Ramaiah Institute of Technology

(Autonomous Institute, Affiliated to VTU)
Department of Mechanical Engineering

Program: UG
Term: 1st June 2023 to 9th September 2023
Course: Introduction to Mechanical Engineering
Course Code: ESC234
CIE: I **Semester:** II **Section:** 1-8 **Max Marks:** 30 **Time:** 1Hr
Lesson Plan No's: 1 to 20

Instruction to Candidates: Answer **any two** full questions

Sl.No.		Question	Marks	CO	Blooms Level
1	a	What is the role of mechanical engineering in the energy and manufacturing sectors	05	CO1	L1
	b	What is nuclear fission reaction and Explain with a neat sketch Nuclear power plant	10	CO1	L2
2	a	Explain in brief various applications of steam in industries	05	CO1	L2
	b	Explain the following operations with neat sketch i). Thread cutting in lathe ii). Boring in drilling machine iii). Reaming in drilling machine iv). End milling	10	CO2	L2
3	a	What are the advantages and applications of the CNC machines	06	CO2	L1
	b	Find the enthalpy of 6kg of steam at a pressure of 10 bar absolute, if it is i). Wet with a dryness fraction of 0.9 ii). Dry saturated iii). Superheated at the temperature of 200^0C. Assume the specific heat of steam as 2.3 kJ/Kg K	05	CO1	L3
	c	Explain with a neat sketch the working principle of milling	04	CO2	L1

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