

B.Tech IV Year I Semester (R13) Supplementary Examinations June 2017  
**COMPUTER GRAPHICS & MULTIMEDIA**  
(Computer Science and Engineering)

Time: 3 hours

Max. Marks: 70

**PART – A**  
(Compulsory Question)

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- 1 Answer the following: (10 X 02 = 20 Marks)
- (a) Define computer aided design.
  - (b) List the video display devices.
  - (c) Briefly write about scan converting lines.
  - (d) What is 2D transformation?
  - (e) Write the examples of 3D viewing.
  - (f) Define Bezier surfaces.
  - (g) What are the functions of two variables?
  - (h) Write about illumination methods.
  - (i) What are the uses of multimedia?
  - (j) Explain audio file formats.

**PART – B**  
(Answer all five units, 5 X 10 = 50 Marks)

**UNIT – I**

- 2 Explain the role of computer graphics in visualization and image processing.
- OR**
- 3 Describe raster scan systems and random scan systems.

**UNIT – II**

- 4 Write and explain polygon filling algorithm using scan line method.
- OR**
- 5 Summarize matrix representation of 3D transformations.

**UNIT – III**

- 6 Explain about Hermite curves and B-spline surfaces.
- OR**
- 7 Discuss rendering techniques for line drawings.

**UNIT – IV**

- 8 Describe techniques for efficient visible surface algorithms.
- OR**
- 9 Discuss the Z-buffer algorithm in detail.

**UNIT – V**

- 10 Demonstrate MIDI versus digital audio.
- OR**
- 11 Explain about multimedia system sounds.

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