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Total No. of Questions : 07

# B.Sc. (Graphics and Web Designing) (Sem.–4) COMPUTER GRAPHICS Subject Code : UGCA-1934 M.Code : 79532 Date of Examination : 17-12-22

Time : 3 Hrs.

Max. Marks : 60

### **INSTRUCTIONS TO CANDIDATES :**

- 1. SECTION-A is COMPULSORY consisting of TEN questions carrying TWO marks each.
- 2. SECTION-B contains SIX questions carrying TEN marks each and students have to attempt any FOUR questions.

### **SECTION-A**

#### 1. Write briefly :

- a. What are graphic tablets?
- b. Define Refresh rate and Fluorescence.
- c. Define random scan display.
- d. What is look-up table and what is its use?
- e. Define character generation.
- f. Write applications of flood fill algorithm.
- g. Define homogeneous coordinate system.
- h. Define shearing and rotation.
- i. What are 3-D graphics?
- j. Define morphing technique.

# **SECTION-B**

- 2. Describe various video display devices. Differentiate between flat display monitors and conventional cathode ray tube monitors.
- 3. Briefly, explain shadow mask and beam penetration method of generating colors in RGB monitors.
- 4. a. Write Bresenham's algorithm for line. Explain it with the help of an example.
  - b. Explain some flood fill techniques. What are its applications?
- 5. Briefly explain Cohen Sutherland clipping algorithm. Explain the significance of Viewport and window in clipping.
- 6. Explain translation and scaling in 3-D geometric transformation with proper example.

# 7. Write a short note on :

- a. Parallel projection
- b. Colour shading.

NOTE : Disclosure of Identity by writing Mobile No. or Marking of passing request on any paper of Answer Sheet will lead to UMC against the Student.