

**BCA 5th Semester Exam., 2020**

**GRAPHICS AND MULTIMEDIA**

*Time : 3 hours*

*Full Marks : 60*

**Instructions :**

- (i) The marks are indicated in the right-hand margin.
- (ii) There are **SEVEN** questions in this paper.
- (iii) Attempt **FIVE** questions in all.
- (iv) Question Nos. **1** and **2** are compulsory.

**1. Answer the following questions (any six) :**

$$2 \times 6 = 12$$

- (a) What is pixel?
- (b) What is frame buffer?
- (c) Explain the disadvantage of DDA algorithm.
- (d) Which is the basic input device in GUI?
- (e) Distinguish between window port and viewport.

*( Turn Over )*

AK-21/412

- (f) What is rotation?
- (g) What is scan line algorithm?
- (h) What is shearing?
- (i) Name the component of multimedia.

**2. Answer any three of the following questions :**

$$4 \times 3 = 12$$

- (a) Explain refresh cathode-ray tube.
- (b) Express translation, rotation and scaling in homogenous coordinate system. <https://www.akubihar.com>
- (c) Define clipping and types of clipping.
- (d) What is 2-D transformation in computer graphics?
- (e) Explain the storage architecture of multimedia.

**Answer any three of the following :**

- 3. What is computer graphics? What are the different input and output devices used in computer graphics?**
- 4. What is homogenous coordinate? Express 2-D transformation operation in homogenous coordinate.**

AK-21/412

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( 3 )

5. What is clipping? Explain Sutherland Hodgman polygon clipping algorithm. 12
6. Explain the various color models used in computer graphics. 12
7. What is multimedia? What are the input and output devices used in multimedia? Explain briefly. 12

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Code : 303502