

GOVERNMENT POLYTECHNIC JAJPUR

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DEPARTMENT OF MECHANICAL ENGINEERING

LESSON PLAN (2022-23)

Discipline: Metallurgical Engg	Semester: 3rd	Name of the Teaching faculty: Manas Kumar Mishra		
Subject: Workshop II	No of Days/Week class allotted: 2	Semester from Date: 15/09/22 To Date: 22/12/22 No of weeks: 16		
Week	Class Day	Topics		
1st	1st (2p), Gr1&2	Syllabus, Lesson plan, Course outcomes, exams, Tests i) Shop talk on different types of machine tools ii) Parts and Functions of various machines		
	2nd (2p), Gr1&2	i) Different types of tools used in machine shop ii) functions and demonstration		
2nd	1st (2p), Gr1&2	i) General safety practice to be followed inside workshop ii) Record ckecking, viva		
	2nd (2p), Gr1&2	i) Study of a center lathe ii) parts and their functions		
3rd	1st (2p), Gr1&2	i) Operations on a center lathe ii) Record ckecking, viva		
	2nd (2p), Gr1&2	i) Demonstration of operations like facing, turning, parting ii) Safety to be followed iii) Facing, Turning, Parting practice to be performed by students		
		4th	1st (2p), Gr1&2 i) Facing, Turning, Parting to be performed by students on a given cylindrical Job 2nd (2p), Gr1&2 i) Facing, Turning, Parting to be performed by students on a given cylindrical Job	
5th	1st (2p), Gr1&2	i) Facing, Turning, Parting to be performed by students on a given cylindrical Job		
	2nd (2p), Gr1&2	i) Taper turning Demonstration ii) Taper turning operation to be performed by students		
6th	1st (2p), Gr1&2	ii) Taper turning operation to be performed by students ii) Assessment of the Job iii) Record checking		
		2nd (2p), Gr1&2	i) Study of a driiling machine ii) Various parts iii) Types of drilling machine iv) Difference between drilling and boring, drill tools	
			7th	1st (2p), Gr1&2
	2nd (2p), Gr1&2			i) driiling and counter boring operation by students
8th	1st (2p), Gr1&2		i) driiling and counter boring operation by students ii) Assessment of the Job, Record checking	
	2nd (2p), Gr1&2	i) Demonstration of Milling operations		

9th	1st (2p), Gr1&2	i) Demonstration of Shaper
	2nd (2p), Gr1&2	i) Demonstration of grinding operation
10th	1st (2p), Gr1&2	i) Types of pattern
		ii) Pattern allowances
iii) Preparation of a simple wooden pattern in carpentry shop		
	2nd (2p), Gr1&2	i) Preparation of a simple wooden pattern in carpentry shop
11th	1st (2p), Gr1&2	i) Preparation of a simple wooden pattern in carpentry shop
	2nd (2p), Gr1&2	ii) Assessment of the Job, Record checking
12th	1st (2p), Gr1&2	i) composition of green sand mould
		ii) preparation of a green sand mould by using wooden pattern
	2nd (2p), Gr1&2	i) preparation of a green sand mould by using wooden pattern
		ii) Assessment of the Job, Record checking
13th	1st (2p), Gr1&2	i) Arc welding principle
		ii) Tools and equipments used
		iii) safety measures
		iv) Electrodes
	2nd (2p), Gr1&2	i) Demonstartion of Arc welding process
		ii) Arc welding practice on scraps by students
14th	1st (2p), Gr1&2	i) Demonstration of Gas welding
		ii) Tools and equipments used
		iii) Practice by students
	2nd (2p), Gr1&2	i) Demonstration of TIG and MIG
		ii) Practice by students
15th	1st (2p), Gr1&2	i) Assessment of the Job, Record checking
	2nd (2p), Gr1&2	i) Any leftout practicals to be performed ii) Lab Test

Signature of the faculty