

End-Term Examination (Backlog), April - 2024

Programme : B Tech **Year/Semester** : 1st / 1st
Course Name : Design and Prototyping – I **Course Code** : ES1110
Time : 2:30 Hours **Maximum Marks** : 30

Important Notes:

- Write following information in a box on the TOP RIGHT CORNER of drawing sheet:

Roll No.	
Course Name and Code	
Date of the Exam	
Student Signature	
Invigilator Signature	

- The candidates, before starting to write the solutions, should check the question paper for any discrepancies and ensure that they have delivered the question paper with the correct course code.
- All symbols, unless stated, have their usual meaning in the context of the course.
- All the dimensions are in mm (millimetre).
- Be specific (to the point) in your answers.** Do not elaborate on things unnecessarily.
- If any additional data is required, *assume suitably and state clearly.*

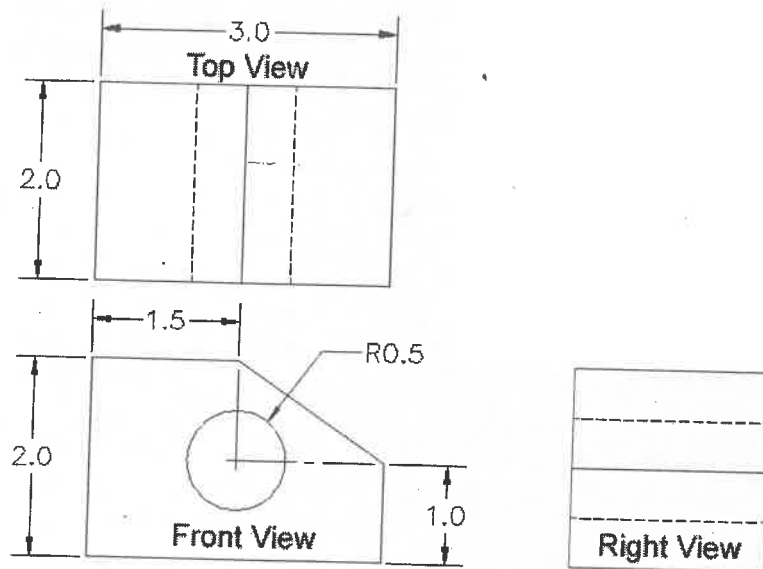
Q. No.	Question	Marks/ CO(s)
Q 1.	What do you understand by design thinking? How is it different from engineering design. Explain with a suitable example.	1+1+3 ES1110.1 ES1110.2
Q 2.	Draw the projections of the following points: a. A, in the H.P. and 10 mm in front of the V.P. b. B, 20 mm below the H.P. and 10 mm behind the V.P. c. C, 15 mm above the H.P. and 20 mm behind the V.P. d. D, 20 mm below the H.P. and 15 mm in front of the V.P. e. E, in both, H.P. and V.P.	0.5×5 ES1110.3
Q 3.	A line AB is 40 mm long. It is inclined to 30° & 60° with HP & VP, respectively. End A of the line is 10 mm above HP and 15 mm in front of VP. Draw projections of the line.	2.5 ES1110.1 ES1110.3
Q 4.	a. What is Computer Aided Design (CAD)? Discuss the advantages and disadvantages of CAD software over instrument (manual) drawing.	2.5 ES1110.4 ES1110.5

- b. Engineering drawing of a part is shown in the figure below. Draw a rough sketch to show the three-dimensional view (3D model) of the part and write steps to create the part in a standard engineering CAD software.

5+2.5

ES1110.1

ES1110.5



- Q 5. Draw the orthographic projections (engineering drawings) of the followings three-dimensional parts:

5+5

ES1110.3

