SC – 808

Seat No.	

Total No. of Pages : 6

First Year (B.Tech.) Examination, December - 2019

ENGINEERING GRAPHICS

Sub. Code : 71814

Day and Date : Saturday, 07 - 12 - 2019 **Total Marks : 70**

Time : 02.30 p.m. to 06.00 p.m.

Instructions :
1) **Solve any one from Q. 1 and Q. 2.**
2) **Solve any one from Q. 5 and Q. 6.**
3) **Assume suitable data if necessary.**
4) **Use both sides of drawing paper.**
5) **All dimensions are in mm.**

SECTION - I

Q1) A) Solve any one **[5]**

i) Complete the projection of line RS makes an angle with HRP 45°. Ref. fig. (i).

ii) Find angle made by plane XYZ with HP & true shape of plane XYZ. Ref. fig. (ii).

B) A circular plate of 60mm dia. is resting on VP at point A on its rim with its surface inclined at 45°to VP & dia. AB through A is inclined at 60° to HP. Draw projection of circular plate. **[10]**

Q2) A) Solve any one **[5]**

i) Complete projection of line MN if Bearing is S60E w.r.t. point M, FV makes 45° to the HP & TV length is 70mm. Ref. fig. (iii).

ii) Find angle made by plane LMN with VP & perimeter of plane LMN. Ref. fig. (iv).

B) A pentagonal lamina of side 35mm rests on one of its side in the V.P. & parallel to HP. Draw its projections if the surface of lamina is inclined at 60° to the V.P. **[10]**

P.T.O.

Q3) A pentagonal prism base side 25 mm axis height 65 mm resting on HP on one of its corner. Such that its axis is inclined at 30° to HP & the side opposite to corner is 45° to VP. Complete its projection. **[10]**

Q4) Solve any Two. **[10]**

a) A stone is thrown from a building of 7 meters height and at its highest flight. The stone just crosses over a tree of 14 meters height. Trace the path of the stone till it touches the ground. The distance between building and the tree is 3.5 meters.

b) A circle of 50mm Diameter rolls on horizontal line for half revolution and another half revolution on vertical line. Draw the curve traced out by a point 'p' on top of circumference of circle.

c) Draw the half convolution of Archimedean spiral with minimum radius 25 mm and radial increment of 6 mm for each 30 degree movement.

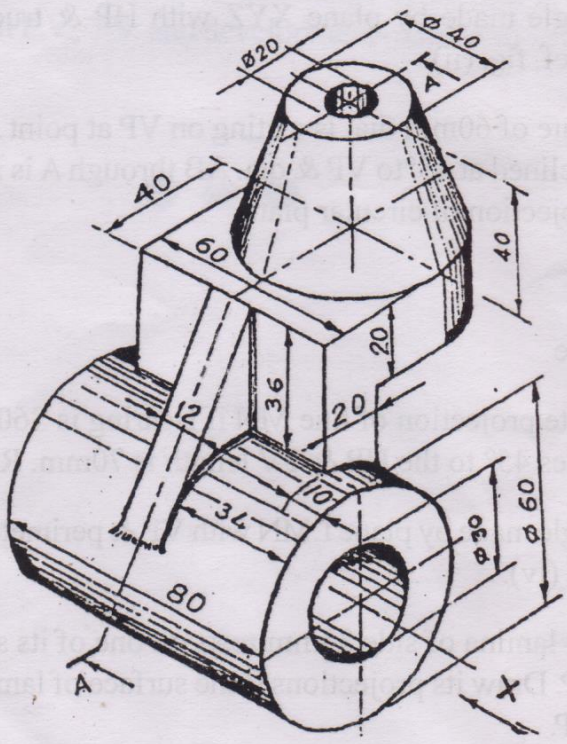
SECTION - II

Q5) Following figure shows a view of C. I. Block. Draw the following : **[15]**

a) Sectional front view along A-A in the direction "X".

b) Left hand side view.

c) Show the important dimensions.

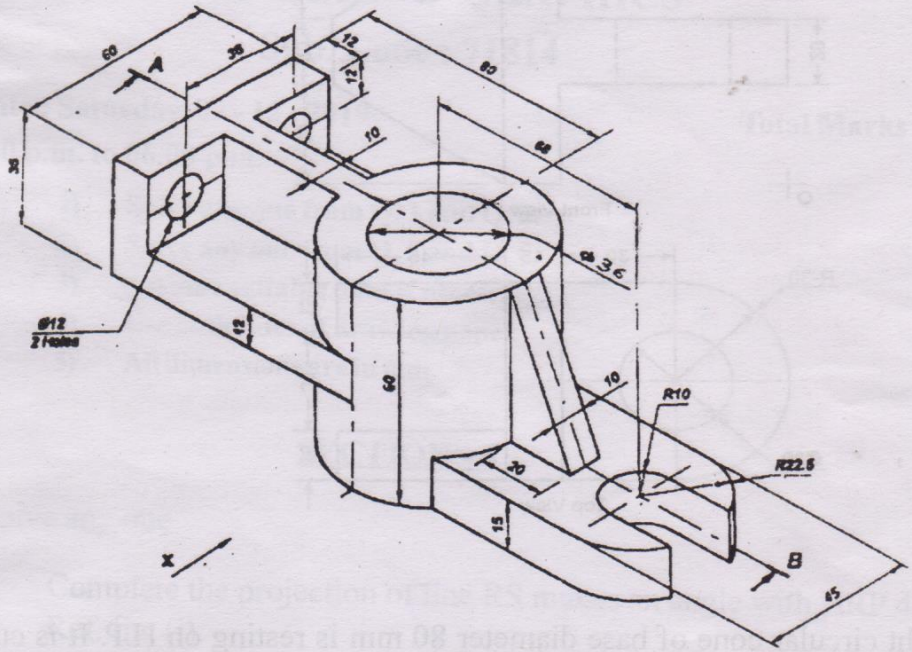


Q6) From following figure draw the following views : **[15]**

a) Sectional front view along A-B in the direction "X".

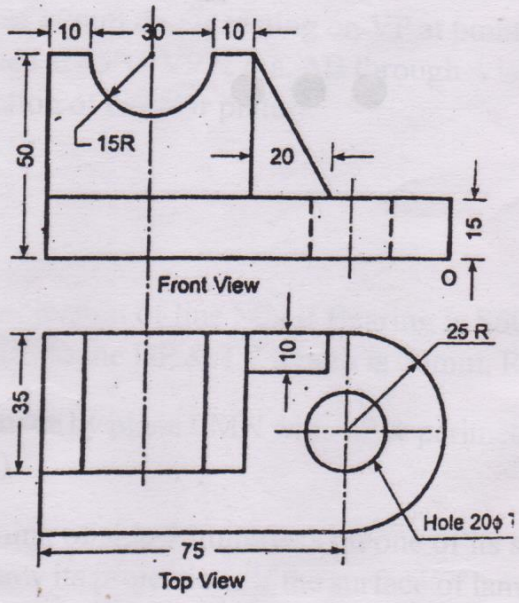
b) Top view.

c) Show the important dimensions.

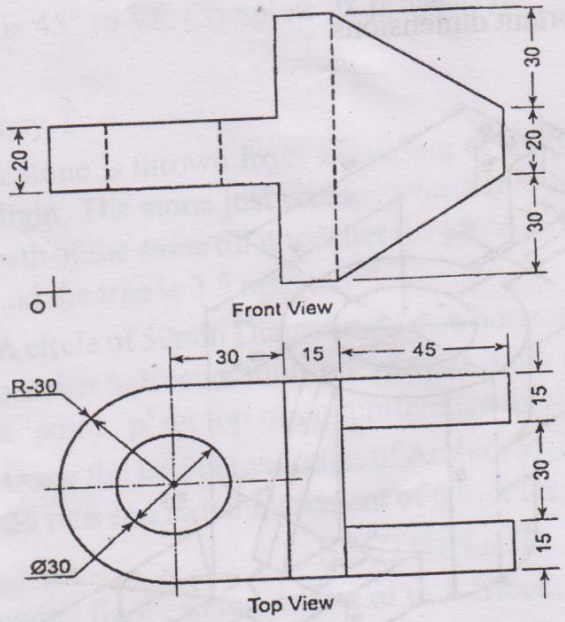


Q7) Solve any one **[10]**

a) Figure shown the view. Draw isometric view.



b) Figures shown the views. Draw isometric projection. **[10]**



Q8) A right circular cone of base diameter 80 mm is resting on H.P. It is cut by section plane parallel to V.P. and at a distance of 15 mm in front of axis of cone. Draw sectional F.V., T.V. and development of remaining part of cone. **[10]**

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