



R18 Regulation

Subject code:2P5CC

# TKR COLLEGE OF ENGINEERING AND TECHNOLOGY

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

B.Tech V Semester Supplementary Examinations, May 2025

## MACHINE TOOLS

(ME)

Maximum Marks: 70

Date: 23.06.2025

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	How do you define tool life?	2M	1	L1
2	What is tool signature?	2M	1	L1
3	What is the principle of working of a lathe	2M	2	L1
4	Write types of lathe	2M	2	L1
5	Define cutting ratio of the shaper.	2M	3	L1
6	Mention any four shaper specifications.	2M	3	L1
7	What is straddle milling?	2M	4	L1
8	What do you mean by Indexing?	2M	4	L1
9	The soft grade grinding wheels are denoted by which letters?	2M	5	L1
10	What is Tool life (in case of grinding wheel)?	2M	5	L1

### Part-B

Answer All the following questions. (5X10M=50Marks)		Marks	CO	BTL
11	Explain briefly about formation of chip.	10M	1	L2
	OR			
12	What are the differences between orthogonal cutting and oblique cutting?	10M	1	L2
13	Explain about types of lathe operations.	10M	2	L2
	OR			
14	Explain about types of lathe operations.	10M	2	L2
15	Explain the construction and working principle of Planner.	10M	3	L2
	OR			
16	Explain the classifications of shaper machines.	10M	3	L2
17	With the help of neat sketch explain the geometry of milling cutter.	10M	4	L2
	OR			
18	Explain about up milling and down milling with neat sketches.	10M	4	L2
19	What is centreless grinding? Explain about external centreless grinding machine.	10M	5	L2
	OR			
20	Discuss the selection procedure of a grinding wheel.	10M	5	L2

(14) Briefly Explain about the Engine lathe

