



R20 Regulation

Subject code:3P6CC

TKR COLLEGE OF ENGINEERING AND TECHNOLOGY

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

B.Tech VI Semester Supplementary Examinations, December 2024

MACHINE TOOLS AND METROLOGY (ME)

Maximum Marks: 70

Date:02.01.2025

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	What is the principle of working of a lathe?	1	L1
2	How do you define tool life?	1	L1
3	How the planer differs from a shaper?	2	L1
4	How many types of chips are formed while machining	2	L1
5	Explain the need for the use of tolerance	3	L1
6	Differentiate between hole basis and shaft basis system	3	L1
7	Differentiate between precision and accuracy	4	L1
8	Give classification of measuring instruments	4	L1
9	Define system error and correction	5	L1
10	What are measurement standards?	5	L1

Part-B

Answer All the following questions. (5X10M=50Marks)		CO	Bloom Tx
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 the working of radial drilling machine with a sketch. [10M]	2	L2
	OR		
14	Explain the working of planning machine with a sketch. [10M]	2	L2
15	Explain about types of lathe operations	3	L2
	OR		
16	Explain the geometry of milling cutters with sketches. [10M]	3	L2
17	Explain the classifications of shaper machines. [10M]	4	L2
	OR		
18	Explain in detail with neat sketches horizontal type of boring machines. [10M]	4	L2
19	Explain the Gear tooth vernier with neat sketch. [10M]	5	L2
	OR		
20	Describe the measuring methods by using sine bar? [10M]	5	L2

