

**333615(33)**

**B. E. (Sixth Semester) Examination, 2020**

**(Old Scheme)**

**(IT Engg. Branch)**

**COMPUTER GRAPHICS**

***Time Allowed : Three hours***

***Maximum Marks : 80***

***Minimum Pass Marks : 28***

***Note : Attempt all questions. Part (a) of each question is compulsory and carries 2 marks. Attempt any two parts from (b), (c) and (d) of each question and each carry 7 marks.***

1. (a) What is refresh rate?
- (b) Give difference between Random and Raster Scan?

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- (c) What are the different Area filled primitives.
  - (d) Explain Cohen Sutherland Line clipping algorithm.
2. (a) What is continuity condition of the curve.
- (b) Explain Bezier curve with example and property.
  - (c) Explain B-spline curve with example and property.
  - (d) Explain forward difference method for drawing a curve.
3. (a) What is Perspective point or Line.
- (b) Explain Z-buffer algorithm with their advantage & disadvantage.
  - (c) What is single point, double point and Triple point perspective projection explain with diagram and application.
  - (d) Explain Painter algorithm.
4. (a) What is reflection?

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- (b) Explain Gouraud and phong tracing in brief and also give the difference between them.
  - (c) What is texture. Explain Bump texture mapping with its advantage and disadvantage.
  - (d) Write short notes on : 3½×2
    - (i) Visualization of data set
    - (ii) Volume rendering
5. (a) What is fractal?
- (b) Explain mid point displacement method for fractal generation.
  - (c) Explain self squaring fractal in details.
  - (d) Write short notes on : 3½×2
    - (i) Morphing
    - (ii) Animation