

Reg No.: _____

Name: _____

APJ ABDUL KALAM TECHNOLOGICAL UNIVERSITY
THIRD SEMESTER MCA DEGREE EXAMINATION, DECEMBER 2017

Course Code: RLMCA387

Course Name: COMPUTER GRAPHICS

Max. Marks: 60

Duration: 3 Hours

PART A

Answer all questions, each carries 3 marks.

		Marks
1	Explain Midpoint circle algorithm.	(3)
2	Write a short note on Two-dimensional viewing pipeline.	(3)
3	Explain plane equation.	(3)
4	Explain vanishing point.	(3)
5	Write a short note on Interpolation and Approximation splines.	(3)
6	Explain Three dimensional rotations.	(3)
7	What is Transparency?	(3)
8	What is Phongspecular-reflection model?	(3)

PART B

Answer six questions, one full question from each module and carries 6 marks.

Module I

9	Differentiate between Raster-Scan and Random-Scan Displays.	(6)
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OR

10	With a suitable example, explain Bresenham's line drawing algorithm.	(6)
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Module II

11	Write a short note on Two-dimensional transformations.	(6)
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OR

12	With a suitable example, explain Cohen-Sutherland line clipping method.	(6)
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Module III

13	Discuss the various Boundary representation scheme for solid object used in three dimensional graphics.	(6)
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OR

14	Briefly explain the display surfaces generated from functional descriptions.	(6)
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Module IV

15	Briefly explain about Graphical user interface.	(6)
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OR

16	Differentiate between Parallel and Perspective projections.	(6)
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Module V

17	Explain the various Three dimensional transformations.	(6)
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OR

18	Explain about the curves and surfaces that allow local control over the shape of a spline curve or surface.	(6)
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Module VI

19	Explain basic Ray-Tracing algorithm.	(6)
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OR

20	Briefly explain the method that compares surface depth values throughout a scene for each pixel position on the projection plane.	(6)
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