

TEJITIV (REV) 23/5/2012
Computer Graphics & Virtual Reality Systems

PH March Exam (4) 560

Con. 3917-12.

GN-7043

(3 Hours)

[Total Marks : 100

N.B. (1) Question No. 1 is **compulsory**.

(2) Attempt any **four** questions from remaining **six**.

1. (a) What is meant by homogenous matrix representation ? 5
(b) Different applications of computer graphics. 5
(c) Describe in brief physical modelling. 5
(d) List various workstation based Architecture. 5
2. (a) What is meant by virtual reality ? Explain type of virtual reality system. 10
(b) Explain Cohen-Sutherland line clipping Algorithm with example. 10
3. (a) Explain boundary fill and flood fill algorithm using and connect Approach compare them for their performance. 10
(b) Explain graphical rendering pipeline. 10
4. (a) Write DDA line Drawing Algorithm. Calculate the pixel co-ordinate of line AB using DDA Algo where A(0, 0) and B(4, 6). 10
(b) Explain in detail Sun Blade 1000 Architecture. 10
5. (a) Explain scaling, rotation and translation with example. 10
(b) Describe input and output device used for virtual reality. 10
6. (a) Explain virtual programming with reference to Java 3D. Also describe motion control methods. 10
(b) Explain line clipping, text clipping and point clipping. 10
7. Write short notes on :- 20
 - (a) Fractal in computer graphics.
 - (b) Application of virtual reality in military and medicine
 - (c) Computer Animation.
 - (d) RGB and CMY colour model.