Discipline:- MECHANICAL ENGG.	SEM:- 6TH	Name of Teaching Faculty:- MANASWINI KAR
SUB:- Advance Manufacturing & CAD/CAM	No of Days /per week class allotted:-4	Semester From Date:-14.02 .2023 To Date:-23.05.2023 No of Weeks:-15
Week	Class Day	Theory Topics
1ST	1st	Introduction, Traditional & Nontraditional machining process
	2nd	Working principle of Electro chemical machining process
	3rd	Advantages, disadvantages and area of application of Electro chemical machining process
	4th	Working principle of Electro discharge machining process
2ND	1st	Advantages, disadvantages and area of application of Electro discharge machining process
	2nd	Working principle of Plasma arc machining process
	3rd	Advantages, disadvantages and area of application of Plasma arc machining process
	4th	Working principle of Laser beam machining process
3RD	1st	Advantages, disadvantages and area of application of Laser beam machining process
	2nd	Working principle of Abrasive jet machining process
	3rd	Advantages, disadvantages and area of application of Abrasive jet machining process
	4th	Working principle of Electron beam machining process
4TH	1st	Advantages, disadvantages and area of application of Electron beam machining process
	2nd	Discussion of Chapter-1 & Assignment Questions
	3rd	Automation, need for Automation
	4th	List types of Automation
5TH	1st	Assignment Questions

	2nd	Numerical control , Difference between conventional & NC m/c tools
	3rd	NC system with block diagram
	4th	Continue…. NC system with block diagram
6TH	1st	Types of NC co-ordinate: Point – to – point, Straight Cut, and Contouring
	2nd	NC part programming: G code
	3rd	NC part programming: M-code
	4th	Machine Zero, Work zero, Tool zero & Tool offset
7TH	1st	Processing of plastics.
	2nd	Processing of plastics.
	3rd	Extruding; Casting; Calendering.
	4th	Extruding; Casting; Calendering
8TH	1st	Extruding; Casting; Calendering
	2nd	Moulding processes: Injection moulding, Compression moulding, Transfer moulding
	3rd	Moulding processes: Injection moulding, Compression moulding, Transfer moulding
	4th	Moulding processes: Injection moulding, Compression moulding, Transfer moulding
9TH	1st	Fabrication methods-Sheet forming, Blow moulding, Laminating plastics (sheets, rods & tubes), Reinforcing
	2nd	Fabrication methods-Sheet forming, Blow moulding, Laminating plastics (sheets, rods & tubes), Reinforcing
	3rd	Applications of Plastics
	4th	Assignment Questions
10TH	1st	Flexible Manufacturing System (FMS)
	2nd	Need for FMS
	3rd	Components of FMS:-Processing Station

	4th	Introduction, Need for Additive Manufacturing
11TH	1st	Fundamentals of Additive Manufacturing, AM Process
	2nd	Classification of AM process, Fundamental Automated Processes,
	3rd	Distinction between AM and CNC,
	4th	other related technologies.Discussion of Chapter- 5
12 TH	1st	Assignment Questions and answer
	2nd	Web Based Rapid Prototyping Systems
	3rd	Concept of Flexible manufacturing process
	4th	, concurrent engineering,
13 TH	1st	production tools like capstan and turret lathes,
	2nd	rapid prototyping processes.Concept
	3rd	General elements of SPM
	4th	Productivity improvement by SPM
14 TH	1st	Principles of SPM design
	2nd	Model question and answer practice set 1(short question)
	3rd	Model question and answer practice set 2(short question)
	4th	Model question and answer practice set 3(short question)
15 TH	1st	Model question and answer practice set 1(long questions)
	2nd	Model question and answer practice set 2(long questions)