G.R. No.	

paper code: U228-144 (RE-FF)

MAY 2019/ENDSEM REEXAM

S. Y. B. TECH. (IT) (SEMESTER - II)

COURSE NAME: COMPUTER GRAPHICS

COURSE CODE: ITUA22174

(PATTERN 2017)

Time: [2 Hours]   [Max. Marks: 50]

(*) Instructions to candidates:

1) Answer Q.1, Q.2, Q.3, Q.4, Q.5 OR Q.6, Q.7 OR Q.8
2) Figures to the right indicate full marks.
3) Use of scientific calculator is allowed
4) Use suitable data wherever required

Q.1) a) Rasterize a line from (20,10) to (30,18) using Bresenham's line drawing   [6]
          algorithm.

OR

      b) What is the concept of Pixel, Image resolution and frame buffer.   [6]

Q.2) a) Discuss any two Inside test methods for a pixel.   [6]

OR

      b) Write short note on 2D transformation and its applications.   [6]

Q.3) a) Organize different types of perspective projections into tree structure and give   [6]
          details.

OR

      b) Draw and Clarify the process of rotation about y axis.   [6]

Q.4) a) How to find out coordinates of intersection point of line with window boundary   [4]
          in Cohen-Sutherland line clipping algorithm?

OR

      b) What is segmentation? Explain segment rename operation   [4]

Q.5) a) With the suitable example detail the algorithm for fractal lines for generation of [6] lightning bolt with diagram

b) Describe Animation sequences, functions & Languages [4]

c) What is match band effect. [4]

OR

Q.6) a) Enlist the steps of Phong Shading in detail. [6]

b) Describe the process of Koch curve generation. [4]

c) Differentiate between video and animation? What are different types of [4] animation?

Q.7) a) Explain JPEG encoder and decoder with block diagram. [6]

b) Describe fundamental steps of image processing. [4]

c) What is bit depth? Give example of various bit depths. [4]

OR

Q.8) a) What is quantization? How it is carried out in JPEG? [6]

b) Differentiate between Lossy and Lossless compression? [4]

c) Write short note on TIFF and BMP. [4]