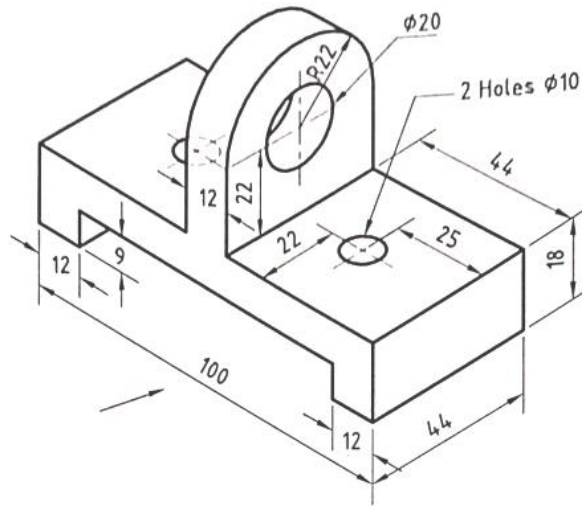


**THE KAVERY ENGINEERING COLLEGE***(An Autonomous Institution)***UG/PG DEGREE END SEMESTER THEORY EXAMINATIONS, APRIL-MAY 2026*****Second Semester******Common to all Branches*****GE3251 / UGET24201 – ENGINEERING GRAPHICS*****Regulations – 2021 & 2024******Duration: 3 Hrs.******Maximum: 100 Marks******ANSWER ALL QUESTIONS (Marks 5\*20 = 100)***

| <b>Q.No</b> | <b>Questions</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | <b>BTL</b> | <b>CO</b> | <b>Marks</b> |
|-------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|-----------|--------------|
| 1.          | <p>a Construct an ellipse when the distance between the focus and directrix is 50 mm and the eccentricity is <math>\frac{2}{3}</math>. Draw the tangent and normal line at any point on the curve.</p> <p style="text-align: center;"><b>Or</b></p> <p>b A roller of 50 mm diameter rolls over a horizontal table without slipping for one complete rotation. Draw the path traced by the point P on the circumference of the circle. Also, draw a tangent and normal line at any point on the curve.</p>                                                                                             | L3         | 1         | 20           |
| 2.          | <p>a A line AB 60 mm long, has its end A 15 mm above HP and 20 mm in front of VP. The top view and front view have a length of 50 mm and 40 mm respectively. Draw its projections also find its true inclinations with HP and VP.</p> <p style="text-align: center;"><b>Or</b></p> <p>b A circular lamina of diameter 50 mm is resting on the HP at a point on the circumference. Its surface is kept inclined at <math>45^\circ</math> to HP. Draw its projections when the line representing its diameter and passing through the resting point is inclined at <math>30^\circ</math> to the VP.</p> | L3         | 2         | 20           |
| 3.          | <p>a A hexagonal pyramid of base side 30 mm and axis length 60 mm is resting on HP on one of its base corners with its axis is inclined at <math>35^\circ</math> to HP. The base sides containing the resting corner are equally inclined to HP. Draw its projections.</p> <p style="text-align: center;"><b>Or</b></p> <p>b Draw the following orthographic views (Free hand sketch) of the figure shown below.</p> <p style="margin-left: 40px;">i. Front view</p> <p style="margin-left: 40px;">ii. Right side view</p> <p style="margin-left: 40px;">iii. Top view</p>                            | L3         | 3         | 20           |



4. a A cone with a base diameter of 50 mm and an altitude of 75 mm rests on its base on the HP. It is cut by a plane inclined at  $45^\circ$  to HP and perpendicular to VP and bisecting the axis. Draw the front view, sectional top view and true shape of the section

Or

- b A pentagonal prism of base side 30 mm and axis length 60 mm is resting on HP on its base with a side of base is parallel to VP. It is cut by a plane inclined at  $35^\circ$  to HP and meets the axis at a distance of 35 mm from the base. Draw the development of lower portion of the prism.

5. a A pentagonal pyramid of base side 30 mm and axis length 65 mm is resting on HP on its base with a side of a base is perpendicular to VP. It is cut by a plane inclined at  $30^\circ$  to HP and perpendicular to VP and passes through a point at a distance of 30 mm from the apex. Draw the isometric view of the remaining portion of the pyramid.

Or

- b A square prism of base side 30 mm and height of 50 mm is rest on the GP with the edges of base making an angle of  $45^\circ$  to PP. The corner nearest to the PP is 25 mm to the right of the station point and 20 mm behind the PP. The station point is 60 mm above the GP and 60 mm in front of the PP. Draw the perspective view of the square prism.

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