

Roll No .....

**IT - 602****B.E. VI Semester**

Examination, June 2016

**Computer Graphics and Multimedia***Time : Three Hours**Maximum Marks : 70*

- Note:** i) Answer five questions. In each question part A, B, C is compulsory and D part has internal choice.  
ii) All parts of each question are to be attempted at one place.  
iii) All questions carry equal marks, out of which part A and B (Max. 50 words) carry 2 marks, part C (Max. 100 words) carry 3 marks, part D (Max. 400 words) carry 7 marks.  
iv) Except numericals, Derivation, Design and Drawing etc.

**Unit - I**

1. a) Which major components (Hardware and Software) are needed for computer graphics?  
b) What are the features of inkjet printer?  
c) Discuss Raster Scan display system.  
d) What are the function of interactive input device? Also give their logical classification.

OR

Differentiate graphical input techniques and positioning techniques.

**Unit - II**

2. a) Discuss about Scan Conversion Techniques.  
b) Explain any one line drawing Algorithm.  
c) Write short note about 3D co-ordinate system.  
d) Write midpoint circle drawing algorithm and explain how it works.

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OR

Discuss in detail about Bezier curves and surface.

**Unit - III**

3. a) Explain 2D Translation, Rotation and Scaling with matrix representation.  
b) What is Clipping? Name the clipping primitive types.  
c) What do you mean by vanishing point in perspective projection? Draw a diagram indicating two vanishing point.  
d) Describe Phong shading model. How is it better than gouraud shading model.

OR

What is color model? Explain any one color model in detail.

**Unit - IV**

4. a) What is multimedia? Write the applications of multimedia.  
b) What are the required objects for multimedia system?  
c) Discuss about multimedia data interface standards.  
d) Describe SCSI and IDE.

OR

Explain Multimedia Authoring tools.

**Unit - V**

5. a) Differentiate compression and De compression.  
b) List multimedia data file format standard with their full form.  
c) Explain working principle of MPEG.  
d) Discuss the Video processing standard used in multimedia system.

OR

Explain about storage and retrieval technologies used in multimedia.

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