

**PAPER XVIII - GRAPHICS AND MULTIMEDIA**

**UNIT - I**

**GRAPHICS DEVICES – LINE AND CIRCLE DRAWING ALGORITHMS**

Overview of Graphics Systems- Display Devices – Hard copy Devices- Interactive Input devices – Display processors, graphics Software – Line drawing – various algorithms and comparisons – Circle drawing algorithms.

**UNIT - II**

**FILLING TRANSFORMATIONS AND SEGMENTS**

Attributes – area filling algorithms – Scan conversion algorithms – Transformations – Two dimensional – Basic Composite and Other transformations – Matrix representations-Windowing and Clipping – View port Transformation – Segments – Introduction to 3D Graphics.

**UNIT - III**

**USES OF MULTIMEDIA INTRODUCTION**

Introduction – What is Multimedia - Multimedia and Personalized computing – Multimedia on the Map – A tour of emerging applications – Multimedia systems – The challenges

**The Convergence of Computers, Communications and Entertainment products:**

Technology trends – Multimedia applications: hybrid devices – A designers view of Multimedia appliances – Industry perspectives for the next decade – A forward view – Key challenges Ahead: Technical, Regulatory and Social

**UNIT - IV**

**Architectures and Issues for Distributed Multimedia Systems:**

Distributed Multimedia systems – synchronization, orchestration and QOS Architecture – The role of standards – A framework for multimedia systems

**Digital Video and Image Compression:**

Evaluating a compression system – redundancy and visibility – video compression techniques - standardization of algorithms – The JPEG image compression standard – ITU –T recommendation H.261 – The Mpeg Motion video compression standard – DVI technology

**UNIT - V**

Photoshop – Using the Toolbox – Palettes – Creating a simple image – creating Banners- Creating buttons – Creating Shapes & Logos – Creating Patterns and Creating brush. Flash – How Flash works – Uses of flash – what can flash do- The Timeline – The stage Tools and toolbars – The menu bar – Properties Inspector – Using Bitmaps – importing bitmaps – bitmaps as fills., using sound – importing & editing sound – adding video – manipulating video – Animation : Frame-by-frame animation – Motion tweening – Motion guides – animating text – movie clips.

**TEXT BOOKS**

1. Donald Hearn M. Paulin Baker “Computer Graphics” 1992, PHI
2. Willam M. Newman, Robert F. Sproull “Principles of Interactive Graphics” 1979 McGraw Hill,
3. John.F. Koegel Buford, “Multimedia Systems”, Pearson Education 2005

**REFERENCE BOOKS**

1. Jen Dehaan “Macromedia FLASH MX 2004”, Macromedia Press, Techmedia.
2. Adobe Press “Adobe Photoshop CS”, Techmedia.