

Student Registration Number

B

COURSE CODE: DCAP504  
COURSE TITLE: COMPUTER GRAPHICS

Date: 14-Sep-2013

Time: 09:30-12:30

Time Allowed: 3 hours

Max. Marks: 80

1. This paper contains 10 questions divided in two parts on 1 page.

2. Part A is compulsory.

3. In Part B (Questions 2 to 10), attempt any 6 questions out of 9. Attempt all parts of the selected question.

4. The marks assigned to each question are shown at the end of each question in square brackets.

5. Answer all questions in serial order.

6. The student is required to attempt the question paper in English medium only.

**Part A**

Q1

- a) Define RGB colour model. [2]
- b) Define Persistence. [2]
- c) Define Resolution. [2]
- d) What is a pixel? [2]
- e) What are interactive devices? [2]
- f) Name two clipping algorithms. [2]
- g) Define morphing. [2]
- h) Define ray tracing. [2]
- i) Define computer graphics. [2]
- j) What is the use of shearing transformation? [2]

**Part B**

- Q2. Differentiate between Random scan and Raster Scan display with examples. [10]
- Q3. Explain any four 2-D transformations in computer graphics. [10]
- Q4. Explain various anti-aliasing techniques you have studied. [10]
- Q5. Illustrate the concept of window-to-viewport mapping. [10]
- Q6. Give an algorithm to draw a circle. [10]
- Q7. Discuss the functioning of various Input-Output devices in Computer Graphics. [10]
- Q8. Illustrate the concept of a composite transformation by taking a suitable example. [10]
- Q9. What is line clipping? Explain Cohen-Sutherland clipping algorithm. [10]
- Q10. What is the use of z-buffer method? How is it implemented? [10]