Repeated Questions for Multimedia System Design [M.S.D.]

[Those Mark with (*) are repeated once]

UNIT 1. FUNDAMENTALS OF MULTIMEDIA SYSTEM DESIGN

- WHAT IS MULTIMEDIA? EXPLAIN VARIOUS ELEMENTS OF MULTIMEDIA?
- **WHAT IS MULTIMEDIA? EXPLAIN VARIOUS APPLICATION OF MULTIMEDIA WITH AN EXAMPLE.**
- **EXPLAIN TYPES OF GRAPHICS. DIFFERENTIATE BETWEEN VECTOR IMAGE AND BITMAP IMAGE**
- Explain bitmaps and vector drawing in details.
- **DISCUSS DIFFERENT TYPES OF MULTIMEDIA STRUCTURES AND HOW THEY MIGHT BE ORGANIZED**
- DISCUSS DIFFERENT TYPES OF MULTIMEDIA STRUCTURES? EXPLAIN IN DETAIL WITH THE HELP OF SUITABLE EXAMPLES.
- EXPLAIN THE ROLES AND RESPONSIBILITIES OF ALL THE MULTIMEDIA TEAM MEMBERS
- SHORT NOTE ON- COMPUTER BASED MULTIMEDIA
- EXPLAIN WITH EXAMPLE ABOUT THE IMPORTANCE OF MULTIMEDIA ON WEB.

UNIT 2. MULTIMEDIA INPUT AND OUTPUT TECHNOLOGIES

- ***EXPLAIN IN DETAIL VARIOUS PRINCIPLES OF ANIMATION?*** and its various techniques in detail
- *** SHORT NOTE ON - ANIMATION TECHNIQUES***
- DISCUSS BRIEFLY BROADCAST VIDEO STANDARDS NTSC, PAL, SECAM, AND HDTV
- **WHAT IS ANIMATION**
- DEFINE ANIMATION. BRIEFLY OUTLINE VARIOUS TYPES OF ANIMATION FILE FORMATS.
- DIFFERENTIATE BETWEEN – CELL ANIMATION AND PATH ANIMATION

UNIT 3. MULTIMEDIA FILE FORMAT AND STANDARDS

- EXPLAIN ANALOG DISPLAY STANDARDS AND DIGITAL DISPLAY STANDARDS IN DETAIL.
- ***WHAT IS MIDI AND DIGITAL AUDIO? COMPARE AND CONTRAST THE USE OF MIDI AND DIGITIZED AUDIO IN MULTIMEDIA APPLICATIONS.***
- **Difference between midi and digital audio.**
- SHORT NOTE ON MIDI
- WHAT IS MIDI AUDIO? COMPARE AND CONTRAST THE USE OF MIDI AND DIGITIZED SOUND IN MULTIMEDIA PRODUCTION
- EXPLAIN VARIOUS CONSIDERATIONS INVOLVED IN RECORDING AND EDITING A DIGITAL AUDIO.
- SHORT NOTE ON – IMAGE FILE FORMATS
- SHORT NOTE ON – MPEG STANDARDS
- DESCRIBE IN SHORT THE VIDEO OBJECT REPRESENTATION AND ENCODING LAYER OF MPEG.
- EXPLAIN IN DETAIL ANALOG DISPLAY STANDARD AND DIGITAL DISPLAY STANDARDS
- **DISCUSS VIDEO RECORDING AND TAPE FORMATS IN DETAIL**
- SHORT NOTES – JPEG AND GIF
- Compare and contrast jpeg and mpeg, how would motion jpeg differ from mpeg.

UNIT 4. COMPRESSION AND DECOMPRESSION TECHNIQUES

- GIVEN A STRING, ABRACADABRA. GENERATE HUFFMAN CODE TREE? SHOW WEIGHT ORDER AND HOW MANY BITS ARE REQUIRED TO TRANSMIT THE COMPLETE STRING ABRACADABRA.
- GENERATE HUFFMAN TREE FOR THE FOLLOWING ALPHABETS:

M	N	O	P	Q	R	S	T
0.22	0.28	0.23	0.26	0.24	0.27	0.25	0.57

CALCULATE THE TOTAL NUMBER OF BITS REQUIRED TO TRANSFER THESE APLHABETS.

- CONSTRUCT HUFFMAN TREE FOR THE FOLLOWING FIVE LETTERS:- ABCDE WHICH ARE LISTED IN DECREASING ORDER OF FREQUENCY OF USE

SYMBOL	FREQUENCY
A	24
B	12
C	10
D	8
E	8

  CALCULATE THE TOTAL NUMBER OF BITS REQUIRED TO TRANSFER THESE ALPHABETS.

- GIVEN A STRING XXXXYYZW. GENERATE HUFFMAN CODE TREE. SHOW WEIGHT ORDER AND HOW MANY BITS ARE REQUIRED TO TRANSMIT THE COMPLETE STRING XXXXYYZW.
- **WHAT IS COMPRESSION? EXPLAIN JPEG COMPRESSION PROCESS IN DETAIL.**
- ** WHAT IS COMPRESSION? DISTINGUISH BETWEEN LOSSY AND LOSSLESS COMPRESSION TECHNIQUES.**
- **What is compression? Explain various steps involved in mpeg audio and video compression process.**
- SHORT NOTE ON – JPEG
- **SHORT NOTE ON – ENTROPY ENCODING** run length
- Explain briefly the video file formats.

UNIT 5. STORAGE AND RETRIVAL TECHNOLOGIES

UNIT 6. PLANNING AND COSTING

- WHAT DO YOU UNDERSTAND BY IDEA ANALYSIS? EXPLAIN THE PROCESS OF MAKING MULTIMEDIA
- ***DIFFERENCIATE BETWEEN – ALPHA DEVELOPMENT AND BETA DEVELOPMENT***
- WHAT IS PRETESTING? OUTLINE THE ESSENTIAL CHARACTERISTICS OF ALPHA DEVELOPMENT.

- Discuss the important role of planning and costing in multimedia.

EXTRA QUESTIONS

- A VIDEO CAN HAVE DURATION (T) OF 1 HOUR, A FRAME SIZE OF 640 X 480 AT A COLOR DEPT OF 24 BITS AND A FRAME RATE OF 25 FPS. CALCULATE THE VIDEO SIZE?
- EXPLAIN IN DETAIL BITMAP IMAGES AND VETOR DRAWING IMAGES? DIFFERENTIATE BETWEEN BITMAPS AND VECTOR DRAWN OBJECTS.
- DIFFERENTIATE BETWEEN- BIT MAPPED GRAPHIS AND VECCTOR GRAPHICS.
- ****EXPLAIN MULTIMEDIA AUTHORING TOOLS AND ITS DIFFERENT TYPES IN DETAILS?****
- WHAT ARE THE DIFFERENT TYPES OF MULTIMEDIA AUTHORING TOOLS? DISCUSS THE DIFFERENCE BETWEEN CARD BASED AND TIME BASE AUTHORING TOOL WITH THE HELP OF SUITABLE EXAMPLE.
- DESCRIBE ANY TWO METHODS FOR DELIVERING A MULTIMEDIA PROJECT? DISCUSS THE BENEFITS AND DRAWBACKS OF EACH METHOD.
- ** LIST AND DISCUSS VARIOUS STAGES OF MAKING MULTIMEDIA PROJECT WITH DIAGRAM.**
- **EXPLAIN THE PROCESS AND ELEMENTS OF A MULTIMEDIA PROJECT PROPOSAL **
- LIST ALL THE PRIMARY TASK THAT GO INTO PRODUCING A MULTIMEDIA PROJECT. PLACE THESE STEPS IN LOGICAL ORDER. COMMENT ON THESE STEPS WHETHER THEY ARE CRITICAL TO THE TIME LINE
- SHORT NOTE ON – MULTIMEDIA CONFERENCING
- ***SHORT NOTE ON – HOT SPOTS, HYPERLINKS AND BUTTONS***

- WHAT ARE HOT SPOTS? EXPLAIN HOW HOT SPOTS WEB PAGES IMPROVES THE PRESENTATION AND ACCESS TO MULTIMEDIA CONTENTS.
- LIST AND DESCRIBE THE THREE DIFFERENT TYPES OF AUTHORING SYSTEM AND DISCUSS THE ADVANTAGES OF EACH ONE.
- **SHORT NOTE ON – STORYBOARD **
- **SHORT NOTE ON – CBT **
- What is CBT? Explain the uses of multimedia in CBT.
- **SHORT NOTES ON – HYPERMEDIA**
- DIFFERENTIATE BETWEEN – HYPERTEXT AND HYPERMEDIA
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- SHORT NOTE ON – OPTIMIZING VIDEO FILES FOR CD-ROM
- WHAT IS THE IMPORTANCE OF GUP IN MULTIMEDIA PROJECT? EXPLAIN THE GOLDEN RULES OF GUP IN DETAIL
- SHORT NOTES- INTERACTIVE MULTIMEDIA
- SHORT NOTE ON- COMPACT DISK TECHNOLOGY
- SHORT NOTE ON – AUDIO INTERFACE
- SHORT NOTE ON - VIDEO CONFERENCING
- SHORT NOTE ON – digital sound sampling
- SHORT NOTE ON – interlacing scanning