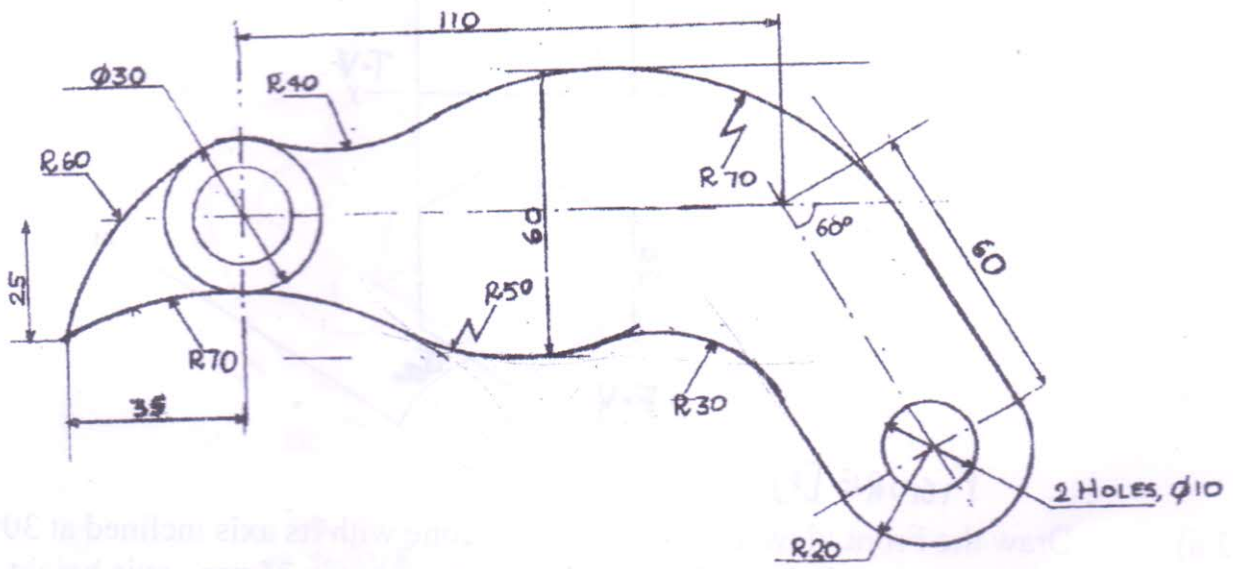


FIGURE (3)

SECTION B (52 Marks)

(Attempt any two questions)

Q.6 Refer Figure(4). Copy the given Isometric view. Insert length,width and height. (26)

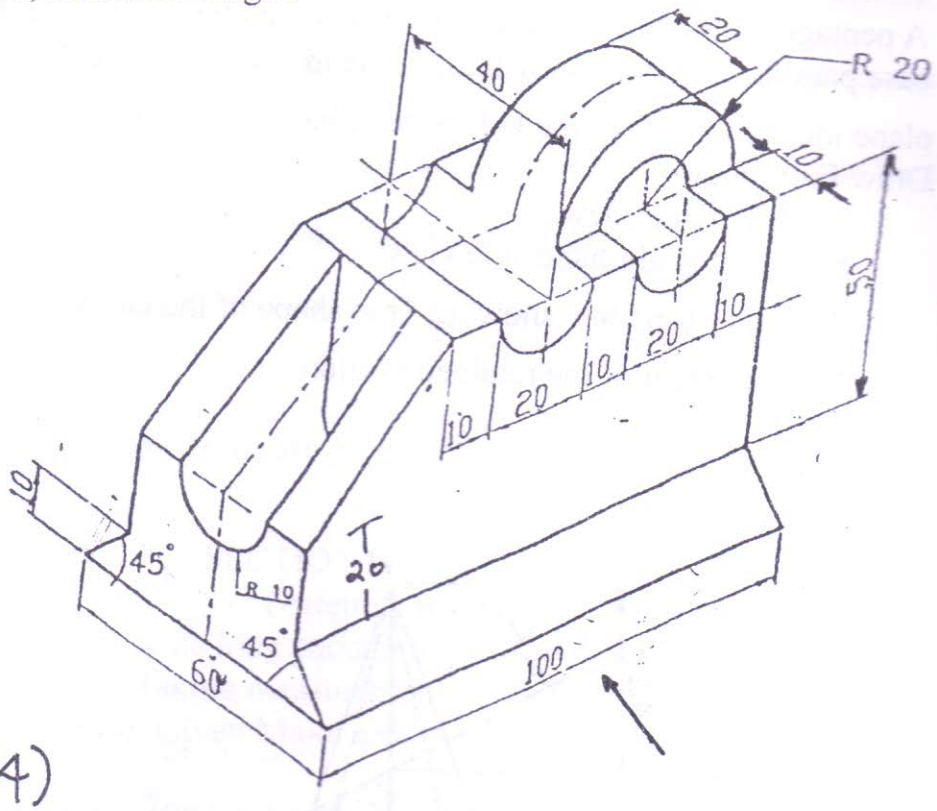


FIGURE (4)

Q.7. Refer Figure (5) . Draw using First Angle Method of projection (26)

a) Sectional Front view along AB (8)

b) Sectional Top view along MN (8)

c) Left Hand side view. (8)

d) Dimensioning and Labelling (2)

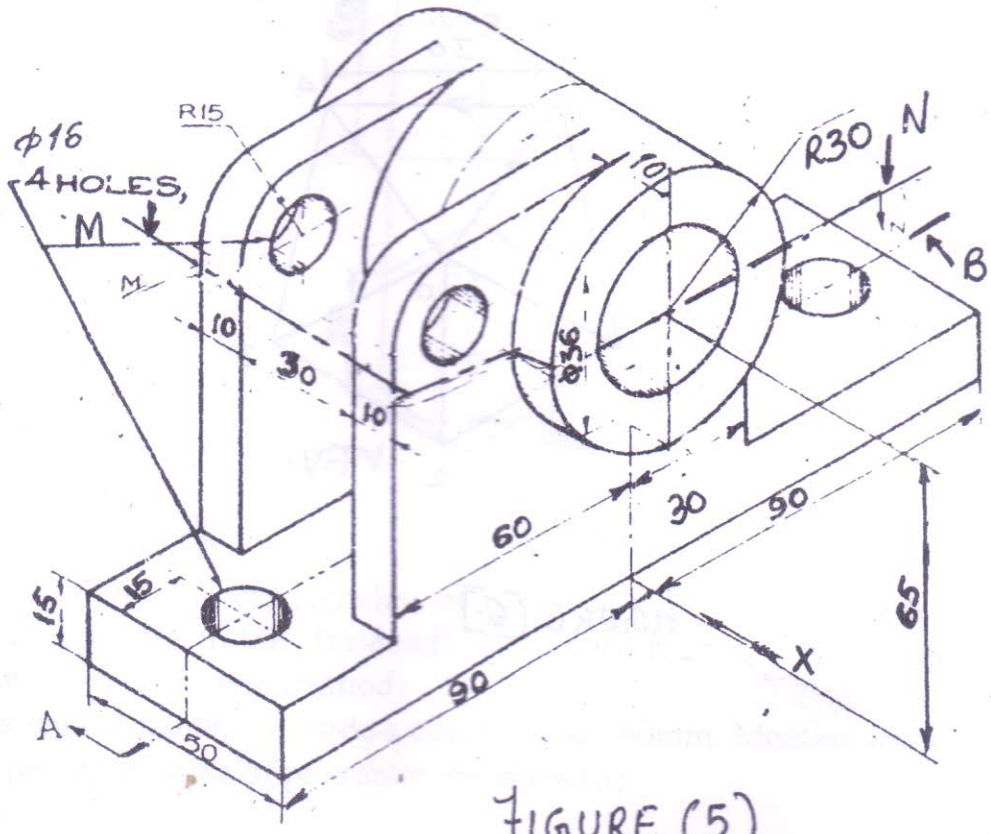


FIGURE (5)

Q. 8. A pentagonal Pyramid is resting on H.P. on its base with one edge of the base parallel to V.P. As shown in Figure (6) below. It is cut by a cutting plane inclined at 45° to the H.P. Side of base is 30mm Axis height is 70 mm . (26)

Draw Front view (2)

Sectional Top view (5)

Sectional Right hand side view (5)

Auxiliary top view showing True shape of the cut portion (8)

Development of the retained portion (6)

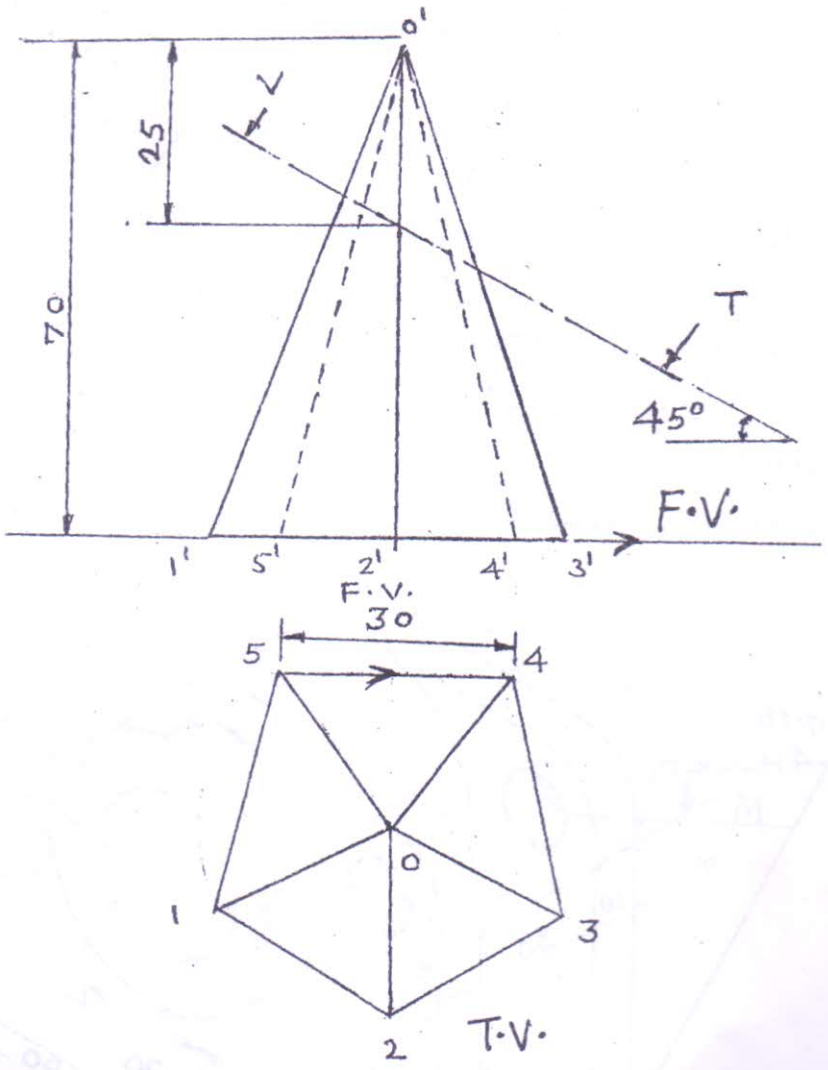


FIGURE [6]