PART - B

Computer Graphics - End Semester.

UNIT - 1 2marks :

1. Computer Graphic app.
2. Diff b/w raster scan & random scan.
3. Diff b/w image processing & computer graphics
4. Define resolution.
5. Define persistance.
6. Write short notes on refresh CRT?
7. Define aspect ratio.
8. Write short notes on modelling coordinates & local coordinates
9. Write the use of datagloves & touch panel.
10. Write short notes on modelling coordinates & local coordinate
10. Write the types of hardcopy devices.
11. Write the methods used in color CRT
12. Write short notes on DVST & Panel display.
13. Write the purpose of focusing system.
14. Write short notes on bit map & pix map.
15. Why we need fractal geometry method (Pg 362)
16. Write the use of fractal method in CG.
17. What are the basic characteristics for fractal object.
18. Define fractal dimensions.
19. Write the applications of fractal methods for modelling.

20. Write the classification of fractal.
21. Define animation
22. Define morphing.
23. List the motion specifications used in animation system.

13 - marks :

1. Draw and explain working of CRT (8m).
2. Raster scan & Random scan (5m). display.
3. Input devices.
4. Hardcopy devices.
5. Fractal geometry methods. (Pg 363 - 376).

Ans: Fractal Generation Procedure.
Classification of fractal.
Fractal dimension
Geometric construction of deterministic...
Geometric construction of self similar...
Affine.
Fractal construction method.
Random midpt displacement method.

6. Design of animation sequence (8m) Pg 584.
7. What are the ways in which motions of object can be specified in an animation system. Pg 594 (5m).

UNIT - II (2 marks)

1. Write other transformation
2. Define coherence.
3. Define output Primitive.
4. Inside. Outside test? or Odd even rule, Non-zero winding number rule.
6. Boundary fill algorithm.
7. Four connected & 8 connected explain? Pg 127.
8. Flood Fill algorithm.
9. Approaches used to fill area in raster system.
10. Define window and viewport.
11. 2D viewing transformation pipeline (with diagram).
12. Define clipping and write types of clipping.

13 marks

13. What are the approaches available to fill an area on the raster system (Pg 117).
14. Define Coherence.
15. Diff b/w isometric & acrometric

13 marks:

1. Scanline polygon fill algorithm.
2. Circle generating algorithm.
3. CohenSutherland Line Clipping Algorithm.
4. 2D transformation (8m).

5. DDA Line algorithm (5m).
6. Bresenham Line Algorithm (8m)
7. Line Barky Algorithm (5m).

Sums - Line, circle (8m).

UNIT - 3.

2 marks :

1. 3D object representation & concepts.
2. Define & plaine and types of splaines
3. Surface rendering.
4. 3D transformation types.
5. Define polygon.
6. Curve Line surface and cordratic surfaces.
7. Bezeir curve uses.
8. Bezeir curve properties.
9. Difference between parallel projection and perspective projection
10. Define other transformations
11. Difference object base methods image base methods.
12. Write the use of pointers algorithm (or) Depth sorting method?
13. Infinite loop : paragraph (last) Depth sorting method.
14. Diff b/w axometric & isometric.

13 marks:

1. 3D Transformation
2. Splaine & its Types
3. Cubic polynomial splaine
4. How can we project the 3D objects onto the 2D view plane? Elaborate your answer with suitable diagrams.
5. polygon surface (8m).
6. Parallel projection Depth ~~Curve~~ Cueing, Visible surface Perspective projection (~~any~~ any 2) 5 marks.
7. Scan line algorithm (8m).
8. Depth sorting method (8m)
9. Backface detection method (8m).
10. Visible surface detection (8m).
11. To produce a display of 3D object, what are procedures (plaine equation). (8m).
12. Bezeir curve & surface (13m)
    Bezeir curve - 8m
    Surface - 8m.

UNIT - IV

2marks Book - 2. chap - 5.

ze - Mandi - Chap 2, 15, 16, 17.3

1. Define multimedia.
2. Components of multimedia.

3. Define hypermedia.
4. Goals of WWW
5. Categorize software tools of multimedia.
6. Write the short notes "SMIL" (p
7. Diff b/w URI & URL.
8. Uses of get & post method.
9. Multimedia authoring tool types only.?
10. Action script & VRML?
11. Define tweening & types of tweening
12. Diff b/w TCP & UDP
13. List the basic multiplexing technologies.
14. Write the types of switching technologies used in WAN's
15. Access networks (last mile).
16. Challenges in multimedia N/w communications Pg 442
17. Characteristics of multimedia N/w communication
18. List the parameters used for multimedia data transmission.
19. List the types of packets used in RTCP.
20. Abbreviations RTCP, RTSP.
21. List the components of STB Set Top Box.
22. Write the types of broadcasting used in video on demand.
23. Define fading in Wireless communication

Define multipath freeding.

Write the 3GPP QoS requirements for multimedia transmission.

CSMA/CD , GIF. MIME

13 marks:

1. Overview of multimedia elements.
   (i) text
   (ii) Image
   (iii) animation.
2. Video file formats (8m)
3. Multimedia authoring tool. (or) features of authoring tool.
4. What are the technique parameters that affect the design and delivery of multimedia applications - Book (15.2.1 - 15.2.4).
5. Multiplexing technologies (8m).
6. Access N/W) (5m). (HFC, FTTC, FTTH, Terrestial distribution, satellite distribution).
7. Quality Of Multimedia Data transmission (8m).

   Ans: QoS
   QoS for IP Protocol.
   Prioritized delivery.

8. IGMP / RTP / RTCP / RSDP / RTSP (5m).
9. Media On Demand (13 marks) (MOD).

   Ans: ITV, STB, Broadcast scheme for video on demand, Buffer management.

10. Multimedia Wireless Networks (10 m)

Ans: Synchronization loss.

Error resilent.

Entropy Coding

Error Concelement.

FEC

Book-2. Trends in wireless interactive multimedia.

4. TCP / IP reference model. (Pg 243 · chap-5).

UNIT - V [Book-2 chap 2, 3, 4, 5]

2 marks.

1. Define analog signal.
2. Define signal encoder, decoder.
3. NV Quist sampling theorem.
4. Formatted Text.
5. Write the use of compression.
6. What is loss less & lossy compression.
7. Define codeword.
8. Write the diff b/w static & dynamic Huffman coding
9. Write the diff b/w LZ & LZW coding algorithm.
10. Define vectoring.

13 marks :

1. Digitizing principles. 8m
2. NV Quist Sampling theorem. 8m
3. Formatted text. 8m
4. PCM. 8m
5. PC VIDEO. (Table) 8m
6. Digitize documents. (scanner related) 8m
7. Digitized pictures 8m
8. Synthesist audio. 8m.
9. Compression principles (13 m)

   Ans Source encoders Pg 117

   Designation decoders

   Lossless & Lossy Compression

   Entropy encoding
10. Text Compression (13m)

    Ans : Static Huffman Coding

    Dynamic Huffman coding

    Arthmetic coding

    LZW coding
11. Image compression (13 m).

    Ans : GIF

    TIFF

    Digitize document.
12. Digitize pictures (13 m)

(9).

(13) JPEG (13 m).

14. Audio Compression (13 m) (diagrams)

Ans : DPCM

ADPCM

APC

LPC.

CELP

Preceptual Coding

MPEG Audio Coders

Dolby Audio Coders.

15. Video Compression (13 m).

Ans: Video compression principles.

H- point 261

H. point 263

MPEG

MPEG 1

MPEG-2.

MPEG 4

(10).

UNIT- III (2m).

16. Cavelier projection

17. Vanishing point.

18. What are the approaches used in visible surface detection method.