

GREENLAWNS HIGH SCHOOL  
FINAL EXAMINATION YEAR 2016-2017

13

SUBJECT : TECHNICAL DRAWING APPLICATIONS  
TIME : 3 HOURS

CLASS : IX  
MARKS : 100

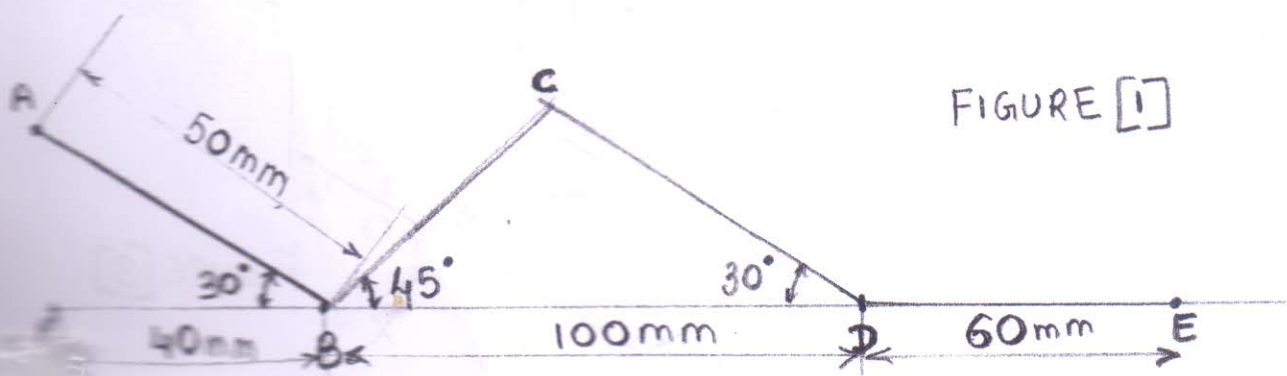
Instructions:

- You must attempt three questions from Section A and two questions from Section B.
- Each Section must be answered on separate paper.
- 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 a) Construct the figure with given dimensions and draw a continuous arc passing through the points ABCDE. Refer Figure (1) below (12)  
 $AB = 50\text{mm}$ ,  $BD = 100\text{mm}$ ,  $DE = 60\text{mm}$ .  $\angle BCD = 45^\circ$ ,  $\angle CDB = 30^\circ$ ,  $\angle ABP = 30^\circ$
- b) Find the circumference of the circle of diameter 70mm. Measure and state its length. (4)
- Q.2 a) Construct an Ellipse having Major axis 110mm and Minor axis 60mm. Use CONCENTRIC CIRCLE method. (10)
- b) Construct an Octagon whose distance across Flats is 90mm. Mention the side of the octagon. Draw four circles inside the octagon such that each circle touches one side of the octagon and two other circles. (6)
- Q.3 a) Construct a parabola having Base length 90mm and axis height 65mm. Use OBLONG method. (10)
- b) Draw two circles of radii 55mm each with their centres 130mm apart. construct Transverse Common Tangent to the the two circles. Mention their lengths. (6)
- Q.4a) Draw a circle of radii 65mm. Inscribe a pentagon inside the circle. Draw five circles inside the pentagon such that each circle touches two sides of the pentagon and two other circles. (10)
- b) Draw a square of diagonal 40mm. Draw four circles outside the square such that each circle touches one side of the square and two other circles. (6)



p.t.o

Q.5 Refer Figure (2). It shows one view of a suspension. Copy the given figure showing clearly all constructional details. (16)

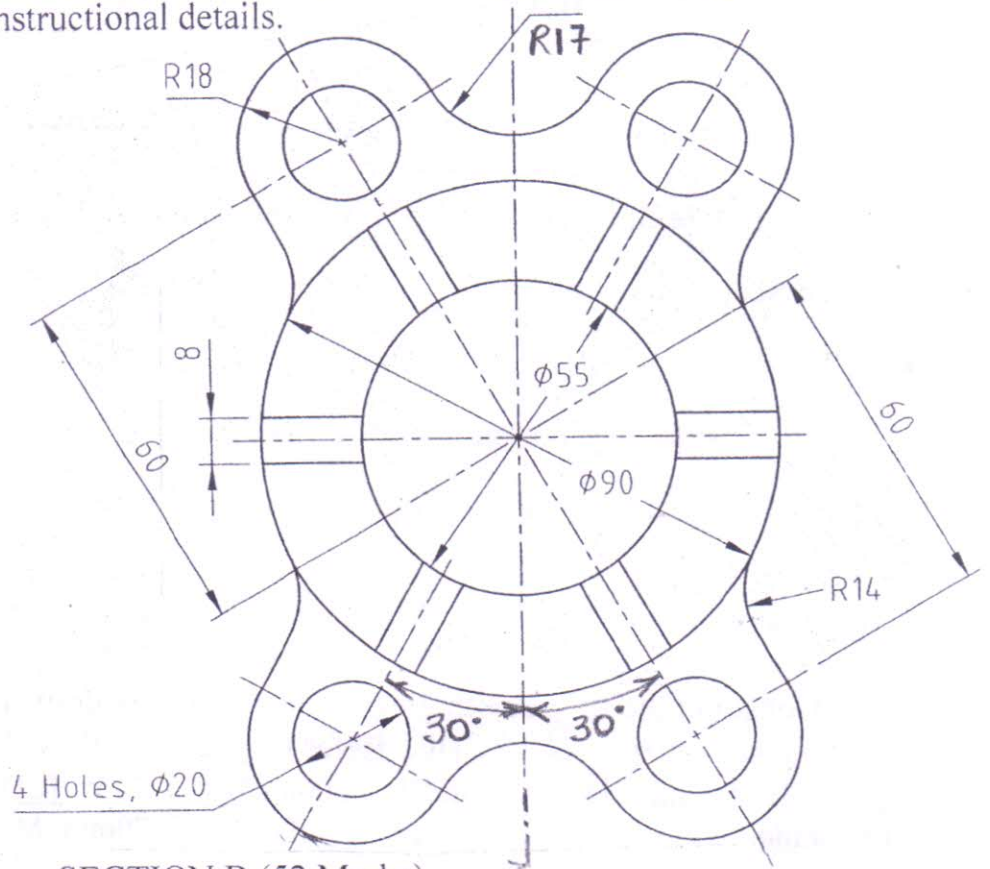
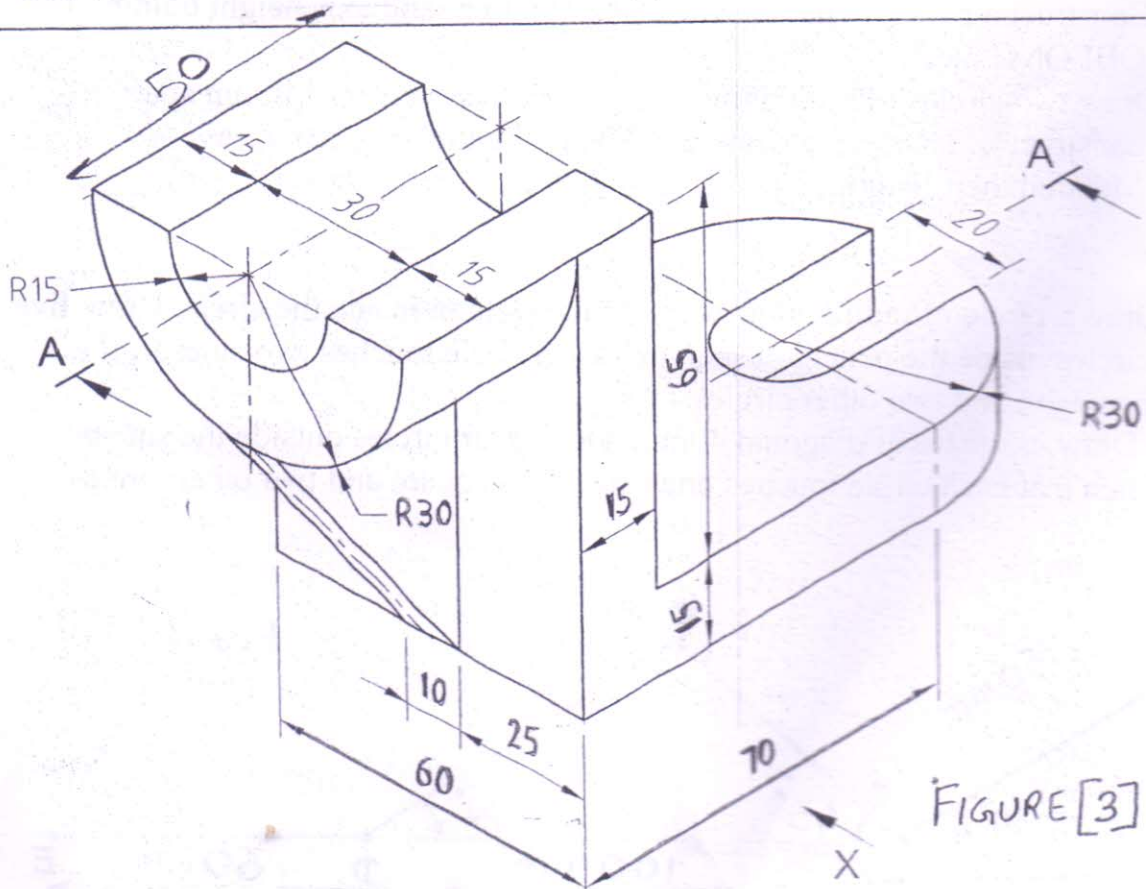


FIGURE [2]

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

Q.6. Refer Figure (3). Draw using FIRST ANGLE METHOD OF PROJECTION (26)

- |                         |     |
|-------------------------|-----|
| Front view              | (8) |
| Top View                | (8) |
| Left hand side view     | (8) |
| Dimension and Labelling | (2) |



Q7. Refer Figure (4). It shows Isometric view of an object. Copy the given figure. Insert Length, Width and Height Front view . (26)

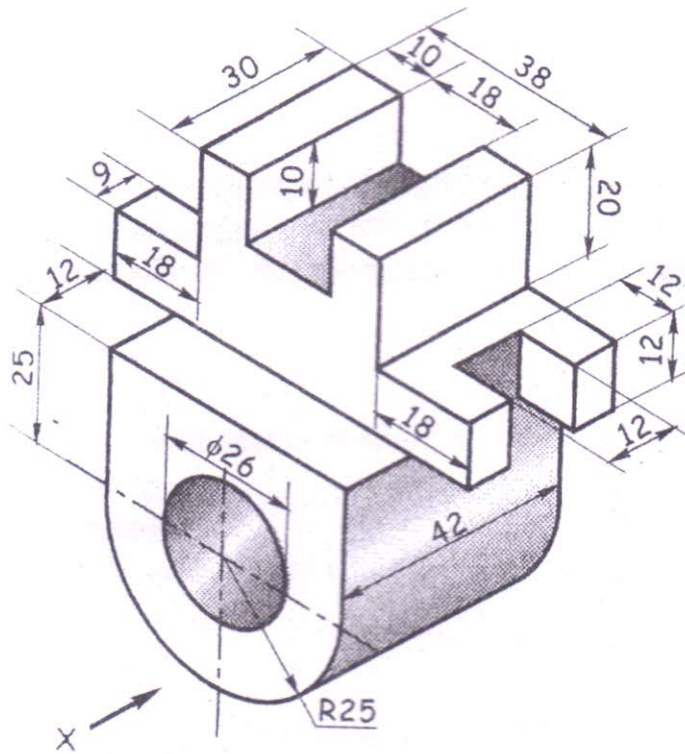


FIGURE [4]

Q8. Refer Figure (5). It shows Front view and Top view of an object. Draw the Isometric view of the object taking 'o' as the origin . Insert Length, Width and Height. (26)

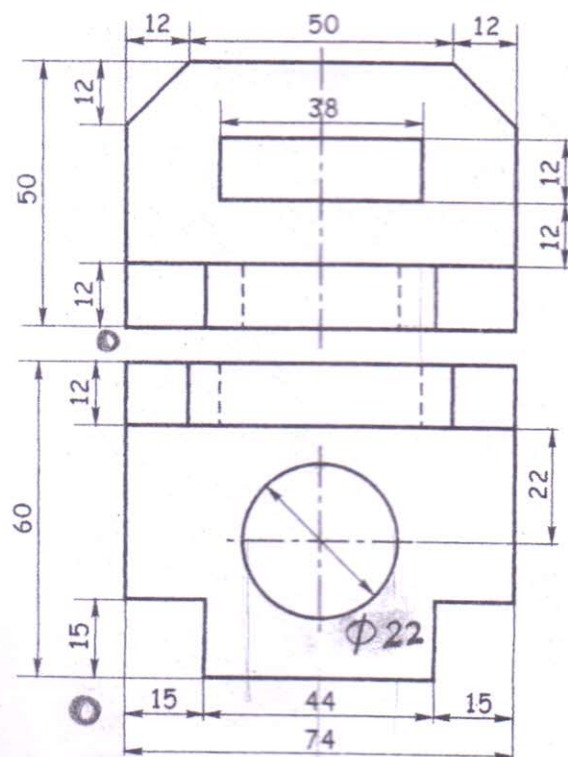


FIGURE [5]