2021

ELEMENTS OF MULTIMEDIA

Full Marks: 60

Time: Two hours

The figures in the margin indicate full marks for the questions.

PART-A

1. A) Choose the correct answer from the following: (5x1 = 5)

i) Software is a multimedia:

    a. System
    b. Element
    c. Component
    d. Object

ii) 'Trade Show Productions' is an example of multimedia application in the field of:

    a. Education
    b. Entertainment
    c. Business
    d. Creative Industries.

iii) Which among the following is not a signal?

    a. Hand gestures
    b. Audible speech
    c. Light
    d. Text

iv) Which among the following is a dictionary based compression technique?

    a. LZW
    b. JPEG
    c. Huffman Encoding
    d. MPEG

v) Which among the following file type does not support alpha channel?

    a. TGA

    b. GIF

    c. JPEG

    d. PNG

B) Identify which among the following is an icon or a symbol: (5x1 = 5)

    (i)   **(ii)**   **(iii)**   **(iv)**   **(v)**

C) Fill up the blanks: (5x1 = 5)

i) Digital signals are denoted by _____ waves.

ii) Portrait and Landscape are two page _____ found while printing text.

iii) Images reflect the _____ of lights.

iv) Sound which are unpleasant to hear is called _____.

v) The aspect ratio of high definition television is _____.

D) State True or False: (5x1 = 5)

i) While creating a binary tree in Huffman encoding, the right branches are assigned '0' and left branches are assigned '1'.

ii) A single script can sometimes work for a single language.

iii) When a colour is made lighter by adding white, the colour variations are called tones.

iv) The Television broadcast standard SECAM is used in Western European countries.

v) The range of a Personal Area Network is approximately 33 feet.

PART-B

2. What are the different types of media? Give examples. (2)

3. What is an emoticon? (2)

4. What are the benefits of using the alpha channel? (2)

5. Define acoustics and psychoacoustics. (2)

6. State Nyquist's theorem. (2)

7. What is a web browser? (2)

PART-C

8. What are the steps required to create a binary tree using Huffman's algorithm? (4)

9. Draw four emoticons using only text characters, numbers and symbols and denote their meaning. (4)

10. State four differences between vector graphics and raster graphics. (4)

11. Explain dithering and anti-aliasing in digital images. (4)

12. Describe the composition of a MIDI file with a diagram. (4)

13. How is a component video different from a composite video? (4)

14. What are the different types of Virtual Reality systems? Explain them briefly. (4)

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