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P.E.S. College of Engineering, Mandya - 571 401

(An Autonomous Institution affiliated to VTU, Belagavi)

Fifth Semester, B.E. - Automobile Engineering

Semester End Examination; Feb. - 2021

Simulation Lab (Technical Skills - I)

Time: 2 hr. *Max. Marks: 50*

Course Outcomes

The Students will be able to:

CO1: Build solid model of simple machine parts using Master CAM package.

CO2-4: Demonstrate simulation of Turning, Drilling, Milling using software.

CO5: Simulate using simulation packages like Master CAM or any equivalent software.

***Note: All** questions are **compulsory** and each question carries **TWO** marks.*

Q. No.	Questions	BLs	COs	POs
1.	What file type Does Master Cam Use?	L1	CO1	PO1
2.	Feed is measured in units of a) Velocity b) Length c) Length / Revolution d) degree / rev	L1	CO1	PO3
3.	In computer Aided Drafting practice an arc is defined a) Two end points only b) Centre and radius c) Radius and one end point d) Two end points and center	L1	CO1	PO3
4.	Which of the following is not an analytical entity a) Line b) Circle c) Spline d) Calculate	L1	CO1	PO1
5.	BOM structure is used to calculate a) Due date b) Net Requirement c) Man Power requirement d) All of the above	L1	CO1	PO3
6.	MRP input requires a) MPS b) BOM c) Inventry file d) All of the above	L1,2	CO2	PO1
7.	Dwell is defined by a) GO4 b) GO3 c) GO2 d) GO1	L1	CO2	PO1
8.	M30 stands for a) End of Program b) End of block c) End of Tape and Tape rewind d) Coolant On / Off	L1	CO2	PO3
9.	Coolant off in CNC a) MOS b) MOE c) MO7 d) MO9	L1	CO2	PO2
10.	Command GOO means a) Feed motion in circular Path b) Raped motion c) Feed motion in strength line d) Solve motion	L1	CO2	PO2
11.	The axes of turning Machine arc a) Z & Y axis b) X & Y axis c) Z ,Y, Z axis	L1	CO3	PO1
12.	Rotation about Z axis is called a) a axis b) b axis c) c axis d) none of the above	L1	CO3	PO2
13.	NC Contouring is an example of a) Continuous path Partitioning b) Point to Point Portioning c) Absolute Partitioning d) Incremental Partitioning	L1	CO3	PO2

Contd… 2

14.	The repeatable of NC machine depends on a) Control loop errors b) Mechanical errors c) Electrical errors d) None of the mentioned	L1	CO3	PO3
15.	In a point to point type of NC system a) Control of position and velocity of the tool is essential b) Control of only Position of the tool is sufficient c) Control of only velocity of the tool is sufficient d) Neither Position nor velocity need to be controlled	L1	CO3	PO2
16.	The tool of an NC Machine has to move along a circular are from (5, 5) to (10, 10) while performing an operation. The Centre of the arc is at (10, 5) which one of the following NC tool path commands performs the above mentioned operation? a) NO10 GO2 X10 X5 Y5R5 b) NO10 GO3 X10 Y10 X5 Y5 R5 c) NO10 GO2 X5 Y5 X10 Y10 R5	L1	CO4	PO2
17.	In a CAD Package mirror image of a 2D point p(5 , 10) is to be obtained about a line which through the origin and makes an angle of 45° Counter clockwise with the X-axis, the coordinates of the transformed point will be a) (7.5, 5) b) (10, 5) c) (7.5, –5) d) (10, –5)	L1,2	CO4	PO1
18.	In a 2-D CAD package, clockwise circular are of radius 5, Specified from P1(15, 10) to P2(10, 15) will have its Centre at a) (10, 10) b) (15, 10) c) (15, 15) d) (10, 15)	L1	CO4	PO1
19.	The number of lines required to represent a cubi in a were forms model is a) 8 b) 6 c) 12 d) 16	L1	CO4	PO1
20.	CNC drilling machine is considered to be a a) Point to Point controlled machine b) Straight path controlled machine c) Continuous Path controlled machine d) Screw Controlled machine	L1	CO4	PO3
21.	The last motion in CNC machine tool is on amount of a) backlash in gearing b) Wind-up of drive shafts c) Deflection of machine tool members d) All the above	L1	CO5	PO2
22.	CNC machine are not normally operated. They are controlled by means of a a) Program b) Operator c) Cam d) Plug board System	L1	CO5	PO1
23.	In a CNC program block NOO2 GO2 G91 X40 Z40….., GO2 And G91 refer to a) Circular interpolation in Counterclockwise direction and incremental dimension b) Circular interpolation in Counterclockwise direction and absolute dimension c) Circular interpolation in clockwise direction and absolute dimension	L1	CO5	PO1
24.	The following is not a graphics started a) GKS b) IGBS c) UNIX d) PHIGS	L1	CO5	PO1
25.	The number of tangent required to described cubic splines is a) 2 b) 1 c) 3 d) 4	L1	CO5	PO1

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