

S.D.E.

M.C.A. SEM - V : WINTER - 2017

SUBJECT : ELECTIVE – III: COMPUTER GRAPHICS & MULTIMEDIA

Day : **Thursday**
Date : **14/12/2017**

Time : **10.00 A.M. TO 1.00 P.M.**
Max. Marks : 80

W-2017-4440

N.B.:

- 1) Attempt **ANY FIVE** questions from Section – I and **ANY TWO** questions from Section – II.
- 2) Answers to both the sections should be written in **SEPARATE** answer books.
- 3) Figures to the right indicate **FULL** marks.

SECTION – I

- Q.1** Explain any three graphics primitives. [10]
- Q.2** What is polygon mesh? How a polygon mesh is represented in memory? [10]
- Q.3** Discuss inverse transforms and their applications with matrix. [10]
- Q.4** Describe Surface shading methods. [10]
- Q.5** Explain Spline curves with suitable example. [10]
- Q.6** How transparency modeling can be used to form real images? Explain. [10]
- Q.7** Write notes on **ANY TWO** of the following: [10]
- a) 3D viewing parameter
 - b) Applications of Computer Graphics
 - c) Graphics Devices

SECTION – II

- Q.8** a) Describe interior and exterior clipping algorithms with suitable diagram. [08]
- b) Explain real time animation. [07]
- Q.9** Write a program to explain Sutherland Cohen algorithm for line clipping with suitable example. [15]
- Q.10** What is 3D geometry? Explain 3D transformation matrices for : [15]
- a) Translation
 - b) Scaling
 - c) Rotation about X, Y, Z axis

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