

Code No: 181AG

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD

B. Tech I Year I Semester Examinations, March/April - 2023

COMPUTER AIDED ENGINEERING GRAPHICS

(Common to EEE, IT, CSIT, CE(SE), CSE(CS), CSE(DS), CSD)

Time: 3 Hours

Max. Marks: 60

Note: This question paper contains two parts A and B.i) **Part- A** for 10 marks, ii) **Part - B** for 50 marks.

- Part-A is a compulsory question which consists of ten sub-questions from all units carrying equal marks.
- Part-B consists of **ten questions** (numbered from 2 to 11) **carrying 10 marks each**. From each unit, there are two questions and the student should answer one of them. Hence, the student should answer five questions from Part-B.

PART- A**(10 Marks)**

- List out any two modify commands in cad. [1]
- Give some examples for the reduced scale. [1]
- Draw the projections of point E which is 50mm from both the planes and the point is in third quadrant. [1]
- List out the different views in orthographic projections. [1]
- What is the difference between true shape and sectional view? [1]
- List out various cases to section pyramids? [1]
- What is the significance of development of surfaces in industries? [1]
- Write about the development of lateral surface of prism. [1]
- Draw the isometric view of square with side 30mm in any one plane. [1]
- What is the significance of isometric views in industries? [1]

PART-B**(50 Marks)**

- Construct a parabola, when the distance of the focus from the directrix is 50 mm.
- Draw an epicycloid, given the generating circle radius as 20 mm and base circle radius as 60mm. [5+5]

OR

- Construct a scale of 1 :5 to show decimeters and centimeters and to read up to 1 metre. Show the length of 7.6 dm on it.
- Construct a scale of 1.5 cm = 1 dm to read upto 1 metre and show on it a length of 0.6 metre. [5+5]

- 4.a) Draw the projections of a pentagon ABCDE of side 25 mm. The surface is parallel to *VP* and perpendicular to *HP* with one side perpendicular to *HP*.
- b) A line PQ has its end P, 10 mm in front of VP and 15 mm above HP. The other end Q is 50 mm in front of VP. The front view has a length of 70 mm. The distance between the end projectors is 60 mm. Draw the projections of the line. Find its true length and true inclinations. [4+6]

OR

- 5.a) A line MN, 70 mm long has its end M, 10 mm above HP and 15 mm in front of VP. The top and front views of the line have lengths of 60 mm and 40 mm respectively. Draw the projections of the line and find its true inclinations with VP and HP.
- b) A regular pentagon of 30mm side has one side on the ground and its plane is inclined at 45° to H.P and perpendicular to V.P. Draw the projections. [5+5]
- 6.a) A cylinder has 50 mm base and 70 mm long. Its axis is making 30° with VP and 45° with HP. Draw its plan and elevation.
- b) A regular hexagonal lamina of 30 mm side rests on one of its edges on HP. Its plane is inclined at 45° to HP and the edge on which it rests is inclined at 30° to VP. Draw its projections. [5+5]

OR

7. A cone 50 mm base diameter and generators 50 mm long, is resting on its base with its axis perpendicular to the HP. Draw the projections of the cone and develop its surface. [10]
- 8.a) Draw the development of the lateral surface of a right square prism of edge base 25 mm and axis 60 mm long.
- b) Draw the development of the cylinder of base 30 mm diameter and 70 mm length. [5+5]
- OR**
- 9.a) Draw the development of the lateral surface of cone having a base diameter 40mm and axis length 70 mm.
- b) Explain the importance of Wiring, Hemming and Seaming. [5+5]
10. Draw the orthographic view of the following figure 1. All dimensions are in mm. [10]

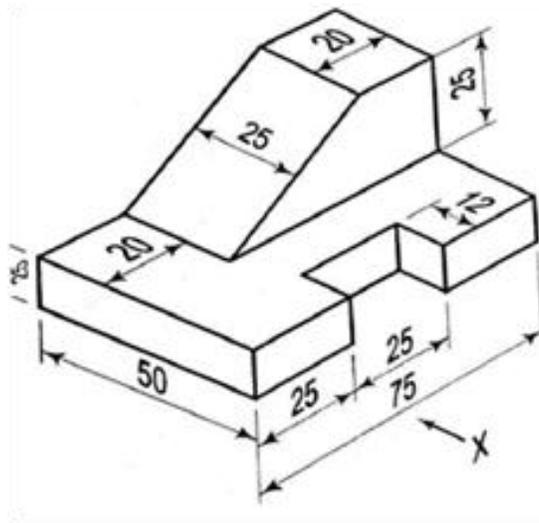


Figure 1
OR

11. Draw the isometric view of the following figure 2. All dimensions are in mm. [10]

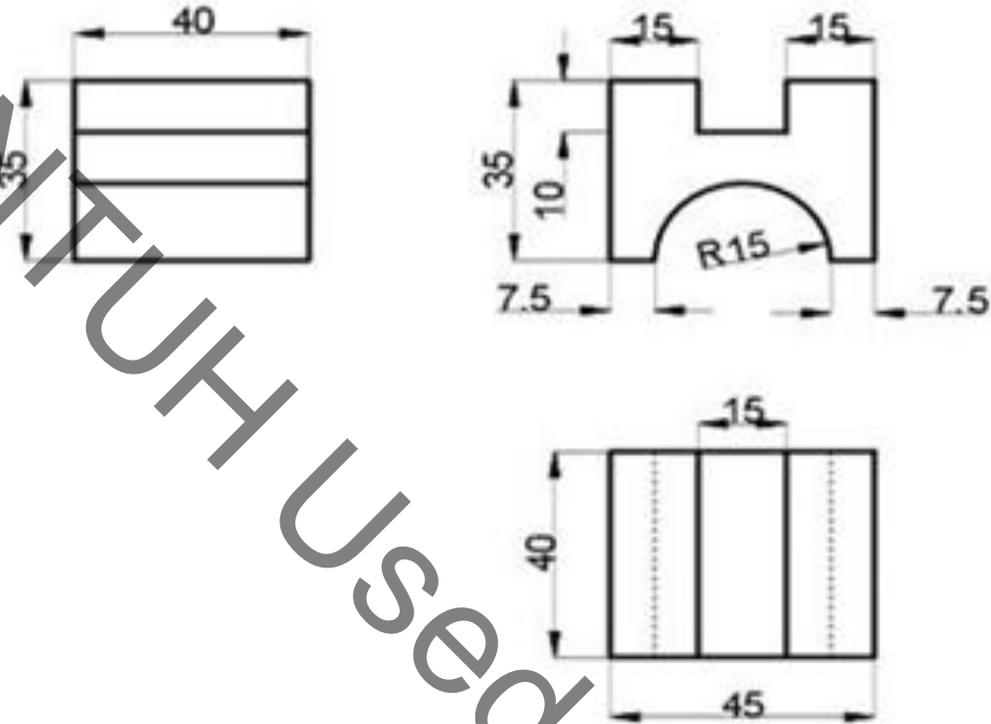


Figure.2

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JNTUHH Used papers 2023