



## BRAINWARE UNIVERSITY

Term End Examination 2022  
 Programme – BCA-2019/BCA-2020  
 Course Name – Introduction to Multimedia  
 Course Code - BCAC502  
 ( Semester V )

Full Marks : 60

Time : 2:30 Hours

[The figure in the margin indicates full marks. Candidates are required to give their answers in their own words as far as practicable.]

### Group-A

(Multiple Choice Type Question)

1 x 15=15

1. Choose the correct alternative from the following :

- (i) JPEG may be explain as
- |                                     |                                     |
|-------------------------------------|-------------------------------------|
| a) Joint photographic Exports Group | b) Joint Physical Experts Group     |
| c) Joint Physical Exports Group     | d) Joint Photographic Experts Group |
- (ii) Identify the minimum refresh rate to avoid flicker for all motion devices-
- |         |         |
|---------|---------|
| a) 30Hz | b) 40Hz |
| c) 50Hz | d) 70Hz |
- (iii) Two parts of Morphing algorithms are describe as-
- |                    |                        |
|--------------------|------------------------|
| a) Warp & Tweening | b) Tweening & Wrap     |
| c) Wrap & Dissolve | d) Tweening & Dissolve |
- (iv) Define which image files are a lossy format?
- |         |          |
|---------|----------|
| a) GIFB | b) MPEGC |
| c) JPEG | d) PNG   |
- (v) Tell a good example of hypermedia -
- |                 |                      |
|-----------------|----------------------|
| a) The internet | b) Level1 video disc |
| c) Audiotape    | d) Videotape         |
- (vi) State which compressions provide some loss of quality?
- |               |                 |
|---------------|-----------------|
| a) Lossy      | b) Loss less    |
| c) Cell based | d) Object based |
- (vii) Define, JPEG is a file format for \_\_\_\_\_
- |               |                   |
|---------------|-------------------|
| a) Video file | b) Graphics image |
| c) Audio File | d) Text File      |
- (viii) Explain MP3 is an extension of a \_\_\_\_\_ file.
- |               |                   |
|---------------|-------------------|
| a) Video file | b) Graphics image |
| c) Audio File | d) Text File      |
- (ix) The MIDI standard establishes how many channels?
- |       |       |
|-------|-------|
| a) 16 | b) 24 |
| c) 32 | d) 40 |
- (x) Explain that a compressed audio/video file can be downloaded as a

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- a) Image  
c) Frame
- b) Video  
d) Text file
- (xi) Number of frames displayed by a monitor in one second can be measured as-
- a) Dot pitch  
c) Resolution
- b) Aspect ratio  
d) Color depth
- (xii) Hz can be illustrate as
- a) Number of recording console  
c) short form of hertz
- b) brand name of audio equipment  
d) None of these
- (xiii) Anticipate that sound cannot travel through a
- a) plasma  
c) medium
- b) gas  
d) vacuum
- (xiv) Select the correct answer:A decibel is one tenth of a
- a) bel  
c) Bit
- b) hz  
d) byte
- (xv) Select which interdisciplinary science deals with the study of sound, ultra sound and infrasound -
- a) Acoustics  
c) notation science
- b) audio engineering  
d) none of these

### Group-B

(Short Answer Type Questions)

3 x 5=15

2. Create a R - tree to explain the spatial database. (3)
3. What is lip synchronization? (3)
4. Describe " Nyquist" theorem and write its application area.. (3)
5. Compare the NTSC, PAL and SECAM system of standard for television. (3)
6. Explain ' Virtual Reality'. (3)

OR

Differentiate between mp3 and mp4. (3)

### Group-C

(Long Answer Type Questions)

5 x 6=30

7. What are the uses of multimedia? (5)
8. A magnetic disc pack has 12 surfaces, out of which 10 are recordable. Each surface has 50 tracks and each track is divided into a number of sectors. If the total capacity of the disc is 50000 KB and the capacity of each sector is 512 bytes then calculate how many sectors are present on each track and how many cylinders are present in the disc pack? (5)
9. Describe the working principle of monochrome CRT. (5)
10. Encode the string ' BBBBFFRRRTFFGGHH' using Huffman encoding techniques. (5)
11. What is DCT and why DCT is important for compression? (5)
12. Explain the principles of animation. (5)

OR

Explain the terms: 'Frequency', 'Amplitude', 'Wave'. (5)

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