GOVERNMENT POLYTECHNIC, NABARANGPURDEPARTMENTOFMECHANICAL ENGINEERING

Discipline: **MECHANICAL ENGG**	Semester: **5TH**	NameoftheTeachingFaculty: DEEPAK RANJAN PATTNAIK.
Subject: **CAD/CAMLAB**	No.ofdays/ perweek classallotted:04	SemesterFromdate:15.09.2022 ToDate: 21/01/2023 No.ofWeeks:13
COURSEOUTCOMES	**CO1**.Tounderstandthefundamentalsanduseof CAD. **CO2**.ToconceptualizedraftingandmodellinginCAD. **CO3**.Tointerpretthevarious features inthemenu ofsolidmodellingpackage. **CO4**.Tosynthesizevarious partsorcomponentsinan assembly. **CO5**..TopreparecNCprogrammes forvariousjobs.	

WEEK	CLASS DAY	Theory/PracticalTopics
1ST	1	**1.PART–AINTRODUCTION** Partmodelling,Datumplane,Datumplane;constraint;dimensioning.
	2	Extrude;revolve; sweep;protrusion;extrusion.
	3	Rib; shell;hole;round;chamfer
	4	Rib;shell;hole;round;chamfer(Contd…)
2ND	1	Copy; mirror;assembly;align;orient.
	2	**2DDRAWINGS** Rectangle,circle,polygonanditsdimensioning.
	3	Rectangle,circle,polygonanditsdimensioning(Contd…)
	4	Rectangle,circle,polygonanditsdimensioning(Contd…)
3RD	1	**3 DDRAWING** Gibandcutterjoint
	2	Gibandcutterjoint(Contd…)
	3	Gibandcutterjoint(Contd…)
	4	ScrewJack
4TH	1	ScrewJack(Contd…)
	2	ConnectingRod
	3	ConnectingRod
	4	BearingBlock.
5TH	1	BearingBlock.
	2	BearingBlock(Contd…)
	3	ConnectingRod(Contd…)
	4	ConnectingRod(Contd…)
6TH	1	**PART-BCNCProgramming andMachining** StudyofCNClathe, milling
	2	StudyofCNClathe,milling(Contd…)
	3	Studyofinternationalcodes;G-Codes andM–Codes.
	4	Studyofinternationalcodes;G-Codes andM–Codes (Contd…)
7TH	1	Format–Dimensioningmethods.
	2	Format–Dimensioningmethods.
	3	Programmewriting–TurningSimulator-Millingsimulator ISpractice-commands

		menus.
	4	Programmewriting–TurningSimulator-Millingsimulator ISpractice-commands menus.
8TH	1	Programmewriting–TurningSimulator-MillingsimulatorISpractice-commands menus(Contd…)

	2	Programmewriting–TurningSimulator-Millingsimulator ISpractice-commands menus(Contd…)
	3	EditingtheprogrammeintheCNCMACHINES.
	4	EditingtheprogrammeintheCNCMACHINES.
9TH	1	EditingtheprogrammeintheCNCMACHINES.
	2	ExecutetheprogrammeintheCNCmachines.
	3	ExecutetheprogrammeintheCNCmachines.
	4	ExecutetheprogrammeintheCNCmachines.
10TH	1	PrinttheprogrammeandmakethecomponentintheCNCmachine.
	2	PrinttheprogrammeandmakethecomponentintheCNCmachine.
	3	PrinttheprogrammeandmakethecomponentintheCNCmachine.
	4	PrinttheprogrammeandmakethecomponentintheCNCmachine.
11TH	1	Using cannedcycle-createapartprogrammeforthreadcutting,groovingand producecomponentintheCNCTurningMachine.
	2	Using cannedcycle-createapartprogrammeforthreadcutting,groovingand producecomponentintheCNCTurningMachine.
	3	Using cannedcycle-createapartprogrammeforthreadcutting,groovingand producecomponentintheCNCTurningMachine.
	4	PrinttheprogrammeandmakethecomponentintheCNCmachine(Contd…)
12TH	1	Using cannedcycle-createapartprogrammeforthreadcutting,groovingand producecomponentintheCNCTurningMachine(Contd…)
	2	Using cannedcycle-createapartprogrammeforthreadcutting,groovingand producecomponentintheCNCTurningMachine(Contd…)
	3	Using cannedcycle-createapartprogrammeforthreadcutting,groovingand producecomponentintheCNCTurningMachine(Contd…)
	4	PrinttheprogrammeandmakethecomponentintheCNCmachine(Contd…)
13TH	1	PrinttheprogrammeandmakethecomponentintheCNCmachine(Contd…)
	2	UsingLinearinterpolationandCircularInterpolation-Createapartprogrammefor groovingandproducecomponentintheCNCMillingMachine
	3	Usingcannedcycle-createapartprogrammeforthreadcutting,groovingandproducecomponentintheCNCTurningMachine(Contd…)
	4	Using cannedcycle-createapartprogrammeforthreadcutting,groovingand producecomponentintheCNCTurningMachine(Contd…) UsingLinearinterpolationandCircularInterpolation-Createapartprogrammefor groovingandproducecomponentintheCNCMillingMachine(Contd…)

Sign.OfFacultyconcerned 15/9/22

Academic coordinator 15/09/22

Sign.OfHOD 15/9/2022

Principal,GPNABARANGPUR 15/9/22