



KERALA AGRICULTURAL UNIVERSITY
B.Tech.(Food Technology) 2024 Admission
I Semester Final Examination – February 2025

FMP 1114

Workshop Technology (1+2)

Marks: 50
Time: 2 hours

I Fill in the blanks

(10x1=10)

1.materials are commonly used in manufacturing cutting tools due to their hardness.
2. The process of heating and cooling a metal to alter its physical properties is called.....
3. The saw is primarily used for cutting wood in a workshop.
4.is the process of joining metals using a filler material with a melting point below 450°C.
5.materials are used extensively in aerospace due to their high strength-to-weight ratio.

State True or False

6. A dovetail joint is commonly used in carpentry.
7. Arc welding uses a non-consumable electrode.

Answer the following

8. What is normalizing?
9. What is soldering?
10. Define feed and cutting speed.

II Write short notes on ANY FIVE of the following

(5x2=10)

1. Explain the importance of safety measures in workshops.
2. Write a short note on brazing and its applications.
3. What are the different types of carpentry tools? Write with examples.
4. What are the composite materials? Write properties of composites.
5. What are the basic measuring instruments used in workshops?
6. Explain the process of taper turning and step turning on a lathe machine.
7. What is the role of heat treatment in engineering materials?

III Answer ANY FIVE of the following

(5x4=20)

1. Describe the different types of welding techniques and their applications.
2. Explain the process of annealing and its significance in manufacturing.
3. Discuss the various operations performed on sheet metal in workshops.
4. Explain the working principle of a lathe machine and its components.
5. What are the different tools used in forging? Describe their applications.
6. Discuss the preparation and uses of various joints in carpentry.
7. A cylindrical workpiece requires a turning operation with the following parameters:
Length of cut = 150 mm
Number of passes = 2
Feed rate = 0.3 mm/rev
Spindle speed = 600 rpm
Calculate the machining time for the operation

IV Write an essay on ANY ONE of the following

(1x10=10)

1. Discuss the types of engineering materials and their applications in detail.
2. Discuss in detail the different heat treatment processes used in engineering materials. Explain the principles, procedures, and applications of hardening, tempering, annealing, and normalizing.
