



R18 Regulation

Subject code:2E7CB

# TKR COLLEGE OF ENGINEERING AND TECHNOLOGY

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

## B.Tech VII Semester Supplementary Examinations, December 2024

### WELDING TECHNOLOGY (ME)

Maximum Marks: 70

Date:04.01.2025

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		CO	Bloom Tx
1	Define metal inert gas welding (MIG) process	1	L1
2	What are the types of flames in oxy-acetylene welding process.	1	L1
3	What is Upset Butt Welding?	2	L1
4	Define resistance welding.	2	L1
5	What is solid state welding process?	3	L1
6	Write the advantages of diffusion welding.	3	L1
7	Explain welding automation in nuclear sector.	4	L1
8	What are the industrial applications of narrow gap welding process?	4	L1
9	What are the limitations of Radiographic Inspection?	5	L1
10	What are the factors which are causing distortion?	5	L1

#### Part-B

Answer All the following questions. (5X10M=50Marks)		CO	Bloom Tx
11	Briefly explain the working principle of Metal Inert Gas Welding and their components with a neat sketch? [10M]	1	L2
OR			
12	Explain the carbon welding technique with help of a neat sketch, also mention its applications. [10M]	1	L2
13	Briefly explain the construction and working of Resistance Welding process. [10M]	2	L2
OR			
14	Explain the projection welding process with help of a neat sketch. [10M]	2	L2
15	Explain the principle of Cold Chatter Welding process and list out the applications. [10M]	3	L2
OR			
16	Explain Friction Stir Welding (FSW) process. What are materials that can be welded using this process? [10M]	3	L2
17	Explain operation of Thermit Welding. [10M]	4	L2
OR			
18	Explain welding automation in nuclear sector. [10M]	4	L2

19	Brief explanation of Radiographic Inspection.	[10M]	5	L2
	OR			
20	Write short notes on weldability of Aluminium alloys.	[10M]	5	L2