

Seat No.	
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**F.Y. (B.Tech.) (All branches) (Semester - I) Examination,
Decemember - 2018
ENGINEERING GRAPHICS
Sub. Code : 71814**

Day and Date : Thursday, 06 - 12 - 2018

Total Marks : 70

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

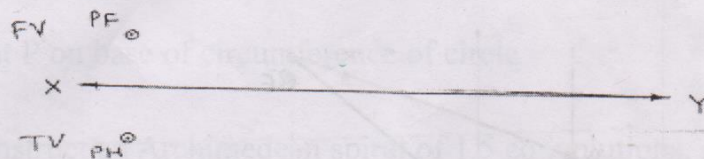
- Instructions :
- 1) Solve any one from Q. 1 and Q. 2.
 - 2) Solve any one from Q. 5 and Q. 6.
 - 3) Attempt Remaining four questions compulsory.
 - 4) Assume suitable data if necessary.
 - 5) Use both sides of drawing paper.
 - 6) All dimensions are in mm.

SECTION - I

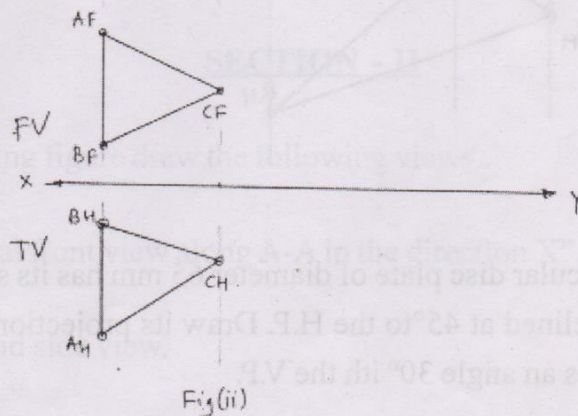
Q1) a) Solve any one.

[5]

- i) Complete the projection of line PQ is 75 mm. Top view makes an angle with FRP 45° & end Q is 65 mm above HRP Ref.fig. (i).



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



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- b) A hexagonal lamina of side 35 mm rests on one of its side in the V.P. & parallel to H.P. Draw its projections if the surface of lamina is inclined at 45° to the V.P. [10]

Q2) a) Solve any one. [5]

- i) Complete projection of line AB if grade is 75%. bearing is S45W true length is 80mm. Ref.fig. (iii).

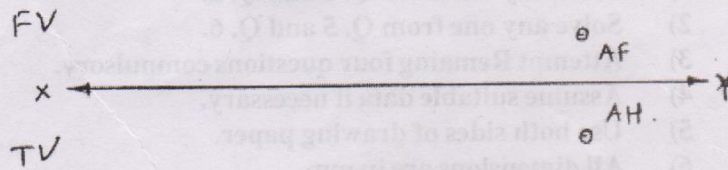


fig.(iii)

- ii) Find angle made by plane PQR with HP & perimeter of plane PQR. Ref.fig. (iv).

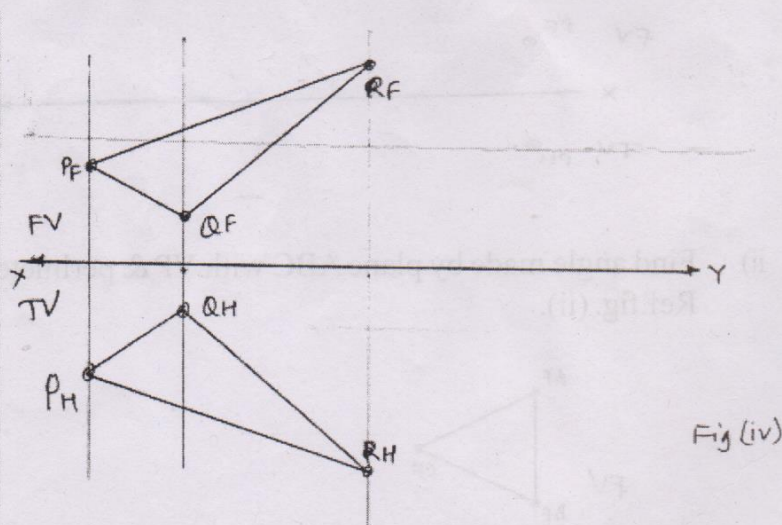


Fig (iv)

- b) A semi-circular disc plate of diameter 65 mm has its straight edge in the VP and inclined at 45° to the H.P. Draw its projections if the surface of plate makes an angle 30° with the V.P. [10]

Q3) A right circular cylinder with 50mm dia, & height 70mm rest on HP. Such that the base is inclined at 60° to HP & top view axis is inclined 45° to VP. Complete the projections. [10]

Q4) Solve any Two. [10]

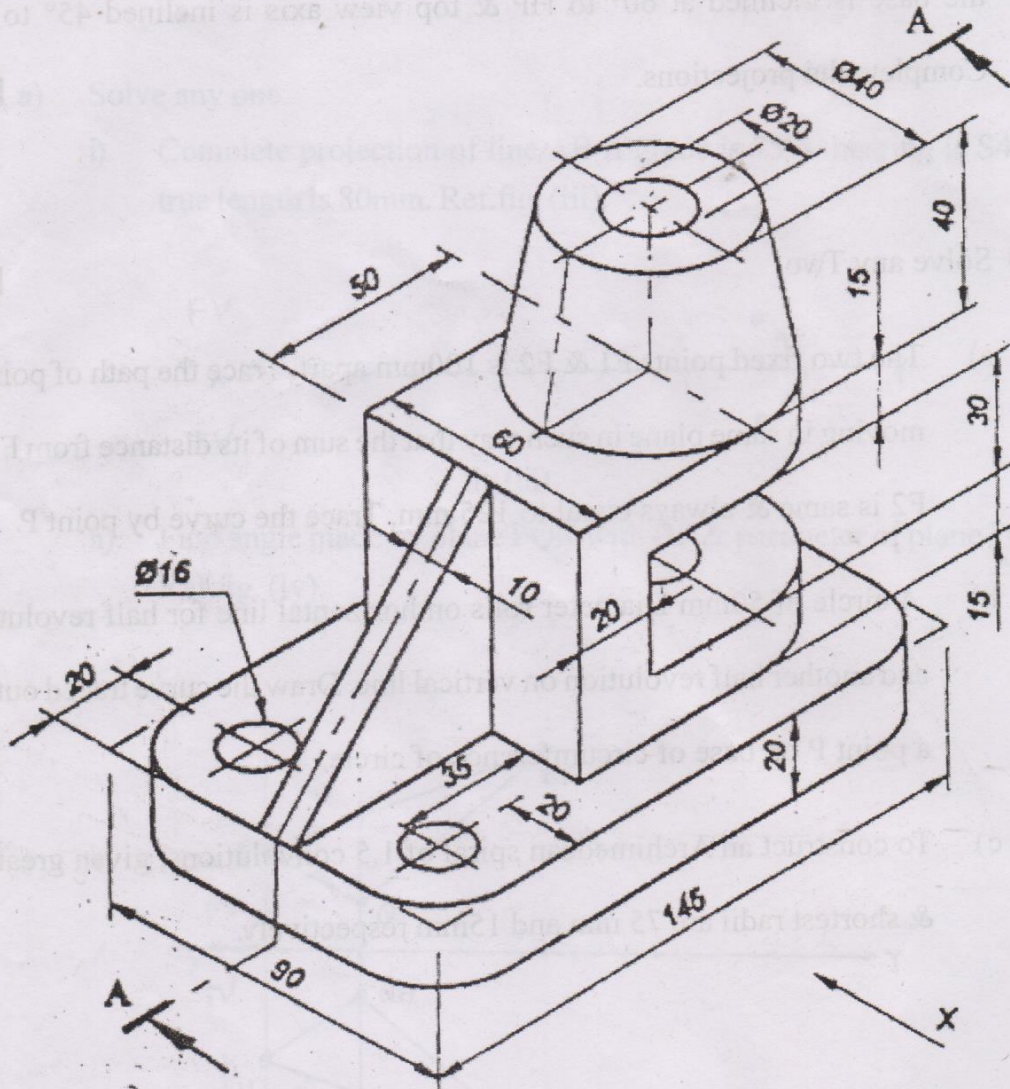
- a) The two fixed points F1 & F2 is 100mm apart. Trace the path of point P moving in same plane in such way that the sum of its distance from F1 & F2 is same & always equal to 125 mm. Trace the curve by point P.
- b) A circle of 50mm Diameter rolls on horizontal line for half revolution and another half revolution on vertical line. Draw the curve traced out by a point P on base of circumference of circle.
- c) To construct an Archimedean spiral of 1.5 convolutions, given greatest & shortest radii are 75 mm and 15mm respectively.

SECTION - II

Q5) From following figure draw the following views : [15]

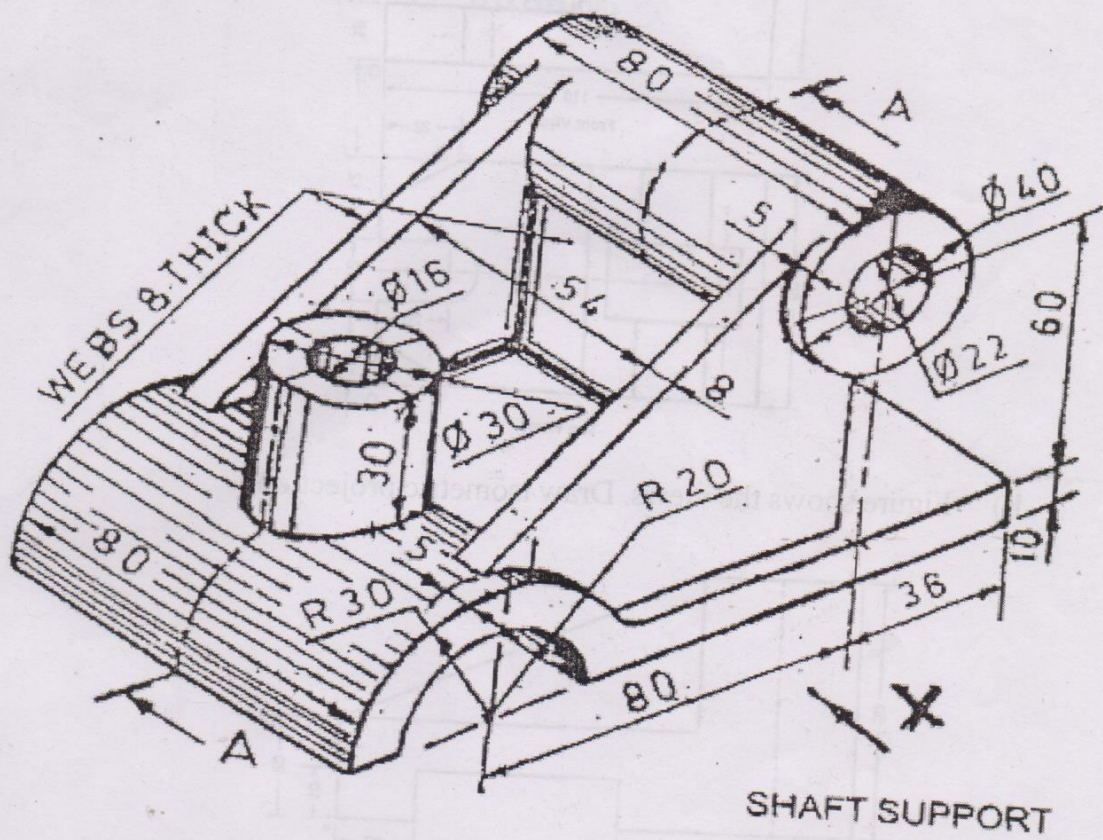
- a) Sectional front view along A-A in the direction X".
- b) Left hand side view.

c) Show the important dimensions.



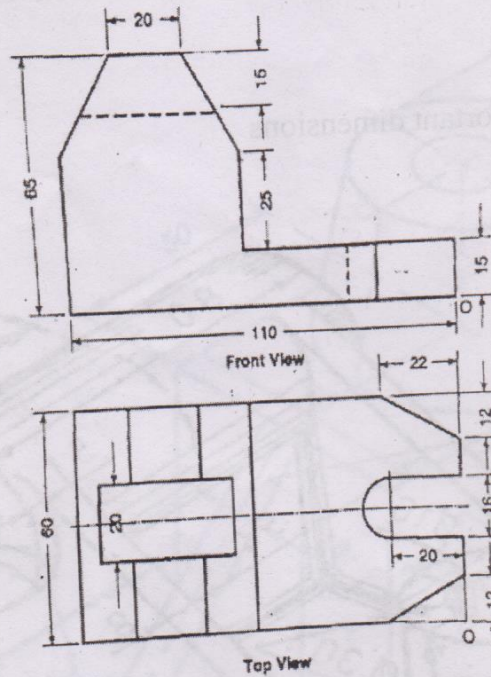
Q6) Following figure shows a view of Shaft Support. Draw the following : [15]

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

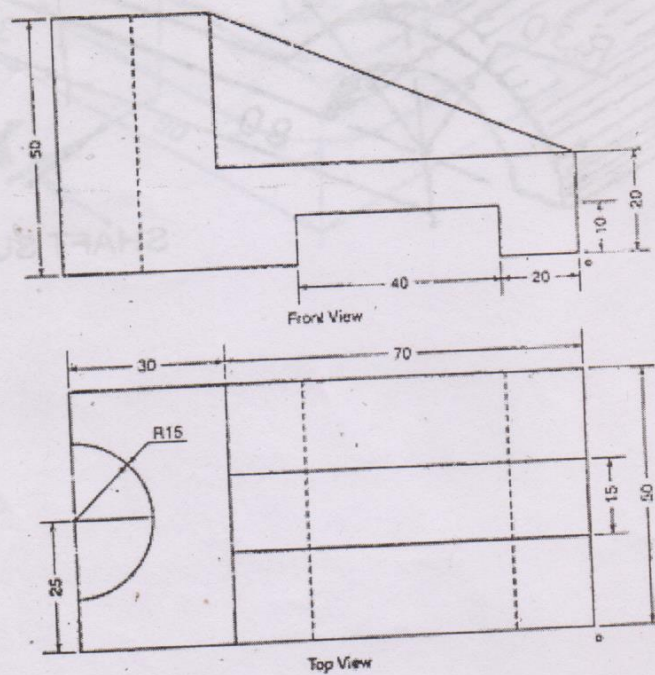


Q7) Solve any one.

a) Figure shows the views. Draw isometric view.



b) Figure shows the views. Draw isometric projection.



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Q8) A hexagonal based pyramid with base side 25 mm and height 50 mm rests on H.P. with two opposite base edge parallel to V.P. the pyramid is cut by section plane which is perpendicular to V.P. and inclined at 45° to H.P. and passing through its extreme left hand side corner. Draw the F.V., sectional T.V. and development of remaining part of pyramid. [10]

