

PG CBCS
M.Sc. Semester-III Examination, 2022
COMPUTER SCIENCE
PAPER: COS 302



Full Marks: 40

Time: 2 Hours

Write the answer for each unit in separate sheet

COS M1: COMPUTER GRAPHICS

F.M.: 20

GROUP-A

- 1. Answer any TWO of the following questions: 2×2=4**
- (a) What do you mean by statement "Resolution of the Screen is (320 × 200)?"
 - (b) Define persistence of phosphor?
 - (c) What is a Bezier curves?
 - (d) What is the picture quality difference between LED and LCD?

GROUP-B

- 2. Answer any TWO of the following questions: 2×4=8**
- (a) Explain the different types of 2D-shear with example.
 - (b) Difference between Raster scan display and Random scan display system.
 - (c) Explain all the types of 3D rotation with example.
 - (d) With the help of the precise narrative description, write the algorithm of Bresnham's line drawing for all types of slopes.

GROUP-C

- 3. Answer any ONE of the following questions: 1×8=8**
- (a) What is projection? Explain the different types of projection available in computer graphics? 1+7
 - (b) Explain the different kinds of 2D reflection.

P.T.O

COS MII: IMAGE PROCESSING

F.M.: 20

GROUP-A

2×2=4

1. Answer any **TWO** of the following questions:

- (a) What is Thresholding?
- (b) What do you understand by fusion of image?
- (c) Define Dilation and Erosion.
- (d) Explain the concept of Sampling and Quantization of an image?

GROUP-B2. Answer any **TWO** of the following questions:

2×4=8

- (a) What do you understand by Opening and Closing? State the relation between them.
- (b) Describe five basic gray level transformations to enhance the image
 - i. Log Transformation
 - ii. Power Law Transformation
- (c) Explain Histogram Equalization with example.
- (d) What do you mean by blurring? How can it be removed?

GROUP-C3. Answer any **ONE** of the following questions:

1×8=8

- (a) Explain different color model used in image processing.
- (b) Explain the following filtering techniques:
 - a. Butterworth high-pass filter.
 - b. Gaussian low-pass filter.
