Q.25 Explain any two input devices in brief.
Q.26 What is polygon clipping? Explain its four important considerations.
Q.27 Differentiate between Clockwise and anti clockwise rotations.
Q.28 Give matrices for scaling and translation in 2D transformation.
Q.29 What is transformation? Why it is used?
Q.30 Discuss in brief the concept of three dimensional graphics.
Q.31 Write the advantages of depth buffer algorithm.
Q.32 Write short note on:-
a) side effects of scan conversion
b) translation
Q.33 Explain the rotation about a pivot point.
Q.34 Write down the steps for performing translation of object with respect to origin.
Q.35 Write down steps required to generate a circle.

## SECTION-D

**Note:** Long answer type questions. Attempt any two questions out of three questions. (2x10=20)

Q.36 Differentiate between the following:-
a) Trackball and Spaceball
b) Beam penetration method and shadow mask method.
c) Impact and non impact printer.
Q.37 Explain CRT in detail with a neat diagram.
Q.38 Explain the Cohen Sutherland clipping algorithm.



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**6th Sem / Branch : Comp., IT**
**Subject:- Computer Graphics**

Time : 3Hrs. M.M. : 100

## SECTION-A

**Note:** Multiple choice questions. All questions are compulsory (10x1=10)

Q.1 User communicates with a computer with the help of which devices?
a) Input device b) Output device
c) Software device d) Both a and b

Q.2 Which of the following groups are only input devices?
a) Mouse, keyboard, monitor, joystick
b) Mouse, keyboard, printer, light pen
c) Mouse, keyboard, Scanner, joystick, Light pen
d) Mouse, keyboard, Trackball, Touch Screen, Microphone
e) Both a and d

Q.3 Which of the following are the features of Computer Graphics?
a) Creation and deletion of images by computer only
b) Deletion and manipulation of graphical images by computer

c) Creation and manipulation of graphics by computer
d) Creation of artificial images by computer only

Q.4 Which of the following is a Computer Graphics type?
a) Raster and Vector b) Raster and Scalar
c) Scalar only d) All of the above

Q.5 Which of the following is not a pointing device?
a) Mouse b) Joystick
c) Light pen d) Digitizer

Q.6 Random scan systems are used for
a) Color drawing application
b) Pixel drawing application
c) Line drawing application
d) None of the above

Q.7 Which of the following is must be specified to generate a rotation?
a) Rotational distance b) Rotation angle
c) Co-ordinates d) None of the above

Q.8 Which of the following plane is used for 2D transformations?
a) Three-dimensional plane
b) Two-dimensional plane
c) One-dimensional plane
d) Four-dimensional plane

Q.9 Bitmap is a collection of _____ that describes an image.
a) pixels b) algorithms
c) bits d) colors



Q.10 Which of the following is defined as the number of pixels stored in the frame buffer of a graphics system?
a) Resalution
b) Resolution
c) Depth
d) None of the mentioned

## SECTION-B

**Note:** Objective type questions. All questions are compulsory. (10x1=10)

Q.11 GUI stands for _____
Q.12 Name any one pointing device.
Q.13 Define the term distortion.
Q.14 Mention the use of reflection.
Q.15 What is meant by aspect ratio?
Q.16 CAE stands for _____
Q.17 Web camera is input device or output device?
Q.18 What are vanishing points?
Q.19 Name any one display device.
Q.20 CAM stands for what?

## SECTION-C

**Note:** Short answer type questions. Attempt any twelve questions out of fifteen questions. (12x5=60)

Q.21 Explain various applications of computer graphics.
Q.22 Define the term back face removal algorithm.
Q.23 Explain viewing transformation.
Q.24 Explain Z-buffer algorithm.