Registration No.:_____

PNR No:: 117181DCA496062

COURSE CODE : DCAP504

COURSE NAME : COMPUTER GRAPHICS

Time Allowed: 03:00 hrs ***Max.Marks: 80***

1. This question paper is divided into two parts A and B.

2. Answer all the questions in serial order.

3. Part A contains 10 questions of 2 marks each. All questions are compulsory.

4. Part B contains 10 questions (Questions 2 to 11) of 10 marks each, attempt any 06 questions out of 10. Attempt all parts of the selected question. Only first 06 attempted questions would be evaluated.

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

6. Simple non programmable calculator is allowed.

PART A

Q1(a) "During the last four to five decades, various techniques have been developed in image processing". Explain.
(b) "The aspect ratio of the image is defined as the ratio of the width of the image to its height". Discuss.
(c) Explain the process of aliasing.
(d) "Scaling is affine transformation." Do you agree? Justify.
(e) "Graphic pipeline is defined as a series of stages which helps a user to create a digital image of a model." Discuss.
(f) In Midpoint Subdivision algorithm, when do you start subdividing a line?
(g) What are perspective anomalies?
(h) Define the term Persistence.
(i) "A color cube can be used to specify the colors". Explain.
(j) Discuss the three scenarios required for additional visual effects.

PART B

Q2 Explain Sutherland Hodgeman algorithm of Polygon Clipping.
Q3 RGB color values can be converted to HIS values. Explain the conversion method with the equations.
Q4 "Two algorithms are defined for filling an object." List and discuss the two algorithms.
Q5 Explain 2D Transformations in detail.
Q6 Explain any five input devices used to pass input to the computer.
Q7 With the help of diagram, Illustrate the working of Midpoint subdivision method.
Q8 With the help of diagram, explain the term Color look up table (CLUT).
Q9 Consider the square A(1,0), B(0,0), C(0,1), D(1,1). Rotate the square ABCD by 45 degree clockwise about A(1,0).
Q10 With the help of example, explain all types of parallel projections.
Q11 With the help of an example, Explain Painter's Algorithm.

-- End of Question Paper --