

Total No. of Questions – [ 08 ]

Total No. of Printed Pages 02

G.R. No.	
----------	--

Paper code :- U117-106 (RE-FF&E)

**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. 1 A circle of 40 mm diameter rolls along a line for one revolution clockwise. Draw the locus of a point on the circle, which is in contact with the line. [10]

**OR**

Q. 2 A regular pentagon of length of 30 mm side has one of its corner resting on HP and its surface is inclined at  $60^\circ$  to HP. The edge opposite to the resting corner makes  $45^\circ$  with VP. Draw the projection of plane. [10]

Q. 3 Fig. 01 shows pictorial view of an object, by using first angle method of projections draw FV, TV and RHSV with dimensions.

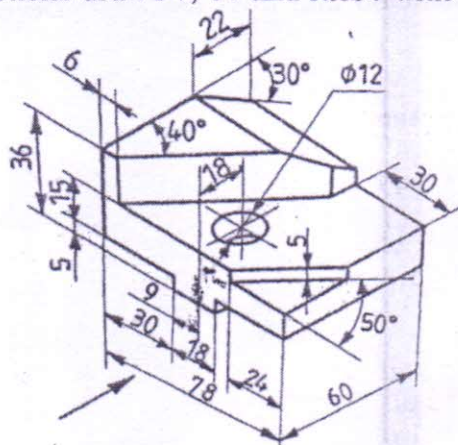


Fig. 01

[14]

OR

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

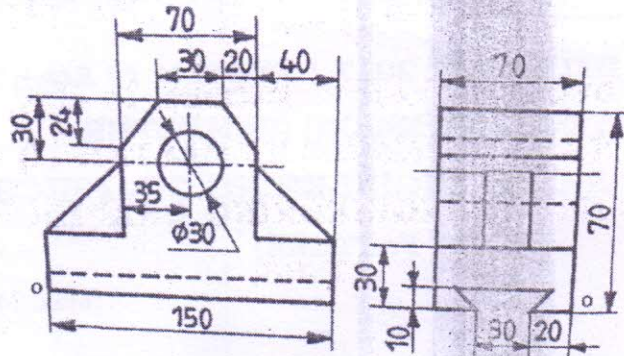


Fig. 02

[14]

- Q. 5 A square pyramid, with base 35 mm side and axis 80 mm long, has one of its triangular face on HP. The plan of axis makes an angle of  $45^\circ$  with VP, draw its projections.

[14]

OR

- Q. 6 A cone with base diameter 50 mm and axis 70 mm is kept on a point of its base circle. Its axis makes  $55^\circ$  with HP. Draw its projection if plan of axis makes  $35^\circ$  with VP.

[14]

- Q. 7 A hexagonal prism of edge 30 mm and axis 70 mm is resting on its base on HP such that one of its rectangular face is perpendicular to VP. It is cut by an AIP inclined at  $40^\circ$  and passing through top right corner of its top face in the elevation. Develop lateral surface of the prism.

[12]

OR

- Q. 8 A right circular cone of base radius 30 mm and axis 80 mm is resting on its base on HP. It is cut by an AIP inclined at  $30^\circ$  and passing through a point 30 mm from the apex. Develop lateral surface of the cone.

[12]