

GUJARAT TECHNOLOGICAL UNIVERSITY
DIPLOMA ENGINEERING – SEMESTER –VI • EXAMINATION – WINTER 2015

Subject Code: 2360705**Date: 10/12/2015****Subject Name: Computer Graphics & Multimedia****Time: 02:30 PM TO 05:00 PM****Total Marks: 70****Instructions:**

1. Attempt any five questions.
2. Make suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.
4. Each question carry equal marks (14 marks)

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|-------------|--|-----------|
| Q.1 | (a) What is Computer Graphics? Explain applications of Computer Graphics. | 07 |
| | (b) Explain Multimedia, Hypertext and Hypermedia. | 07 |
| Q.2 | (a) Explain DDA line drawing algorithm with advantages and disadvantages. | 07 |
| | (b) Explain Boundary Fill algorithm. | 07 |
| | OR | |
| | (b) Explain parallel line algorithm. | 07 |
| Q.3 | (a) Explain basic 2D transformation in detail. | 07 |
| | (b) 1) Translate the square ABCD whose coordinates are A(0,0), B(3,0), C(3,3) and D(0,3) by 2 units in X-direction and 2 units in Y-direction. | 04 |
| | 2) Prove two successive translations are additive. | 03 |
| | OR | |
| Q.3 | (a) Explain Midpoint circle algorithm. | 07 |
| | (b) Explain Cohen-Sutherland line clipping algorithm. | 07 |
| Q.4 | (a) Define the following terms : | 07 |
| | 1) Composite transformation 2) Clipping 3) Window | |
| | (b) Explain storage, representation and transmission medium. | 07 |
| | OR | |
| Q. 4 | (a) Explain Scanline polygon Fill algorithm. | 07 |
| | (b) Explain sound? Explain MIDI format. | 07 |
| Q.5 | (a) What is animation? Explain computer Based animation. | 07 |
| | (b) Explain MPEG standard. | 07 |
| | OR | |
| Q.5 | (a) What is Data compression? Explain Run length coding method. | 07 |
| | (b) Explain storage requirements for Audio/Video. | 07 |
