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Code No. : 16537

VASAVI COLLEGE OF ENGINEERING (AUTONOMOUS), HYDERABAD

Accredited by NAAC with A++ Grade

B.E. (Mech. Engg.) VI-Semester Main & Backlog Examinations, June-2022

CAD/CAM

Time: 3 hours

Max. Marks: 60

Note: Answer all questions from Part-A and any FIVE from Part-B

Part-A (10 × 2 = 20 Marks)

Q. No.	Stem of the question	M	L	CO	PO
1.	List the advantages of parametric representation.	2	1	1	1
2.	What are the various continuity requirements of composite curves?	2	1	1	2
3.	What is Coons patch?	2	1	2	1
4.	Define concatenated transformation.	2	1	2	2
5.	List the drawbacks of NC	2	1	3	1
6.	What are the preparatory functions?	2	1	3	1
7.	Classify CNC types of motion control.	2	2	4	1
8.	List the programming languages used for robotics	2	1	4	1
9.	List out the stages in Group Technology.	2	1	5	2
10.	What are the various techniques used for 3D printing?	2	1	5	2
Part-B (5 × 8 = 40 Marks)					
11. a)	Distinguish between approximation and interpolation curves with examples.	3	4	1	3
b)	Explain the Bezier curve with it's properties.	5	2	1	4
12. a)	Discuss tabulated cylinder and surface of revolution.	3	4	2	3
b)	Find the new co-ordinates of a line with end points (10,20) mm and (30,40) mm when it is rotated about the point (15,15) mm.	5	2	2	4
13. a)	Discuss cutter radius compensation in NC programming.	3	4	3	3
b)	Explain canned cycle and discuss it, using an example program.	5	2	3	3
14. a)	List the conditions where Adaptive CNC control is preferred.	3	1	4	1
b)	Classify robots according to configuration.	5	2	4	2

Contd... 2

15. a)	List the methods used for classification of parts in GT.	3	1	5	1
b)	Explain Generative CAPP.	5	3	5	2
16. a)	Discuss computer aided product cycle.	4	4	1	3
b)	Distinguish between B-rep and C-rep solid modeling techniques.	4	3	2	4
17.	Answer any two of the following:				
a)	Discuss elements of NC.	4	4	3	3
b)	Distinguish between CNC and DNC.	4	3	4	3
c)	Discuss elements of CIM.	4	2	5	4

M : Marks; L: Bloom's Taxonomy Level; CO; Course Outcome; PO: Programme Outcome

i)	Blooms Taxonomy Level – 1	26.25%
ii)	Blooms Taxonomy Level – 2	32.50%
iii)	Blooms Taxonomy Level – 3 & 4	41.25%
