R20 Regulation *Subject code: 3E6CE*

TKR COLLEGE OF ENGINEERING AND TECHNOLOGY

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

B.Tech VI Semester Supplementary Examinations, November 2025

NON TRADITIONAL MACHINING PROCESS

(ME)

Maximum Marks: 70 Date: 15.11.2025 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.
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)		Marks	CO	BTL
1	List the importance of non-traditional machining process.	2M	1	L1
2	Define ECM process.	2M	1	L1
3	List out the demerits of ultrasonic machining process.	2M	2	L1
4	Define the term Surface finish.	2M	2	L1
5	Write any two points while selection of tool in EDM.	2M	3	L1
6	Write any two names of abrasives in EDM Grinding machining.	2M	3	L1
7	Write any two industrial applications of PAM.	2M	4	L1
8	Define the term Surface finish.	2M	4	L1
9	Define the term MASKANT.	2M	5	L1
10	Write any two Applications of Electric stream drilling.	2M	5	L1

Part-B

Answer All the following questions. (5X10M=50Marks)		Marks	CO	BTL
11	Explain the principle of USM and its equipment. Explain the factors, which influence the MRR in USM.	10M	1	L2
	OR			
12	Explain the Classification of modern machining processes.	10M	1	L2
13	Explain the working principle of Electro Chemical Processes with neat sketch.	10M	2	L2
	OR			
14	Describe the principle and equipment for abrasive Water Jet Machining process in detail with a neat diagram.	10M	2	L2
15	Explain Working principle of EDM with neat sketch.	10M	3	L2
	OR			
16	What are the important process parameters that control the material removal rate in EDM? Explain any four factors.	10M	3	L2
17	Explain the theory of electron beam machining with neat sketch.	10M	4	L2
	OR			

18	Explain the working principle of LBM with neat sketch.	10M	4	L2
19	Explain working principle of PAM with neat sketch.	10M	5	L2
	OR			
20	Explain with neat diagram of shaped tube electrolyte machining.	10M	5	L2