

G.R. No.

Paper Code - U117-106 (BE-FS&amp;F)

**APRIL 2018 / BACKLOG EXAMINATION**  
**F. Y. B. TECH. (COMMON) (SEMESTER - I)**  
**COURSE NAME: ENGINEERING GRAPHICS**  
**Course code: ME11176**  
**(2017 PATTERN)**

Time: [2 Hours]

[Max. Marks: 50]

**(\*) Instructions to candidates:**

- 1) Answer Q.1 OR Q.2, Q.3 OR Q.4, Q.5 OR Q.6, Q.7 OR Q.8
- 2) Figures to the right indicate full marks.
- 3) Use of scientific calculator is allowed.
- 4) Use suitable data where ever required.
- 5) Use only half imperial size drawing sheet as answer book.
- 6) Retain all construction lines.
- 7) Marks are reserved for dimensioning and good presentation.

- Q. a) Draw the involute of a circle, 30 mm in diameter.  
 1 b) Draw the parabola using rectangle method having base length 100 mm and axis 75 mm. [10]

**OR**

- Q. ABCDE is a regular pentagon plate of 30 mm side is having its base AE in  
 2 HP. Point C is 20 mm above HP. Draw the projection of pentagon if top  
 view of AE makes an angle of  $60^\circ$  with XY. Find angle made by plane with [10]  
 HP.  
 Q. Fig. 01 shows pictorial view of an object, by using first angle method of  
 3 projections draw sectional FV, TV and RHSV with dimensions.

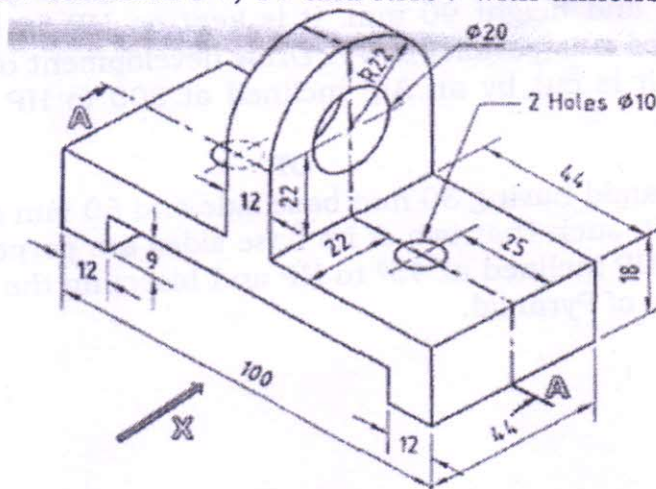


Fig. 01

[14]

OR

- Q. 4 Fig. 02 shows orthographic views of an object. Draw isometric view using natural scale

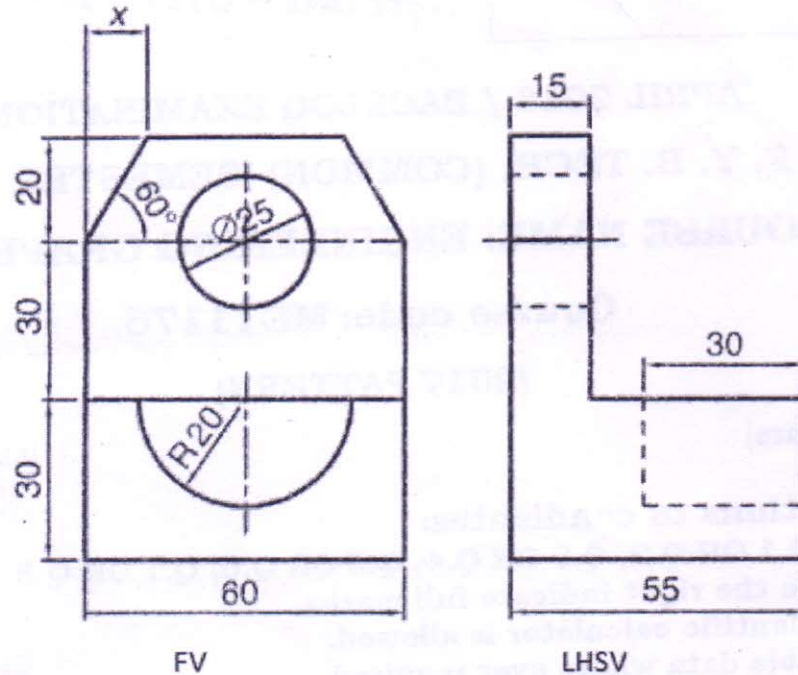


Fig. 02

[14]

- Q. 5 A square pyramid of base 30 mm and axis length 60 mm is kept on the H.P. on edge of its base. It is inclined to the H.P in such a way that axis makes an angle of  $40^\circ$  with HP. Draw the projections of Pyramid if edge on HP makes angle of  $50^\circ$  with VP and apex is towards observer.

[14]

OR

- Q. 6 A square prism having side of base 30 mm and axis of length 55 mm is kept on the H.P on corner of its base such that its base makes an angle of  $45^\circ$  with HP. Draw the projections of the prisms if top view of axis makes an angle of  $50^\circ$  with XY.

[14]

- Q. 7 Draw Development of Lateral surface of pentagonal prism with edge of base 40 mm and height 90 mm. It is kept on HP on edge of base such that edge of base is parallel to VP. Draw development of lateral surface of prism when it is cut by an AIP inclined at  $30^\circ$  to HP and bisecting the axis of prism.

[12]

OR

- Q. 8 A Square pyramid having 30 mm base side and 60 mm axis length is kept on base on HP such that two of its base sides are perpendicular to VP. It is cut by an AIP inclined at  $45^\circ$  to HP and bisecting the Axis. Develop the lateral surface of Pyramid.

[12]