



R20 Regulation

Subject code:3P4CD

**TKR COLLEGE OF ENGINEERING AND TECHNOLOGY**

(Autonomous, Accredited by NAAC with 'A' Grade)

**B.Tech IV Semester Regular Examinations, July 2022**

**Manufacturing process**

(Mechanical Engineering)

**Maximum Marks: 70**

Date:28.07.2022

Duration: 3 hours

Part-A

All the following questions carry equal marks

(10x2M=20 Marks)

- 1 Name the materials used for patterns.
- 2 Mention the functions of gating system.
- 3 Compare welding with soldering.
- 4 What are the limitations of gas welding?
- 5 List the merits of MIG welding.
- 6 Mention a few applications of TIG welding.
- 7 Compare thermosetting and thermo plastics.
- 8 What is angle of bite in rolling?
- 9 Compare hot and cold extrusion.
- 10 List the various tools used in forging.

Part-B

Answer All the following questions.

(10M X5=50Marks)

- 11 Explain the process of investment casting with necessary sketches. [10]  
OR
- 12 Write short notes on (a) properties of moulding sand (b) cupola furnace. [10]
- 13 Describe the basic equipment used for gas welding. Also add a note on forehand and backhand welding techniques. [10]  
OR
- 14 Write short notes on (a) Forge welding (b) Thermit welding. [10]
- 15 Describe the process of explosive welding with a neat sketch. Give the process merits and limitations. [10]  
OR
- 16 Give a detailed account of liquid penetrant testing and magnetic particle testing of weld specimen. [10]
- 17 List and describe the various sheet metal operations with necessary diagrams. [10]  
OR
- 18 Write short notes on (a) Wire drawing (b) Tube drawing. [10]
- 19 Describe the steps in the process of powder metallurgy. Add a note on sintering. [10]  
OR
- 20 Give an account of various defects in forging. [10]