

R22

Code No: 182AV

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD

B. Tech I Year II Semester Examinations, January/February - 2024

COMPUTER AIDED ENGINEERING GRAPHICS

(Common to CSE(AI&ML), CSE(IOT), AI&DS, AI&ML)

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)

- 1.a) What is R.F,if a length of 50 metres represents by 10 cms? [1]
- b) What is meant by eccentricity of curve? [1]
- c) Differentiate between orthographic and iso metric projection? [1]
- d) What is profile plane and mention its use? [1]
- e) What is the shape of view on profile plane, when the axis of the cylinder is parallel to HP & V.P? [1]
- f) Define plane and solid. [1]
- g) What are the applications of development of surfaces? [1]
- h) What are the different methods of development that are used in practice? [1]
- i) What are isometric and non-isometric lines? [1]
- j) What is isometric scale? [1]

PART - B

(50 Marks)

2. Draw the locus of a point on the periphery of a circle of 45 mm. diameter, which rolls on straight line path. Name the curve and draw a tangent and normal to the curve from a point 15 mm above the centre of circle. [10]

OR

3. Draw the curve traced by a point which is moving in such a way that $e = 3/2$ and distance between focus and vertex 30 mm. Draw tangent and normal at any point on the curve. [10]

4. The end 'P' of a line PQ is 20 mm above HP and 25 mm in front of VP. It is inclined at 35° to HP. The top view is 60mm long and inclined at 45° to XY. Draw the projections and find the true length and inclination of line with V.P. [10]

OR

5. A hexagonal plate of side 30 mm is resting on its sides on H.P and inclined at 40° to V.P. The surface of the plate is inclined at 30° to H.P. draw the projections. [10]

