DOON UNIVERSITY, DEHRADUN

Department of Computer Science, School of Physical Sciences

Integrated M.Sc., Sixth Semester

Mid Semester Examination, 2018

CSC-352: Computer Graphics

Time Allowed: 2 Hours   *Maximum Marks: 30*

SECTION: A (Short Answer Type Questions)   (Total Marks: 3X2=6)

Q.1 Attempt any three questions.

a) What are homogeneous coordinates?

b) Differentiate window and viewport.

c) Differentiate random scan and raster scan techniques.

d) Suppose we have a video monitor with a display area that measures 12 inches across and 9.6 inches high. If the resolution is 1280 by 1024 and the aspect ratio is 1. What is the diameter of each screen point?

SECTION: B (Long Answer Type Questions)   (Total Marks: 3X4=12)

Q.2 Attempt all questions.

a) List the different input and output components that are typically used with virtual reality systems.

b) Explain DDA algorithm.

c) Discuss two-dimensional geometric transformation.

SECTION: C (Very Long Answer Type Questions)   (Total Marks: 2X6=12)

Q.3 Attempt all questions.

a) Explain in detail the Cohen-Sutherland line clipping algorithm with an example.

b) Write down and explain the midpoint circle drawing algorithm. Assume 10 cm as the radius and co-ordinate origin as the centre of the circle.