S.D.E.

M.C.A. Sem - V : SUMMER - 2019

SUBJECT : I.T. ELECTIVE – III : b) COMPUTER GRAPHICS & MULTIMEDIA

Day : Saturday
Date : 04/05/2019

Time : 10.00 AM TO 1.00 PM
Max. Marks : 80

S-2019-5278

N.B.

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

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 Draw inverse transformation and their applications with matrix. **(10)**

Q.4 Explain Spline curves with suitable example. **(10)**

Q.5 Describe Surface shading methods. **(10)**

Q.6 How transparency modeling can be used to form real images? Explain. **(10)**

Q.7 Write note on any **TWO** of the following: **(10)**

a) 3D viewer parameter
b) Applications of Computer Graphics
c) Graphics Devices

SECTION – II

Q.8 **a)** Describe interior & exterior clipping algorithm with diagram. **(07)**

b) Explain real time animation. **(08)**

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 axes

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