Reg. No.

B.E. / B.TECH. DEGREE EXAMINATIONS, DEC 2019

Fifth Semester

IT16501 – GRAPHICS AND MULTIMEDIA

(Information Technology)

(Regulation 2016)

Time: Three Hours   Maximum : 100 Marks

Answer **ALL** questions

PART A - (10 X 2 = 20 Marks)

		CO	RBT
1.	Define Refresh Buffer. Indicate the refresh rate for standard Computer Monitor.	1	R
2.	Digitize a line from (2, 2) to (4, 4) using DDA algorithm.	1	AP
3.	What are the steps involved in rotating the object from any pivot point?	2	U
4.	Show that two successive scaling are commutative.	2	U
5.	What is blobby object?	3	R
6.	What is meant by polygon table?	3	R
7.	List out the standards for image.	4	R
8.	What is meant by Information Kiosks?	4	R
9.	What is ADDIE model?	5	R
10.	How do you improve the quality of multimedia presentation?	5	U

PART B - (5 X16 = 80 Marks)

			CO	RBT
11. (a)	Derive midpoint circle drawing algorithm. Assume 9 cm as the radius and co-ordinate origin as the centre of the circle.	(16)	1	AP

(OR)

			CO	RBT
(b)	Elaborately discuss the midpoint ellipse drawing procedure. Find the points on the ellipse in the first quadrant with major axis $(r_x) = 6$ units and minor axis $(r_y) = 4$ units.	(16)	1	AP

				CO	RBT
12. (a)	(i)	Explain two dimensional basic transformations with an example.	(12)	2	AP

(ii) What will be the effect of scaling factor Sx=1/4 and Sy=1/4 on a triangle whose coordinates are A=(5,1), B=(6,2) and C=(5,3) **(4)** 2 AP

(OR)

(b) (i) Demonstrate how to clip the lines using Cohen-Sutherland line clipping algorithm. **(8)** 2 AP

(ii) Clip the given line A(2,3) B(5,1) against a window P(2,2) Q(5,2) R(5,4) S(2,4) using Cohen-Sutherland Line Clipping algorithm. **(8)** 2 AP

13. (a) (i) Elaborately discuss about the three dimensional concepts. **(8)** 3 U

(ii) Explain in detail about the quadric surfaces with their parametric equations. **(8)** 3 U

(OR)

(b) (i) Discuss RGB, HSV, YIQ color models with suitable diagrams and equations. **(16)** 3 U

14. (a) (i) Explain the types, compression methods and file formats of text in detail. **(8)** 4 U

(ii) Explain the different file formats of video used in Multimedia. **(8)** 4 U

(OR)

(b) Discuss in detail about the types, representations, standards and file formats of Image with suitable examples. **(16)** 4 U

15. (a) (i) What are the guidelines for multimedia storyboard presentation? Explain in detail. **(8)** 5 U

(ii) Explain the sequence of steps involved in software life cycle model. **(8)** 5 U

(OR)

(b) (i) Write short notes on Testing and Feedback. **(6)** 5 U

(ii) Prepare a report on case study of CBT on sound in multimedia and explain how audio content can be incorporated in a multimedia presentation. **(10)** 5 U