

SEPTEMBER 2017 / IN - SEM (T1)
F. Y. B.TECH. (COMMON) (SEMESTER - I)
ENGINEERING GRAPHICS (ME11176)
(2017 PATTERN)

Time: [1 Hour 15 Minutes]

[Max. Marks : 30]

Instructions to candidates:

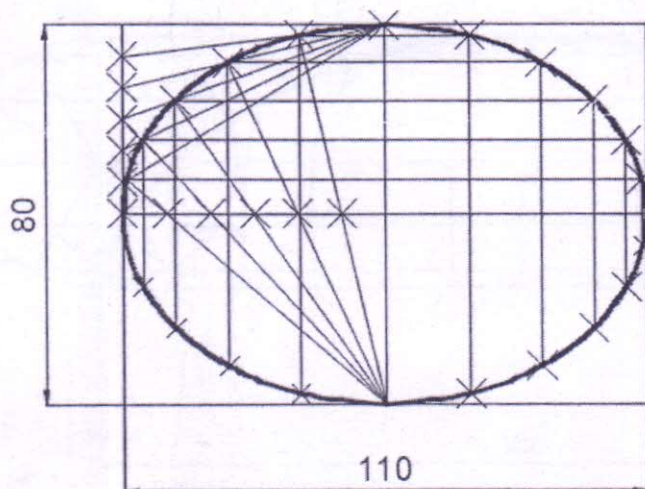
- 1) Answer Q.1 OR Q.2, Q.3 OR Q.4.
- 2) Figures to the right indicate full marks.
- 3) Use of scientific calculator is allowed
- 4) Use only half imperial size drawing sheet as answer book.
- 5) Retain all construction lines.
- 6) Assume suitable data, if necessary.
- 7) Marks are reserved for dimensioning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

CO:

1. Understand the basics of dimensioning, lettering and representation of lines.
2. Comprehend lines used for representation of different Engineering Sections.
3. Illustrates Lines, Plane, and Solids.
4. Sketch geometric and engineering curves & understand the logic behind development of surfaces.
5. Construct Orthographic projections and sections views, isometric views.
6. Design two dimensional drawings using Auto CAD software.

- Q 1) a) Draw an ellipse with 110 mm long major axis and 80 mm minor axis. Use Rectangle method. [8]

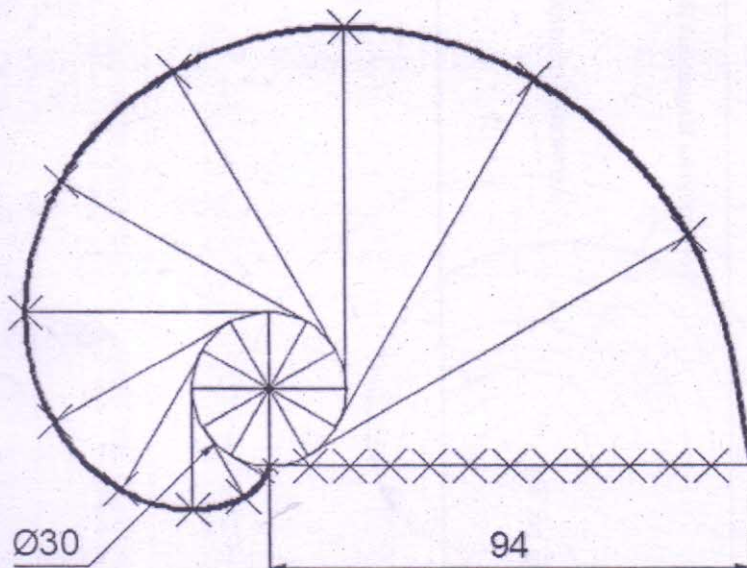
CO Mapped: 1,2, 4, Easy Level Difficulty, Cognitive Level



Marking Scheme: Drawing Given Data: 2 Marks, Construction and locating correct points: 2 Marks, Smooth Curve: 2 Marks, Dimensions ,Label and Overall Drawing work: 2 Marks

b) Draw the involute of a circle, 30 mm in diameter. [8]

CO Mapped: 1,2, 4, Easy Level Difficulty, Cognitive Level

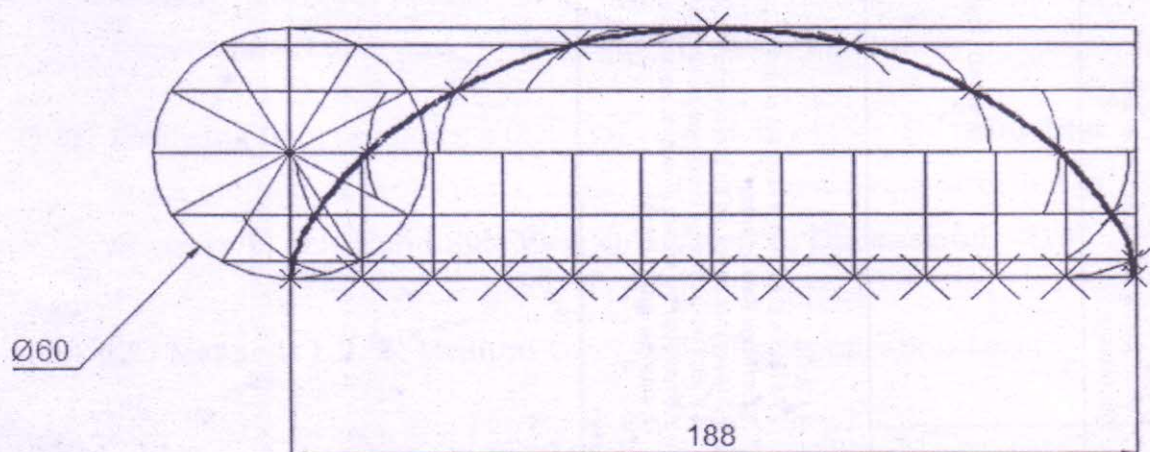


Marking Scheme: Drawing Given Data: 2 Marks, Construction and locating correct points: 2 Marks, Smooth Curve: 2 Marks, Dimensions ,Label and Overall Drawing work: 2 Marks

OR

Q 2) a) Draw a cycloid of a circle rolling with diameter 60 mm. [8]

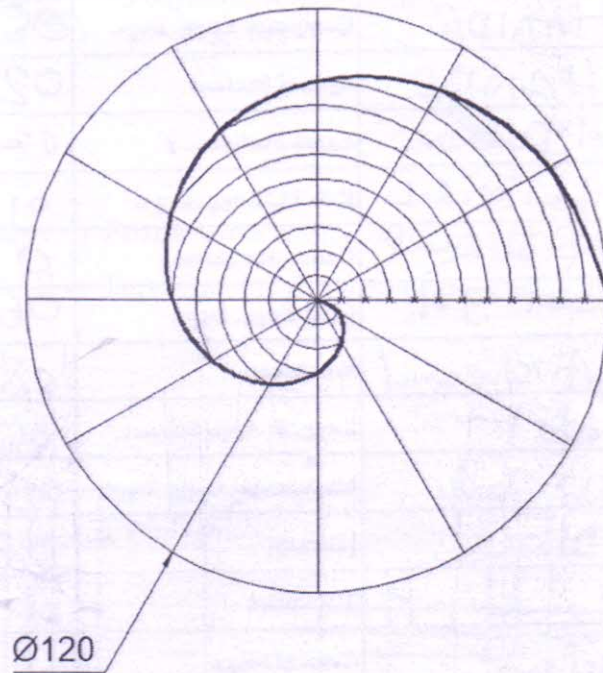
CO Mapped: 1,2, 4 ,Easy Level Difficulty, Cognitive Level



Marking Scheme: Drawing Given Data: 2 Marks, Construction and locating correct points: 2 Marks, Smooth Curve: 2 Marks, Dimensions ,Label and Overall Drawing work: 2 Marks

b) Draw an Archimedean spiral for one convolution with diameter of 120 mm. [8]

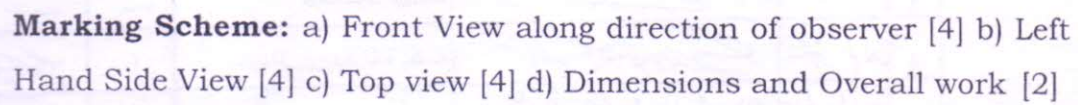
CO Mapped: 1,2, 4, Easy Level Difficulty, Cognitive Level



Marking Scheme: Drawing Given Data: 2 Marks, Construction and locating correct points: 2 Marks, Smooth Curve: 2 Marks, Dimensions ,Label and Overall Drawing work: 2 Marks

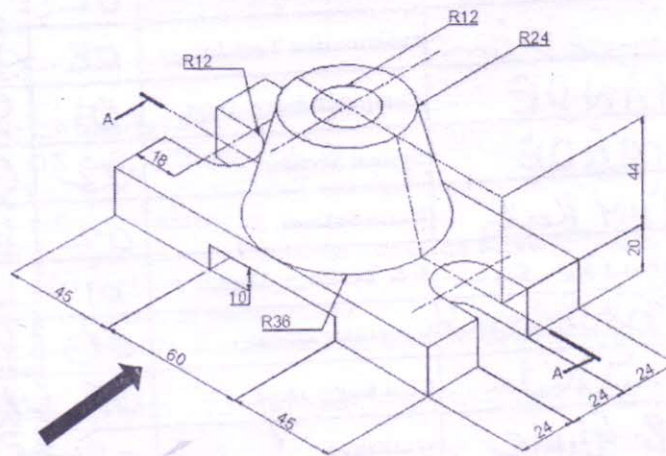
Q 3) Following figures shows a pictorial view of an object. By using first angle method of projections, draw: a) Front View along direction of observer b) Left Hand Side View c) Top view d) Dimensions [14]

CO Mapped: 1,2, 5, Medium Level Difficulty, Application Level



- Q 4) The following figure shows a cast iron bracket. By using first angle projection method, draw: a) Sectional Front View (cutting plane is plane of symmetry) b) Top View c) RHSV d) Dimensions [14]

CO Mapped: 1,2, 5, Medium Level Difficulty, Application Level



Marking Scheme: a) Sectional Front View along direction of observer [4] b) Right Hand Side View [4] c) Top view [4] d) Dimensions and Overall work [2]

