

Computer Science Engineering

CS/IT 14 602—COMPUTER GRAPHICS AND MULTIMEDIA

Time: Three Hours

Part A

Answer any eight questions out of ten.

- 1. Explain different 2D transformations with suitable diagrams.
- 2. Describe the architecture of a Raster Graphics System.
- 3. What are the powerful 3D modeling and animation tools?
- 4. How the input devices are logically classified?
- 5. Explain in detail about authoring in multimedia?
- 6. What is video on demand? Explain.
- 7. State various classification schemes of computer animation.
- 8. Explain the synchronizations issues in multimedia communication systems.
- 9. Why is data compression or file compression highly desirable for multimedia activities?
- 10. What is meant by a group of pictures in H.261 and MPEG video encoding?

 $(8 \times 5 = 40 \text{ marks})$

Maximum: 100 Marks

Part B

1. (a) Explain any popular line clipping procedure using suitable example.

Or

- (b) Derive equations for window-view port transformation.
- 2. (a) Write short notes on three dimensional viewing and functions.

Or

(b) Explain basic transformation methods.

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3. (a) Briefly describe about Multimedia System Architecture.

Or

- (b) Explain about how audio and video used for multimedia.
- 4. (a) Discuss about the classification of coding techniques.

Or

(b) How does MPEG audio compression achieve critical band approximation? List three coding methods in MPEG.

 $(4 \times 15 = 60 \text{ marks})$