

Total No. of Questions – [08]

Total No. of Printed Pages 02

G.R. No.	
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Paper code - U228-144 (ESE)

MAY 2019/ENDSEM
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 where ever required

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

OR

b) What is the concept of display file and display file interpreter. [6]

Q.2) a) Discuss any two polygon filling methods. [6]

OR

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

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

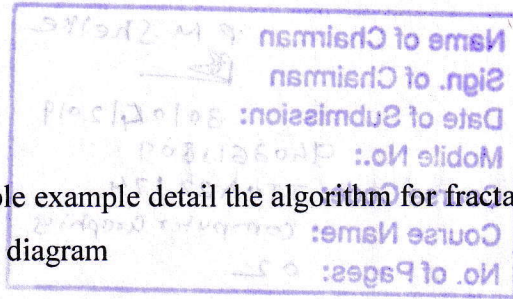
OR

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

Q.4) a) Brief Cohen-Sutherland line clipping algorithm with diagram [4]

OR

b) What is segment? Explain segment creation operation [4]



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

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

c) Provide details of the faceted shading algorithm. What are drawbacks of it. [4]

OR

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

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

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

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 physical and logical compression? [4]

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