Reg No:.....
Name :.....

Second Semester FYIMP Computer Science Examination MAY 2025 (2024 Admission onwards) KU02DSCCSE103 (ENGINEERING DESIGN AND PROTOTYPING)

(DATE OF EXAM:30-04-2025)

Time : 120 min

Maximum Marks : 50

Part A (Answer any 4 questions. Each carries 2 marks)

1. Define engineering drawing. 2
2. What are specific applications of engineering drawing for your discipline? 2
3. What is heat deflection temperature? 2
4. Compare Bamboo and Wood. 2
5. What is design thinking? 2
6. What its mean by transparency in ethical design? 2

Part B (Answer any 3 questions. Each carries 6 marks)

7. How can hand sketches be used in the early stages of product design, and why are they important? 6
8. Why it is important to use both hand sketches and engineering drawings at different stages of product development? 6
9. Discuss the statement "Design Thinking puts into practice the principle of "learning by doing". 6
10. Discuss the statement "Design thinking is important in prototyping" 6
11. Discuss the statement "Design thinking is collaborative and multidisciplinary". 6

Part C (Answer any 3 question(s). Each carries 8 marks)

12. Explain briefly the different metal working processes. (8 Marks) 8
13. Examine the significance of prototyping materials. (8 marks) 8
14. Discuss on various wood working operations. 8
15. Explain wood joints with neat sketches. 8

KANNUR UNIVERSITY

DEPARTMENT OF WOOD SCIENCE AND TECHNOLOGY

KU2DSCWST201: ENGINEERING DESIGN AND PROTOTYPING

Time: 1 hr **Total marks: 20**

PART A

Answer any five of the following questions **(5×2 =10)**

1. Compare planning and thickening.
2. Compare jointer plane and router plane.
3. List the types of chisels used in woodworking.
4. Define sanding
5. Discuss on lap joint and its types
6. Define drilling

PART B

Answer any two of the following questions **(2×5 = 10)**

7. Write an essay on advanced woodworking machines.
8. Explain wood joints with neat sketches.
9. Discuss on wood working tools

KU2DSCWST201 ENGINEERING DESIGN AND PROTOTYPING

Time: 1 hr **Total marks: 20**

PART A

Answer **any five** of the following questions (5×2 =10)

1. Define prototyping.
2. Differentiate between high-fidelity and low fidelity prototyping
3. Give examples for application of rubber and silicone as prototyping materials.
4. Comment on ABS
5. Elaborate FDM.
6. Differentiate between drilling and milling processes
7. What are the qualities of a prototype?

PART B

Answer **any two** of the following questions (2×5 = 10)

8. Explain the prototype types.
9. Evaluate the scope and importance of prototyping in your field with relevant examples.
10. Outline the polymer prototyping.