

QUESTION 1:

(1. A) Complete the following sentences **10 points**

1. Multimedia is application that.....
2. Multimedia attributes are,,.....
3. Color model is.....
4. Examples for multimedia authoring software is.....
5. Factors that affect multimedia presentations are,,.....
6. The idea used in 8-bit LUT store only the for each pixel

(1. B) Compare in brief between the following **12 points**

1. interlacing and progressive image scanning techniques
2. multimedia and hypermedia
3. sampling and quantizing.

QUESTION 2 :

(2. A) Put true or false **14 points**

1. there is less crosstalk between the color information and the crucial gray-scale information in composite video than components video ()
2. Symbols that occur more frequently will have shorter Huffman codes ()
3. The basic strategy of sampling process is used to provide ability to print multi-level images on 2-level ()
4. The "4:2:0" chroma subsampling scheme indicates that no chroma subsampling is used
5. human visual system is more sensitive to luminance than chrominance ()
6. GIF standard supports interlacing ()
7. If the compressed data is reconstructed and the original data is obtain without any loss of information then this technique is called lossy compression()

(2.B) write short notes about the following **12 points**

1. different color models used in video
2. Nyquist theorem
3. types Video signal

QUESTION 3:

(3. A) Choose the Correct Answer **8 points**

1. interference between the luminance and chrominance signals is inevitable in
(a) S-Video (b) Component Video (c) Composite Video
- 2- used in color TV broadcasting
(a) YIQ (b) RGB (c) CMYB

3-is one of the most important image format because of its historical connection to the WWW and HTML

(a) PNG

(b) GIF

(c) JPEG

4. If a signal is band-limited with a lower limit “5 K HZ” and an upper limit “12 K HZ” of frequency components in the signal, the sampling rate should be at least

(a) 24

(b) 14

(c) 10

QUESTION 4:

4 points

Find bit rate used in SECAM video for **640 X 480** frame resolution and **4:4:4** chroma sub-sampling.