GUJARAT TECHNOLOGICAL UNIVERSITY
Diploma - Semester-VI- Regular Examination May 2011
Subject code: 360705
Subject Name: Computer Graphics & Multimedia

Date:23/05/2011   Time : 02.30 p.m. – 05.00 p.m.
                                    Total Marks: 70

Instructions:
1. **Attempt all questions.**
2. **Make suitable assumptions wherever necessary.**
3. **Figures to the right indicate full marks.**
4. **English version is Authentic**

Q.1	(a)	1. Explain graphics standards	**03**
		2. Explain and write down simple line drawing algorithm.	**04**
	(b)	Explain bresenham's line drawing algorithm.	**07**
Q.2	(a)	Explain parallel line drawing algorithm.	**07**
	(b)	Explain reflection and zooming.	**07**
		OR	
	(b)	What is scaling? Explain general fixed point scaling.	**07**
Q.3	(a)	Explain matrix representations and homogeneous co-ordinates.	**07**
	(b)	Explain and write DDA line drawing algorithm.	**07**
		OR	
Q.3	(a)	Explain 2D vieving transformation pipe line.	**07**
	(b)	Explain Sutherland Hodgeman polygon clipping algorithm.	**07**
Q.4	(a)	What is rotation? Explain X, Y, Z axis rotation.	**07**
	(b)	What is projection? Explain perspective projection.	**07**
		OR	
Q. 4	(a)	Explain data characteristics.	**07**
	(b)	Explain various storage medium.	**07**
Q.5	(a)	Explain .jpeg, .bmp and .gif image formats.	**07**
	(b)	Explain run length and Huffman data compression technique.	**07**
		OR	
Q.5	(a)	Explain image encoding for JPEG standard.	**07**
	(b)	Explain animation languages.	**07**

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પ્રશ્ન–૧	અ	1. Graphics standards નુ વર્ણન કરો.	03
		2. Simple line drawing અલગોરીધમ લખો અને વર્ણવો.	04
	બ	Bresenham's line drawing algorithm નુ વર્ણન કરો.	07
પ્રશ્ન–૨	અ	Parallel line drawing અલગોરીધમ વર્ણવો.	07
	બ	Reflection અને zooming વર્ણવો.	07

અથવા

	બ	Scaling શુ છે? general fixed point scaling વર્ણવો.	07
પ્રશ્ન–૩	અ	Matrix representations અને homogeneous co-ordinates વર્ણવો.	07
	બ	DDA line drawing અલગોરીધમ લખો અને વર્ણવો.	07

અથવા

પ્રશ્ન–૩	અ	2D vieving transformation pipe line વર્ણવો.	07
	બ	Sutherland Hodgeman polygon clipping અલગોરીધમ લખો અને વર્ણવો.	07
પ્રશ્ન–૪	અ	Rotation શુ છે? X, Y, Z અક્ષ rotation વર્ણવો.	07
	બ	Projection શુ છે? perspective projection વર્ણવો.	07

અથવા

પ્રશ્ન–૪	અ	Data characteristics વર્ણવો.	07
	બ	વિવિધ storage medium વર્ણવો.	07
પ્રશ્ન–૫	અ	.jpeg, .bmp અને .gif image formats વર્ણવો.	07
	બ	Run length અને Huffman data compression ટેકનિક વર્ણવો.	07

અથવા

| પ્રશ્ન–૫ | અ | JPEG standard માટે image encoding વર્ણવો. | 07 |
| | બ | Animation ની ભાષાઓ વર્ણવો. | 07 |

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