A-0853

BCA-17

Interactive Computer Graphics

Bachelor of Computer Application (BCA)

5th Semester Examination 2024(Dec.)

Time: 2:00 hrs   Max. Marks: 70

Note : This paper is of Seventy (70) marks divided into Two (02) Section A and B. Attempt the questions contained in these sections according to the detailed instructions given therein. Candidates should limit their answers to the questions on the given answer sheet. No additional (B) answer sheet will be issued.

P.T.O.

Section-A (Long-Answer-Type Questions)

Note : Section 'A' contains Five (05) long-answer-type questions of Nineteen (19) marks each. Learners are required to answer any Two (02) questions only.

[2x19=38]

Q.1. Define Computer Graphics. Explain the Random scan displays & Raster scan displays.

Q.2. Explain Scan-converting Polygon filling? Describe Inside outside tests boundary fill and area fill algorithm.

Q.3. Describe 2-D transformations –Rotation, Reflection. Differentiate between Homogeneous Transformations & 3-D transformations.

Q.4. Explain Parallel projections. What are Point Clipping, Line Clipping, and Text Clipping?

Q.5. Explain Projection classification. Describe Perspective projections one point, two points with example.

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Section-B (Short-Answer-Type Questions)

Note : Section 'B' contains Eight (08) short-answer-type questions of Eight (08) marks each. Learners are required to answer any Four (04) questions only.

[4x8=32]

Q.1. Explain Application areas of Computer graphics. Elaborate Graphics software (GKS, PHIGS).

Q.2. Explain Scan converting Polygon Fill Algorithm.

Q.3. What are Circle and Ellipse drawing algorithms?

Q.4. Explain Homogeneous coordinate representation.

Q.5. What do you understand by Morphing? Explain Types of Animation.

Q.6. Describe General Parallel-Projection Transformations.

Q.7. Describe Color Models- RGB, CMYK, HSV & Lookup tables.

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Q.8.   Explain Animation Software and Hardware &

Common Terms in Animation.

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