R22

ANURAG Engineering College
(An Autonomous Institution)
I B.Tech II Semester Regular/Supplementary Examinations, June/July – 2024
COMPUTER AIDED ENGINEERING GRAPHICS
(COMMON TO CIVIL, EEE, ECE & IT)

Time: 3 Hours   **Max. Marks: 60**

Section – A (Short Answer type questions) (10 Marks)
Answer All Questions

		Course Outcome	B.T Level	Marks
1.	Draw any two types of arrow heads as recommended by BIS.	CO1	L1	1M
2.	Distinguish between dimension lines and projection lines.	CO1	L2	1M
3.	A point P lies on V.P and 50 mm from the H.P. Draw the possible projections of the point.	CO2	L2	1M
4.	Draw the symbols for first angle projection.	CO2	L1	1M
5.	A cone is resting on its base. What is the shape of its top view?	CO3	L1	1M
6.	What is meant by right regular solid?	CO3	L1	1M
7.	What is meant by development of surface of a solid?	CO4	L2	1M
8.	How's cone surface developed.	CO4	L2	1M
9.	What is orthographic projection?	CO5	L1	1M
10.	What do you mean Isometric drawing?	CO5	L1	1M

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

11. A)	Draw a hyperbola when the distance between its focus and directrix is 50 mm and eccentricity is 3/2.		CO1	L3	10M

OR

B)	Draw a hypocycloid generated by a rolling circle of 60 mm diameter for one complete revolution. The radius of the directing circle is 100 mm. draw a tangent and a normal to the hypocycloid at 50 mm from the Centre of the directing circle.		CO1	L3	10M

12. A)	The top view of a 75 mm long line AB measure 65 mm while the length of its front view is 50 mm. Its end A is in HP & 12 mm in front of V.P. Determine its inclination with HP & VP.		CO2	L3	10M

OR

B)	A rectangle ABCD of size 40x25 has the corner A 10mm above the HP and 15mm in front of the VP. All sides of a rectangle are equally inclined to HP and parallel to VP. Draw its projections.		CO2	L3	10M

13. A)	A square pyramid of base side 40mm and axis 55mm is resting on one of its triangular faces on the HP.A vertical plane containing the axis is inclined at 45° to the VP. Draw its projections.		CO3	L3	10M

OR

B)	A cylinder of base diameter 50mm and axis 65mm rests on a point of its base circle on the HP. Draw its projections when the axis is inclined at 30° to the HP and top view of the axis is perpendicular to the VP.		CO3	L3	10M

14. A)	A square pyramid base 35 mm side axis 70 mm long rests on its base on HP such that two adjacent sides of the base are equally inclined to VP. It is sectioned by a plane perpendicular to VP inclined a 30° to HP and passing through the midpoint of the axis. Draw the sectional top view and develop the lateral surfaces of the truncated pyramid.		CO4	L3	10M

OR

B)	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.		CO4	L3	10M

15. A)	A of cone base diameter 30mm and height 40mm rests centrally over a cube of side 50mm. Draw the isometric projection of combination of solids.		CO5	L3	10M

OR

B)	Draw front view, top view and side view of given figure. (All dimensions are in mm)		CO5	L3	10M