Day: **Friday**		Time: **02.30 PM** TO **05.30 PM**
Date: **24/11/2017**	**W-2017-2092**	Max. Marks: 60

N.B.:
1) All questions are **COMPULSORY**.
2) Figures to the right indicate **FULL** marks.
3) Draw neat diagrams **WHEREVER** necessary.

Q.1 What are the different input devices of graphics system? Explain working **(10)** principal of each of them.

OR

Q.1 Compare the function performed by display processor in Random Scan and in **(10)** Vector Scan systems.

Q.2 With suitable examples, explain the following: **(10)**
  i) Line drawing algorithm
  ii) Line clipping algorithm

OR

Q.2 Describe about most commonly used Color models in Computer Graphics. **(10)**

Q.3 Translate the Square ABCD whose co-ordinates are A(0,0), B(3, 0), C(3, 3) **(10)** and D(0, 3) by 2 units in both directions and then scale it by 1.5 units in X-direction and 0.5 in Y- direction.

OR

Q.3 Derive transformation matrix for 3D Scaling followed by Rotation about fixed **(10)** point.

Q.4 Give the classification of Planar geometric projection. With neat sketches, **(10)** explain the Orthographic and Oblique Parallel projections.

OR

Q.4 Explain 3D Viewing in detail. **(10)**

Q.5 State and explain Painter's Algorithm. **(10)**

OR

Q.5 Describe different parameters which influence the surface Illumination. **(10)**

Q.6 Explain in detail Bezier curve generation techniques and also specify the **(10)** properties of Bezier's curve.

OR

Q.6 Write about random fractals in detail. **(10)**