

13-7 MAR 2023 - AN

Reg. No.

Question Paper Code

11756

B.E. / B.Tech. - DEGREE EXAMINATIONS, NOV/DEC 2022 (MARCH 2023)

First Semester

Artificial Intelligence and Data Science

(Common to all branches except Computer Science and Business Systems)

20ESGE101 - ENGINEERING GRAPHICS

(Regulations 2020)

Duration: 3 Hours

Max. Marks: 100

PART - A ($5 \times 20 = 100$ Marks)

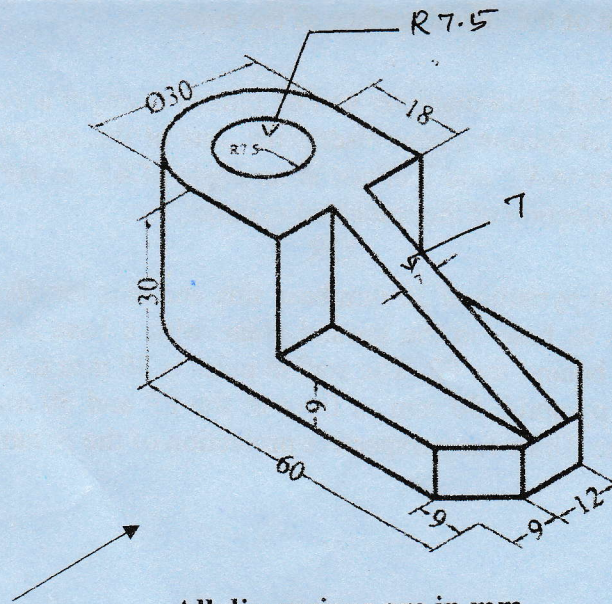
Answer all Questions

Marks,
K-Level, CO

1. a) Construct a hyperbola, given the distance of the focus from the directrix is 50 mm and the eccentricity is 1.5. 20, K2, CO1

OR

- b) Draw free hand sketches of the front, top and side view of the block given below. 20, K2, CO1



All dimensions are in mm

2. a) A line AB 75 mm long is inclined at an angle of 30° to HP and 45° to VP. The point A is 20 mm above HP and 25 mm in front of VP. Draw the projections of the straight line. 20, K2, CO2

K1 - Remember; K2 - Understand; K3 - Apply; K4 - Analyze; K5 - Evaluate; K6 - Create

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OR

- b) A square lamina ABCD of side 40 mm rests on the ground on its corner A in such a way that the diagonal AC is inclined at 45° to HP and apparently inclined at 30° to VP. Draw the projections of the lamina. 20.K2.CO2

3. a) A pentagonal prism of base side 30 mm and axis length 60 mm rest on HP on one of its base edge with its axis is inclined at 30° to HP and parallel to VP. Draw its Projections. 20.K2.CO3

OR

- b) A hexagonal pyramid of base edge 30 mm and height 60 mm rests on one of its base edges on HP. Draw the projections of the pyramid when its base makes an angle of 45° to the HP. 20.K2.CO3

4. a) A cube of side 40 mm is placed and cut by a plane in such a way that the true shape of the section is a regular hexagon. Draw its Sectional view and true shape of the section. Also determine the inclination of the cutting plane with the HP. 20.K3.CO

OR

- b) A cone of base diameter 40 mm and height 70 mm is cut by an inclined plane which meets the axis at a point 25 mm above the base. The cutting plane is inclined at an angle of 60° to HP. Draw the development of the lateral surface of the cone. 20.K3.CO5

5. a) A cylinder of 30 mm diameter and 60 mm axis length is resting on HP on its base. A section plane bisects the axis of the cylinder, which is perpendicular to VP and inclined at an angle of 45° to HP. Obtain the isometric projection of the truncated cylinder. 20.K3.CO6

OR

- b) A pentagonal pyramid of 30 mm base side and axis length of 50 mm is standing on its base on the ground plane with a base side parallel to and 20 mm behind the PP. The station point is 30 mm to the left of the axis of the pyramid, 50 mm in front of the PP and 30 mm above the ground plane. Draw the perspective projection of the pyramid. 20.K2.CO6