

Enroll No

K.E.Society's  
**Rajarambapu Institute of Technology, Rajaramnagar**  
 (An Empowered Autonomous Institute, affiliated to SUK)  
**Unit Test -II (2025-26)**

Q.P.Code
UT 3189

S.Y. B.Tech.-Robotics and Automation Engineering

**Course Code: RA 209 Course Name: Materials and Manufacturing Technology**

Day & Date: *Saturday 20/09/2025*

Time: *11:45 To 12:45*

Max Marks- 25

Instructions: 1) All questions are compulsory.

2) Figures in rounded () brackets within the question, indicate the scheme of marking for respective part of the question, whereas, figures in the first right column indicate total marks for that whole question.

3) CO is the index number of the Course Outcome statement.

4) The Bloom's taxonomy level (BL) for 1,2,3,4,5 and 6 is remember, understand, apply, analyze, evaluate and create respectively.

5) Assume suitable data if necessary.

6) Use of non-programmable calculators is allowed

**Q.1 Answer of the following**

	Marks	BT Level	CO
A Elaborate the terms used in casting with neat sketch	4	2	CO_3
<b>OR</b>			
Differentiate between Semi- Centrifugal Casting and Centrifuging casting.	2		CO_3
B Classify permanent mold casting and suggest suitable type of permanent mold casting for following application, Justify your Choice 1. Spoked wheels 2. Small bushes	4	3	CO_3
C What purpose does grinding operation serves during machining? What are different types of grinding processes?	4	2	CO_3

**Q.2 Answer The Following**

A What is concept of strain hardening? Explain the same with Stress-Strain Diagram.	4	2	CO_3
<b>OR</b>			
What is significance of roll pass sequence? Discuss the factors affecting design of roll pass sequence.	3		CO_3
B Differentiate between forging hammers and forging press.	4	3	CO_3
C Explain hydrostatic extrusion with neat sketch.	5	2	CO_3

