



R20 Regulation

3E7CC
Subject code: 3E7BD

TKR COLLEGE OF ENGINEERING AND TECHNOLOGY

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

B.Tech VII Semester Supplementary Examinations, April 2024

AUTOMATION IN MANUFACTURING (MECHANICAL ENGINEERING)

Maximum Marks: 70

Date: 23.04.2024 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.
 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 Write the basic elements of an automated system?
- 2 Analyze various types of production system.
- 3 What is industrial control?
- 4 Define barcode technology.
- 5 Write the programmable logic controls.
- 6 Justify the importance of material handling.
- 7 Distinguish between Group technology and flexible manufacturing.
- 8 What are the reasons for Scheduling.
- 9 Identify any two duties of shop floor control.
- 10 Define concurrent engineering.

Part-B

Answer All the following questions.

(5X10M=50 Marks)

- 11 Explain hardware components for automation and process control. [10]
OR
- 12 What is the difference between a closed loop control system and open loop control system? [10]
- 13 Evaluate the importance of recirculating conveyor. [10]
OR
- 14 Explain the automatic identification methods. [10]
- 15 Analyze the components of manufacturing system. [10]
OR
- 16 Explain the automated production lines. [10]
- 17 Explain automated assembly systems. [10]
OR
- 18 Briefly define the two basic types of inspections. [10]
- 19 What is quality control testing as distinguished from inspection? [10]
OR
- 20 What are the manufacturing support systems. [10]