



B.Tech II Semester Regular Examinations, September 2023
ENGINEERING GRAPHICS
(Civil Engineering)

Maximum Marks: 60

Date: 25.09.2023 Duration: 3 hours

- Note:
1. This question paper contains two parts A and B.
 2. Part A is compulsory which carries 10 marks. Answer all questions in Part A.
 3. Part B consists of 5 Units. Answer any one full question from each unit.
 4. Each question carries 10 marks and may have a, b, c, d as sub questions.

Part-A

All the following questions carry equal marks

(10x1M=10 Marks)

1. a Why the Drawing Is Called Language Of Engineers?
b Write the differences between conics and curves
c Sketch the symbols used to present third angle projection
d What is the trace of lines?
e What is the difference between true inclination of line and apparent angle?
f What do you mean by oblique plane?
g Why are sectional views used in engineering drawing?
h What is the principle and application of development of surface?
i What are the differences between isometric and orthographic views?
j Name the method preferred for drawing ellipse in isometric projections.

Part-B

Answer All the following questions.

(5X10M=50Marks)

- 2 A fixed-point F is 7.5 cm from a fixed straight line. Draw the locus of a point P moving in such a way that its distance from the fixed straight line is equal to its distance from F. name the curve. Draw normal and tangent at a point 6 cm from F. [10]

OR

- 3 A circle of diameter 50mm rolls along a straight line without slipping. Draw the curve traced out by a point P on the circumference for one complete revolution of the circle. Name the curve. Draw a tangent normal to the curve at a point on it 40mm from the line. [10]

- 4 A line PQ 40 mm long is parallel to VP and inclined at an angle of 30 degrees to HP. The lower end P is 15 mm above HP and 20 mm in front of VP. Draw the projections of the line. [10]

OR

- 5 A pentagonal plate of side 25 mm has its side AB in the V.P. and inclined at 45° to H.P. The corner A is 20 mm above the H.P. and the plane is inclined 30° to V.P. Draw the projections of pentagonal plate. [10]
- 6 Draw the projections of the cone base 45mm diameter and axis 50mm long, when it is resting on the ground on a point on its base circle with the axis making an angle 30° with H.P. and 45° with V.P. [10]

OR

- 7 A pentagonal pyramid, side of base 25mm and axis 50mm long, lies with one of its slant edges on H.P. such that its axis is parallel to V.P. Draw its projections. [10]
- 8 A pentagonal pyramid of base side 20 mm and altitude 55 mm rests on its base on the HP with one of the base edges perpendicular to the VP. It is cut by a plane inclined at 50° to the base. The cutting plane meets the axis at 15 mm above the base. Draw the front view, sectional top view and the true shape of the section. [10]

OR

- 9 A cone of base 50 mm diameter and height 65 mm rests with its base on HP. A section plane perpendicular to VP and inclined at 30° to HP bisects the axis of the cone. Draw the development of the lateral surface of the truncated cone. [10]
- 10 A square pyramid of 20 mm side and 30 mm height is placed centrally on the top face of a frustum of a hexagonal pyramid, sides of top and bottom faces being 15 mm and 30 mm respectively and its height is 50 mm. The axes of both the solids coincide. Draw the isometric projection of the combination of solids. [10]

OR

- 11 Draw the front view, top view and left side view of the object shown in figure. [10]

