

GREENLAWNS HIGH SCHOOL  
TERMINAL EXAMINATION YEAR 2019 - 2020

SUBJECT : TECHNICAL DRAWING APPLICATIONS  
TIME : 3 HOURS

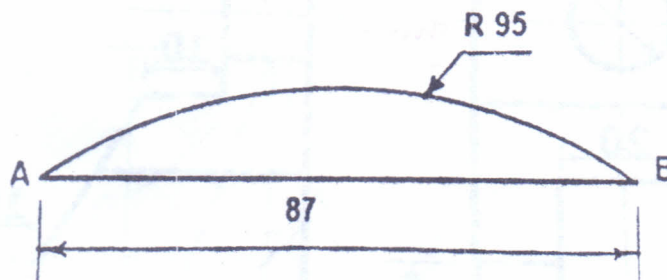
CLASS : X  
MARKS : 100

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)

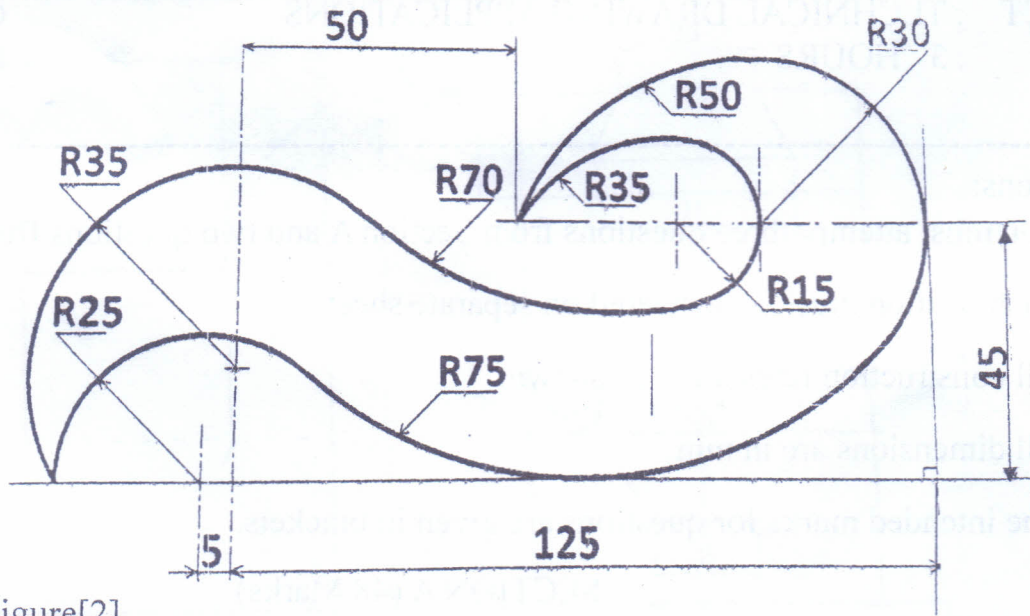
- Q.1 Construct a suitable scale in which 5cm line represents 2m. Use it to draw two tangents to a circle of radius 2.65m from a point 5.08m away from its center. (16)
- Q.2a) Draw the Elevation, Plan and Lateral Development of a Hexagonal pyramid with its axis perpendicular to H.P.(Horizontal plane) and parallel to V.P. (Vertical Plane). One side of its base is inclined at  $45^\circ$  to V.P. Given side of Base = 30mm, Axis height = 65mm. (Use THIRD angle method). (10)
- b) Refer Figure [1]. An arc of radius 95mm is passing through points A and B.  $AB = 87$ mm. Copy the given Figure. Find the length of the given arc by Geometrical means. (6)



Figure[1]

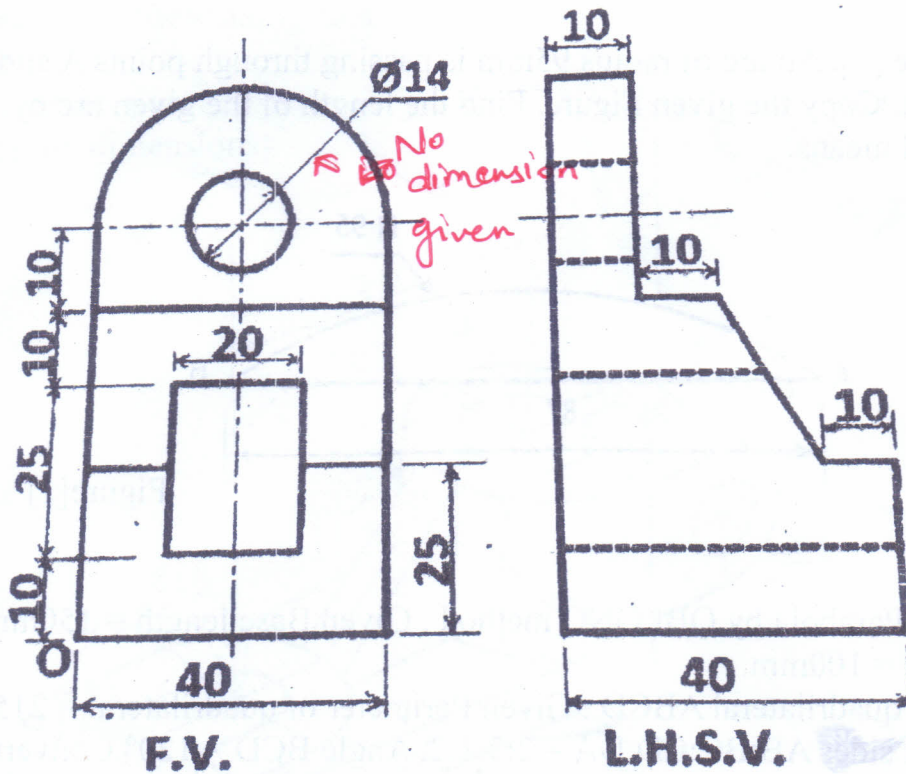
- Q.3a) Construct a Parabola by OBLONG method. Given Base length = 150mm and Axis height = 100mm. (10)
- b) Construct a quadrilateral ABCD. Given Perimeter of quadrilateral = 215mm and ratio of sides  $AB:BC:CD:DA = 2:3:1:2$ , Angle  $BCD = 120^\circ$ . Convert it into an Isosceles triangle whose area is equal to area of quadrilateral. (6)

Q.4 Refer Figure (2) . Copy the given template ( Insert any six dimensions) . (16)



Figure[2]

Q.5 Refer Figure (3). It shows F.V and L.H.S.V of an object .Draw the oblique view when the receding axis is inclined at 45° to the horizontal. Use scale 2:1 Do not insert any dimensions. (16)



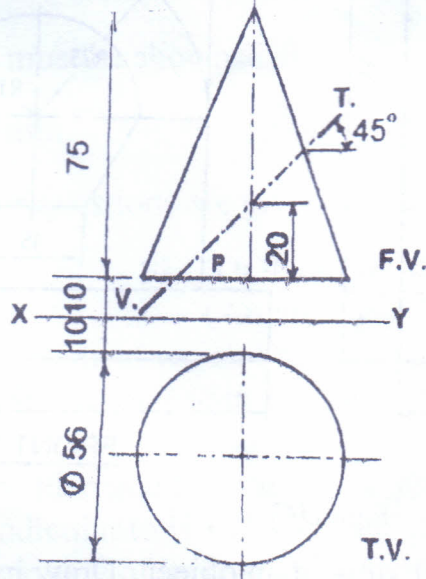
Figure[3]

SECTION B (52 Marks)

(Attempt any two questions)

Q.6a) Refer Figure(4).It shows F.V and T.V of a cone with its axis perpendicular to H.P and parallel to the V.P. in first angle method of projection. It is cut by a cutting plane inclined at  $45^\circ$  to the H.P. and perpendicular to the V.P. as shown in the figure. Draw the (18)

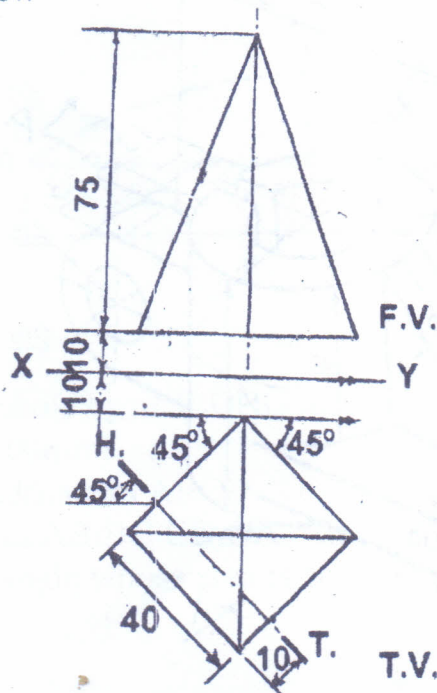
- i) Front View. (2)
- ii) Sectional Top View. (5)
- iii)Sectional Left Hand Side View. (5)
- iv)Lateral surface Development of the retained portion. (6)



Figure[4]

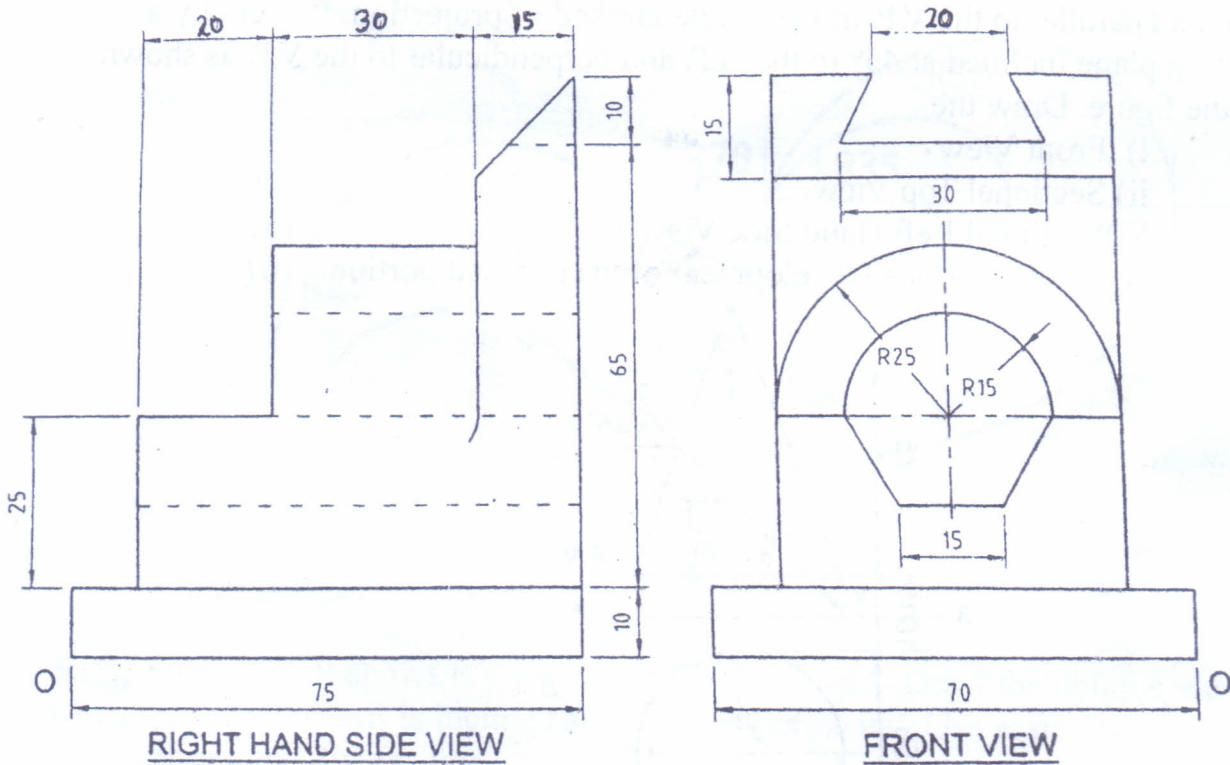
b) Refer Figure (5). It shows F.V and T.V of a square pyramid in the FIRST angle method of projection. It is cut by a cutting plane perpendicular to H.P. and inclined at  $45^\circ$  to V.P. as shown in the figure. Draw the (8)

- i)Sectional Front View. (6)
- ii)Top view. (2)



Figure[5]

- Q.7 Refer Figure (6). It shows the F.V and R.H.S.V of an object in FIRST angle method of projection. Draw its Isometric view. (Do not insert any dimensions). (26)



Figure[6]

- Q.8 Refer Figure(7). It shows a pictorial view of an object . Draw in First angle method of projection (26)
- a) Sectional Front View along A-A . (10)
  - b) Top View . (8)
  - c) Left hand side view . (8)
- (Insert any six dimensions)

