

Discipline :-  
Mechanical

Semester :- 6th

Name of the Faculty :-  
Er. Ganesh Chandra Panda

Subject :-  
AMP

No of Days/  
class Allotted :- 05

Semester  
From :- 14/02/23  
To :- 23/05/23.

Week	class Day	Theory Topics
14th Feb to	1st	Introduction to Modern machining Process and comparison with traditional machining.
17th Feb	2nd	Principle of ultrasonic machining
	3rd	Description of equipment of USM
	4th	----- / Moha shiva Patra -----
	1st	Advantages & Disadvantages and application of USM.
20th Feb to	2nd	Principle & Description of equipment of electric discharge machining (EDM)
25th Feb	3rd	Process parameters, Output characteristics of EDM.
	4th	Dielectric fluid, tools (electrode) of EDM
	5th	Advantages, disadvantages and application of EDM.
	1st	Principle & Description of equipment of wire cut EDM.
27th Feb to	2nd	controlling Parameters and application of wire cut EDM.
4th Mar	3rd	Principle & Description of equipment of Abrasive jet machining (AJM)
	4th	Material Removal rate (MRR) and application of AJM.
	5th	Principle and description of equipment of Laser beam machining (LBM)

Week	Class Day	Theory Topics
06th Mar to	1st	Material removal rate (MRR) and application of LBM
11th Mar	2nd	Holi
	3rd	Principle and description of equipment of Electro chemical machining (ECM)
	4th	Material removal rate (MRR) and application of ECM.
	5th	Principle and description of equipment of plasma arc machining (PAM)
	1st	Material removal rate (MRR) and Process parameters of PAM
	2nd	Performance characterization and application of PAM.
13th Mar to	3rd	Principle and description of equipment of electron beam machining (EBM)
18th Mar	4th	Material removal rate (MRR) and process parameters of EBM.
	5th	Performance characterization and application of EBM.
	1st	Revision of 1st chapt. & discussion of some important question
	2nd	class test of 1st chapt.
	3rd	Introduction of plastic processing.
20th Mar to	4th	Moulding process; Injection moulding
25th Mar	5th	compression moulding, Transfer Moulding.

Week	Class Day	Theory Topics
	1st	Extruding, casting
	2nd	calendering, some discussion
27th Marc	3rd	Ras Navami
to	4th	Revision of study & some questions
01st Apr		
	3th	uktal divas
	1st	Fabrication methods - sheet forming
03rd Apr	2nd	Blow moulding, Laminating plastic (sheets, rods and tubes)
to		
08th Apr	3rd	Reinforcing
	4th	Good Friday
	5th	Application of plastics
	1st	Introduction of Additive manufacturing process, discussion of previous chapt.
10th Apr		
to	2nd	Revision of previous chapt.
15th Apr	3rd	Need of Additive Manufacturing
	4th	Maha visubarsankranti
	5th	Fundamental of additive manufacturing
	1st	AM process chain
	2nd	Advantages and Limitation of AM.
17th. Apr	3rd	classification of AM process, distinction bet <sup>n</sup> AM and other related technology.
to		
22nd Apr	4th	Application of AM in design and aerospace industry.
	5th	Pd-ul-fitra

Week	Class Day	theory Topics
	1st	Application of AM in auto-motive industry, Jewellery industry, in art
24th Apr -10	2nd	Application of AM in R.P medical & Bio engineering.
29th Apr	3rd	Web based Rapid prototyping Systems.
	4th	concept of flexible manufacturing system.
	5th	concurrent engineering,
	1st	Production tools like capstan and turret lathe.
	2nd	Rapid prototype process.
01st May to	3rd	Discussion of previous chapt & Do some questions.
06th May	4th	<del>Budha Perimeter</del>
	5th	General elements of SPM. concept & introduction of SPM. productivity improvement by SPM
08th May to	1st	Principle of SPM design
	2nd	Maintenance of machine tools.
13th May	3rd	Revision of previous chapt
	4th	class test of previous study
	5th	Types of maintenance, Repair cycle analysis

