K25FY3242 Pages: 2 Reg No:.....
Name:.....

# Third Semester FYUGP Degree (Reg) Examination November 2025

# KU3DSCFOR202 - WOOD STRUCTURE AND FUNCTIONS

2024 Admission onwards

Time : 2 hours Maximum Marks : 70

## Section A

**Answer any 6 questions. Each carry 3 marks.**

1. List the characteristics of Hardwood & Softwood.
2. Define wood science.
   State any two of its applications in forestry.
3. How can you differentiate heartwood and sapwood based on color.
4. Name one timber common in Kerala that can be identified using microscopic techniques.
5. Name two cells observed under the microscope for wood identification.
6. What is meant by shrinkage in wood?
   Name two types.
7. Write short notes on swelling of wood due to moisture content.
8. Define hardness of wood with an example.

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## Section B

**Answer any 4 questions. Each carry 6 marks.**

9. Prepare a short note with examples on the importance of wood figure in decorative industries
10. Imagine you are teaching a friend how to identify wood species without a microscope.
    Prepare a short guideline using macroscopic features.
11. Prepare a classification chart of the major industrial uses of wood
12. Draw a labeled diagram of Planes of surface of wood
13. Evaluate why the grain orientation of wood is an important factor when assessing its mechanical properties.
14. Draw a labeled diagram showing different types of wood figures

## Section C

**Answer any 2 questions. Each carry 14 marks.**

15. Apply your knowledge to discuss the role of Carbon Sequestration by Wood in mitigating climate change.

16. Suppose you are managing a Forest. How would you balance the ecological roles of wood with its industrial demand?

17. Differentiate between primary xylem and secondary xylem.
Apply your knowledge to explain why only secondary xylem contributes significantly to timber.

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