

ANURAG Engineering College

(An Autonomous Institution)

I B.Tech I Semester Supplementary Examinations, January – 2025

COMPUTER AIDED ENGINEERING GRAPHICS

(COMMON TO CSE & AIML)

Time: 3 Hours**Max. Marks: 60****Section – A (Short Answer type questions)****(10 Marks)****Answer All Questions**

	Course Outcome	B.T Level	Marks
1. What is the concept of engineering graphics?	CO1	L1	1M
2. Summarize the advantages of CAD?	CO1	L2	1M
3. Define the first angle projection?	CO2	L1	1M
4. What are the 3 principal views?	CO2	L1	1M
5. What do you mean by prism?	CO3	L1	1M
6. What is the Frustum of Cone	CO3	L1	1M
7. What is the development of the surface of a solid?	CO4	L1	1M
8. Outline the applications of development of surfaces?	CO4	L2	1M
9. List the Methods of Projections	CO5	L1	1M
10. What is an isometric scale used for?	CO5	L1	1M

Section B (Essay Questions)**Answer all questions, each question carries equal marks.****(5 X 10M = 50M)**

11. A) The distance between Delhi and Agra is 200 km. In a railway map it is represented by a line 5 cm long. Find its R.F. Draw a diagonal scale to show single km. And maximum 600 km. Indicate on it following distances. i) 222 km ii) 336 km iii) 459 km iv) 569 km
OR
- B) A circle of 50 mm diameter rolls on another circle of 150 mm diameter 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 to the curve at a point P on it.
12. A) A 80mm long line AB has the end A at a distance of 20mm above HP and 40 mm in front of V.P. The line is inclined at 30° to H.P and parallel to V.P, draw the projection of the line.
OR
- B) A square plate of 40 mm side rests on HP such that one of the diagonals is inclined at 30° to HP and 45° to VP. Draw its projections.
13. A) A square prism 35 mm side of base and 60 mm axis length rests on HP on one of its edges of the base which is inclined to VP at 30° . Draw the projections of the prism when the axis is inclined to HP at 45° .
OR
- B) A cone 40 mm diameter and 50 mm axis is resting on one of its generator on HP which makes 30° inclinations with VP. Draw its projections?

14. A) A hexagonal prism, edge of base 20 mm and axis 50 mm long, rests with its base on HP such that one of its rectangular faces is parallel to VP. It is cut by a plane perpendicular to VP, inclined at 45° to HP and passing through the right corner of the top face of the prism.
i) Draw the sectional top view ii) Develop the lateral surfaces of the truncated prism
- OR
- B) Draw the development of the lateral surface of the lower portion of a cylinder of diameter 50 mm and axis 70 mm when sectioned by a plane inclined at 40° to HP and perpendicular to VP and bisecting axis.
15. A) Draw an isometric view of Cone with a base diameter is 50 mm side and 70 mm long axis i) when the base is on the HP ii) when the base is on the VP?
- OR
- B) Draw the i) Front view ii) Top View iii) Side view of the given figure (All dimensions are given in mm)

