

Seat
No.

SV - 624

Total No. of Pages : 6

F.Y. B.Tech. (Semester - I & II) Examination, May - 2019

ENGINEERING GRAPHICS

Sub. Code : 71814

Day and Date : Wednesday, 15 - 05 - 2019

Total Marks : 70

Time : 10.00 a.m. to 01.30 p.m.

- Instructions :
- 1) Solve any one from Q. 1 and Q. 2.
 - 2) Solve any one from Q. 5 and Q. 6.
 - 3) Attempt remaining four questions compulsory.
 - 4) Assume suitable data if necessary and state it clearly.
 - 5) Use both sides of drawing paper.
 - 6) All dimensions are in mm.

SECTION - I

Q1) A) Solve any one. [5]

- i) Complete the projection of line AB makes an angle 45° with HRP. Ref. fig. (i).
- ii) Find angle made by plane DEF with HP and true shape of plane DEF. Ref. fig. (ii).

B) A square lamina of side 35 mm rests on one of its corner in the VP. and the surface of lamina is inclined at 40° to the VP. Draw its projections if diagonal which is drawn from resting corner is inclined 60° to HP. [10]

Q2) A) Solve any one. [5]

- i) Complete projection of line JK if Bearing is $S60^\circ E$ w.r.t. point J, FV makes 55° to the HP. and TV length is 75mm. Ref. fig. (iii).
- ii) Find angle made by plane PQR with VP and perimeter of plane PQR. Ref. fig. (iv).

B) A pentagonal lamina of side 35 mm rests on one of its side in the HP. and inclined at 45° to VP. Draw its projections if the surface of lamina is inclined at 60° to the HP. [10]

P.T.O.

Q3) A hexagonal pyramid base side 25 mm axis height 65 mm resting on HP, on one of its base side. Such that it is lying on one of its triangular face on HP and its top view axis is inclined at 45° to VP. Complete its projection. [10]

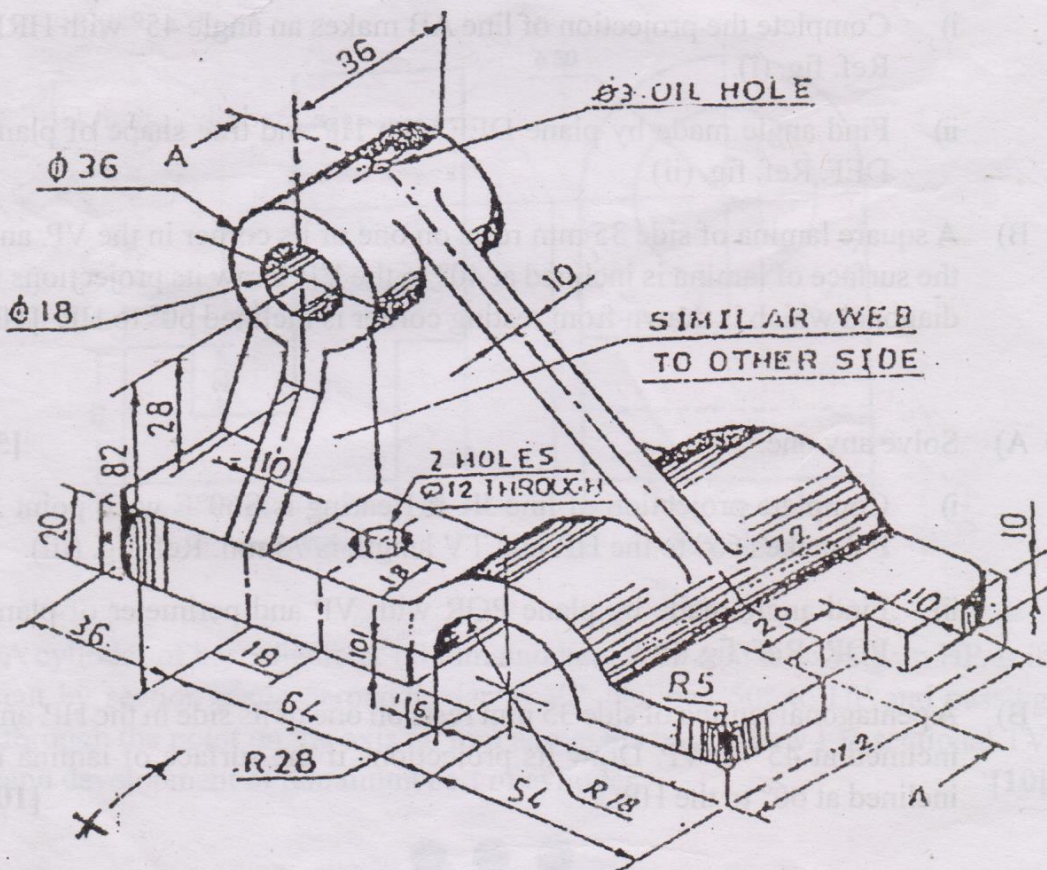
Q4) Solve any two. [10]

- Construct hyperbola having vertex 30 mm away from directrix and eccentricity is $5/3$.
- A thread of length 150 mm is wound around a circle of 40 mm diameter. Trace the path of end point of thread.
- Draw the one convolution of Archimedean spiral with minimum radius 15 mm and radial increment of 4 mm for each 30 degree movement.

SECTION - II

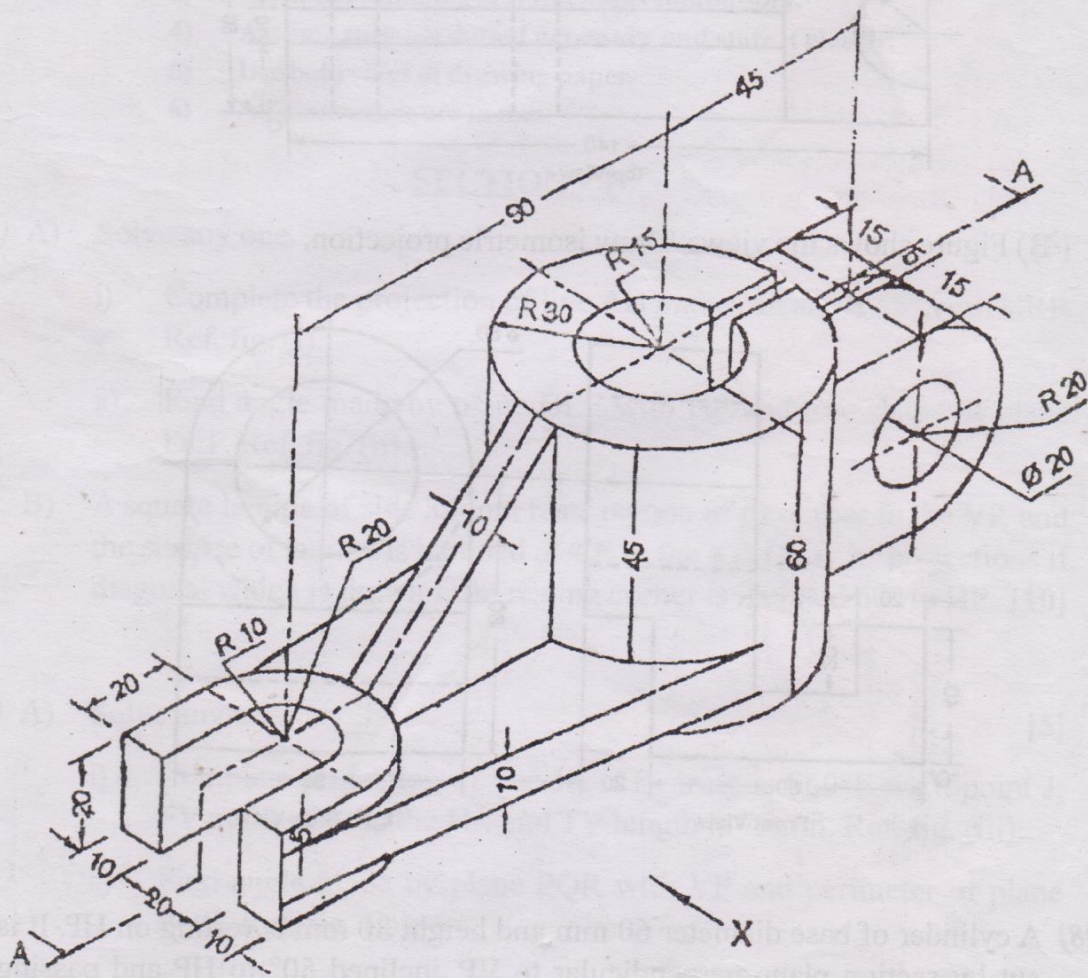
Q5) Following figure shows a view of Bracket. Draw the following : [15]

- Sectional front view along A-A in the direction "X".
- Right hand side view.
- Show the important dimensions.



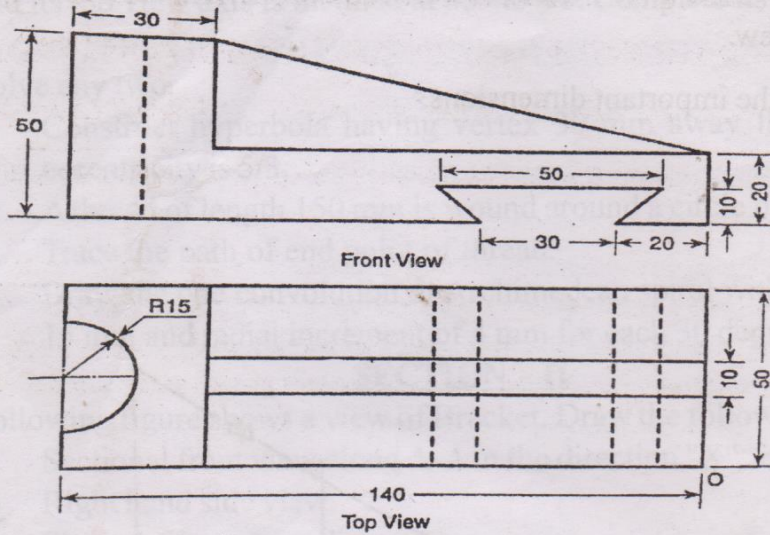
Q6) From following figure draw the following views :

- Sectional front view along A-A in the direction "X".
- Top view.
- Show the important dimensions.

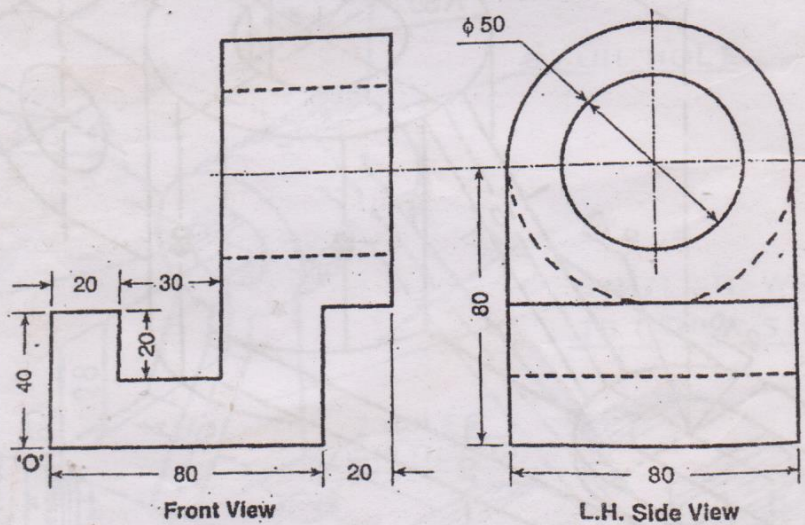


Q7) Solve any one.

A) Figure shows the views. Draw isometric view.



B) Figure shows the views. Draw isometric projection.



Q8) A cylinder of base diameter 60 mm and height 80 mm is resting on HP. It is cut by section plane perpendicular to VP, inclined 50° to HP and passing through the point on the axis 50 mm above the base. Draw FV, sectional TV and development of remaining part of cylinder. [10]

