

**SARDAR PATEL UNIVERSITY**  
**Programme: MSC (Information Technology)**  
**Semester: III**  
**Syllabus with effect from: June 2010**

<b>Paper Code:</b> PS03EINT03	<b>Total Credits: 4</b>
<b>Title Of Paper:</b> Multimedia and Computer Graphics	

Unit	Description in detail	Weightage (%)
<b>1</b>	<b>MULTIMEDIA:</b> Introduction, Definition, Multimedia Hardware, Multimedia Software, Multimedia Networking, Multimedia Application, Multimedia Environments, Multimedia Computer Components, Multimedia Standards, Multimedia PC.	<b>18 %</b>
<b>2</b>	<b>OVERVIEW OF COMPUTER GRAPHICS SYSTEM:</b> A survey of Computer Graphics Over View of Computer Graphics System Video display devices Raster Scan and random scan system Input devices Hard copy devices.	<b>16 %</b>
<b>3</b>	<b>OUTPUT PRIMITIVES AND ATTRIBUTES:</b> Drawing line, circle and ellipse generating algorithms Scan line algorithm Character generation – attributes of lines, curves and characters	<b>16 %</b>
<b>4</b>	<b>TWO DIMENSIONAL GRAPHICS TRANSFORMATION:</b> Two dimensional geometric transformations Windowing and Clipping Clipping of lines	<b>18 %</b>
<b>5</b>	<b>THREE DIMENSIONAL GRAPHICS TRANSFORMATION:</b> Three dimensional concepts – representations Polygon table, Quadric surfaces, Splines, Besier curves and surfaces Geometric and Modeling transformations Viewing Parallel and perspective projections.	<b>16 %</b>
<b>6</b>	<b>REMOVAL OF HIDDEN SURFACES:</b> Visible surface detection methods Computer animation	<b>16 %</b>

**Basic Text & Reference Books:**

- Tay Vaughan, "Multimedia making it works", 4<sup>th</sup> Edition Tata McGraw Hill Edition, 2000. (**For Unit – 1**)
- Hearn, D. and Pauline Baker, M., "Computer Graphics", 2nd Edition, Prentice Hall of India, 1995. Sections: 1.1-1.8, 2.1-2.3, 2.5, 2.6, 3.1-3.7, 3.11, 3.14, 4.1, 4.2, 4.5, 5.1-5.5, 6.1-6.7, 9.1, 9.2, 10.1-10.4, 10.6-10.8, 11.1-11.7, 12.1, 12.3, 13.1-13.9, 13.12, 16.1-16.6)
- Neuman, W.M., and Sproull, R.F., "Principle of Interactive Computer Graphics", McGraw Hill Book Co., 1979.
- Rogus, D.F., "Procedure elements for Computer Graphics", Mc - Graw Hill Book Co., 1985.
- Asthana, R.G.S and Sinha, N.K. "Computer Graphics", New Age Int. Pub. (P) Ltd., 1996.

