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| Reg. No.: | Thekkil P.O. G | |
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V Semester B.Sc. Degree (CBCSS-Reg./Sup./Imp.) Examination, November- 2019 (2014 Admn. Onwards)

CORE COURSE IN COMPUTER SCIENCE (ELECTIVE)

5B12 CSC-E02: COMPUTER GRAPHICS

Time: 3 Hours Max. Marks: 40

SECTION - A

| One | e Word Answer (8×0.5=4) |
|------|--|
| a) | is a ball that can be rotated with the fingers or palm of hand. |
| b) | A device for drawing, painting, selecting coordinates positions on an object is |
| c) . | is the process of removing lines or portions of lines outside an area of interest. |
| d) | Which method is used to resizing of the digital image. |
| e) | The operation that maps a perspective view of an object in world coordinates into a physical device's display space is |
| f) | method use heat in a dot matrix print head to output patterns on head sensitive paper. |
| g) | is a group of processes common from wireframe display through to near photo-realistic image generation. |
| h) | moves an object to a different position on the screen. |

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(2)



SECTION - B

Write short notes on any SEVEN of the following questions.

 $(7 \times 2 = 14)$

- 2. What are the components of Cathode Ray Tube?
- 3. What is the main function of keyboard?
- 4. Define dot matrix?
- Explain the classification of graphics software.
- 6. Explain in detail line drawing algorithm?
- 7. Explain the properties of circles?
- 8. Write short note on flood fill algorithm?
- 9. What are the basic transformations of two dimensional objects?
- 10. What is point clipping?
- 11. Define polygon mesh?

SECTION - C

Answer any Four of the following questions.

 $(4 \times 3 = 12)$

- 12. How to derive the Midpoint circle Algorithm?
- 13. How to use color look up table for accessing pixel from buffer?
- 14. What are the functions of cohen Sutherland algorithm?
- 15. Explain the various functions for creating and manipulating pictures in graphics?
- 16. Write short note on perspective projection?
- 17. What are the two categories of three dimensional object representations? Explain it?



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SECTION - D

Write an essay on any Two of the following questions.

(2×5=10)

- 18. Explain in detail any four input devices?
- **19.** Explain the terms scaling, rotation, translation, shear in three dimensional transformations.
- 20. Briefly explain
 - a) Text Clipping
 - b) Line Clipping
- 21. Explain in detail three dimensional display methods?