

G.R. No.

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

DECEMBER 2017 / ~~ENDSEM~~ RE-EXAM

F. Y. B. TECH. (COMMON) (SEMESTER - I)

COURSE NAME: ENGINEERING GRAPHICS

(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, 40 mm in diameter.  
 1 b) Draw the parabola using rectangle method having base length 120 mm and axis 90 mm. [10]

OR

- Q. PQRSTU is a regular hexagonal plate of 30 mm side resting on its edge PQ on HP. It is inclined to HP in such a top view of PQST becomes a square. Draw the projections if base PQ makes an angle of  $50^\circ$  with VP. Find angle made by the plane with HP. [10]

- Q. Fig. 01 shows pictorial view of an object, by using first angle method of projections draw FV, TV and RHSV with dimensions.

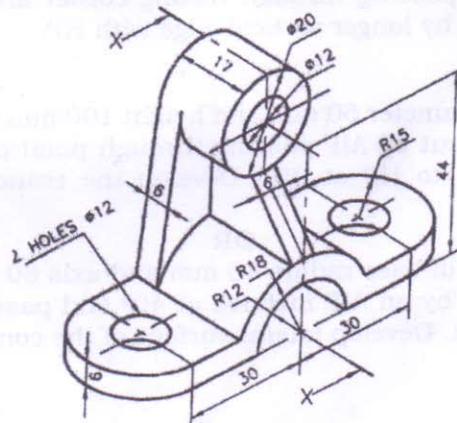


Fig. 01

OR

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

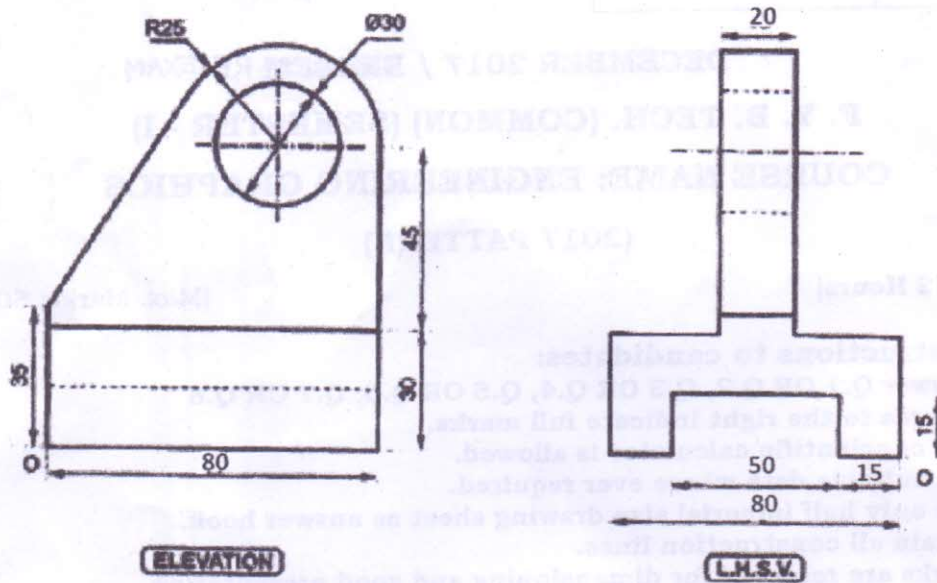


Fig. 02

[14]

- Q. 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 apex is at 40 mm from HP. Draw the projections of Pyramid if edge on HP makes angle of  $40^\circ$  with VP and apex is towards observer. Find the angle made by square base with HP.

[14]

OR

- Q. 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. Other corner of the longer edge containing resting corner is at 35 mm from HP. Draw the projections of the prisms if top views of base edges passing through resting corner are equally inclined to VP. Find angle made by longer vertical edge with HP.

[14]

- Q. Cylinder with base diameter 50 mm and height 100 mm is resting on its base surface on HP. It is cut by AIP passing through point on axis bisecting the axis. AIP is inclined to HP at  $35^\circ$ . Develop the truncated portion of the cylinder.

[12]

OR

- Q. A right circular cone of base radius 40 mm and axis 80 mm is resting on its base on HP. It is cut by an AIP inclined at  $40^\circ$  and passing through a point 35 mm from the apex. Develop lateral surface of the cone.

[12]