



**R17 Regulation**

**Subject code: 1P4CD**

**TKR COLLEGE OF ENGINEERING AND TECHNOLOGY**

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

**B.Tech II Year II Semester Regular Examinations, May/June 2019**  
**Manufacturing Process**  
(Mechanical Engineering)

Maximum Marks: 70

Duration: 3 hours

- Note:**
1. This question paper contains two parts A and B.
  2. Part A is compulsory which carries 20 marks. Answer all questions in Part A.
  3. Part B consists of 5 Units. Answer any one full question from each unit which carries 10M.
  4. Each question carries 10 marks and may have a, b, c, d as sub questions.

**Part-A**

**All the following questions carry equal marks**

**(10x2M=20 Marks)**

- 1 State any four types of patterns.
- 2 What are different functions of core?
- 3 List out any four Arc welding equipment.
- 4 What are the special features of Thermit welding?
- 5 Write the differences between TIG and MIG welding
- 6 Mention the applications of friction welding.
- 7 What are the four major drawbacks of hot working?
- 8 What is meant by hot and cold spinning?
- 9 Classify the types of extrusion
- 10 List forging defects?

**Part-B**

Answer All the following questions. **(10MX 5=50Marks)**

- 11 A. What are different types of casting processes? (4)  
B. Explain about centrifugal casting with a diagram. (6)

**OR**

- 12 A. What elements make good gating system in a mould? (5)  
B. State three types of gates and their relative advantages (5)
- 13 A. Classify various Arc and Gas welding processes. (5)  
B. Explain about submerged arc welding process with a diagram. (5)

**OR**

- 14 Explain with neat sketch the following electric resistance welding processes: (10)  
a) Percussion welding b) Seam welding
- 15 A. Write the differences between soldering and brazing (3)  
B. What are different welding defects and explain their causes and remedies? (7)

**OR**

- 16 A. What is non-destructive testing of welds? (3)

B. Explain radiography and eddy current method of inspection of metals (7)

17 A. Write the differences between hot working and cold working processes (5)

B. Explain about wire and tube drawing processes with diagrams (5)

OR

18 A. Classify the metal forming processes write its advantages, disadvantages and application.(10)

19 A. Explain why parts produced by forging is preferred when compared to other machining and welding processes (5)

B. Write the differences between hot and cold extrusion process . (5)

OR

20 A. Explain about open die and closed die forging? (5)

B. State the differences between the forward and backward extrusion processes (5)