TY

CA1

MGM University

Jawaharlal Nehru Engineering College, Chh Sambhajinagar

CA 1 Assignment – Feb- 2024

Program : TY -B. Tech in _Mechanical Engg. Sem: IV

Course Name: Tool Design Subject Code: 20UME604E

Max Marks: 20 Date:- 01/02/2024 Duration:- 1 Hr

Instructions to the students

1. All questions are compulsory
2. Draw neat sketch wherever required
3. Assume suitable data wherever required

Q No		C.O	B.L	
Q 1	With the neat sketch explain how is metal cutting mechanism with single point cutting tool?	1	2	
Q 2	With neat sketch explain the tool geometry specifying the significance of each angle	1	2	
Q 3	During machining in what different forms chips are formed and what are different factors affecting different chip formation ? and how is the effect of these factors on chip formation.	1	2	
Q 4	Classify metal cutting process. Differenciate between orthogonal and oblique cutting.	1	2	
Q 5	With a neat sketch of Merchants force analysis circle develop the relationship of different forces in terms of Fc and Ft.	1	3	
Q 6	What are different tool materials ? explain them.	1	2	
Q 7	What is cutting fluids? What are its property requirements	1	2	

15 MAR 2024 15 MAR 2024/TY/MECH/CA-1/P2/23-24

TY -CAI

MGM UNIVERSITY, JAWAHARLAL NEHRU ENGINEERING COLLEGE, AURANGABAD

Mechanical Dept.

Continuous Assessment -I

Class: - TY– Mech

Subject: - MD-II

Time: - Submit on or before 5/02/ 2024

Date: - 01 /02/2024

	CO Level
Q. 1 Explain with failure of gear tooth	01
Q. 2. Explain the criteria selection of gear material	01
Q. 3 Derive the design for strength of spur gear tooth: Lewis Equation	01
Q. 4 Comparisons between Spur gear and Helical Gear	01
Q. 5 Explain Formative number of teeth in helical gears.	01
Q. 6 Derive the design for strength of helical gear beam	01

Rubrics

(CA-I Assessment)

Sr. No	Details	Marking scheme
1	Submission on or before 05/02/ 2024	06 Marks
2	Neatness	02 Marks
3	Oral Question & Answers	02 Marks

Subject Teacher

15 MAR 2024/TY/MECH/CA-1/P2/23-24

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