KUMARAGURU college of technology
character is life

Register Number:……..…

M.E DEGREE EXAMINATIONS: JUNE 2015

(Regulation 2014)

Second Semester

CAD/CAM

P14CCT203: Computer Applications in Design

Time: Three Hours **Maximum Marks: 100**

Answer all the Questions:-

PART A (10 x 1 = 10 Marks)

1. DDA Algorithm is used for creation of [K_1]

   a) Circle b) Line

   c) Ellipse d) Point

2. The transformation alters the size of the object is known as [K_2]

   a) Rotation b) translation

   c) scaling d) clipping

3. Bezier curve is smoother because, it has _____ [K_1]

   a) Lower order derivatives. b) Medium order derivatives.

   c) Higher order derivatives. d) Zero order derivatives.

4. Match the following : [K_2]

List I	List II
A. Primitives	i. Geometry of object
B. Solid modeling.	ii. B-Spline curves.
C. synthetic curves	iii. Set theory.
D. Surface modeling	iv. Torus.

   a) A-II,B-III,C-II,D-IV b) A-IV,B-III,C-II,D-I

   c) A-I,B-IV,C-III,D-II d) A-III,B-II,C-IV,D-I

5. Model clean-up is related with [K_2]

   a) Visual realism. b) Assembly of parts.

   c) Graphic standard. d) Output primitives.

6. Which one of the following represents a color model? [K_1]

a) RGB model. b) HGB model.

c) ABC model. d) SBC model.

7. Tolerance analysis is some time known as [K_4]

a) Design procedure. b) Design modeling.

c) Design step. d) Design assurance.

8. (i) Mass property calculation involves masses, centroids and inertia properties. [K_2]

(ii) It usually involves evaluating various integrals.

a) Both are relevant and true. b) Both are relevant (i) true and (ii) false.

c) Both are relevant (i) false and (ii) true. d) Both are irrelevant and false.

9. The general structure of IGES File as follows: [K_1]

(i) Parameter data (ii) Global section (iii) start section (iv) direct entry section.

The correct sequence of the components is

a) ii-iii-i-iv b) iii-ii-iv-i

c) i-ii-iii-iv d) iii-i-ii-iv

10. In graphic standards, GKS means [K_1]

a) Graphics Kernal System. b) Graphics Key System.

c) Geometry Kernal System d) German Kernal System.

PART B (10 x 2 = 20 Marks)

11. List the algorithm used to generate line and circle. [K_1]
12. What does clipping mean? [K_2]
13. Define coons patch. [K_1]
14. Mention few advantages and disadvantages of surface modeling. [K_1]
15. Write short notes on Model Cleanup. [K_2]
16. Define shading. [K_1]
17. Give the basic property required for calculation of mass property. [K_1]
18. Define simulation. [K_1]
19. List the various graphics standards used for CAD [K_1]
20. What are the salient features of GKS? [K_2]

PART C (6 x 5 = 30 Marks)

21.	Describe the Bresenham's line algorithm with example.	[K_2]
22.	Give the practical applications of B-spline and Bezier curve.	[K_1]
23.	Describe volume modeling.	[K_2]
24.	What is coherence? What are its different types?	[K_1]
25.	Describe the structure of an IGES file.	[K_2]
26.	Explain tolerance analysis.	[K_2]

PART D (4 x 10 = 40 Marks)

27.	Write a short note on scaling and rotation.	[K_2]
28.	Explain boundary representation and constructive solid geometry with suitable sketches.	[K_2]
29.	Write a brief note on a) Phong shading b) Gourand shading.	[K_1]
30.	Illustrate the mechanism simulation with example.	[K_4]

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