



B.C.A. (Semester – VI) (Revised) Examination, April 2015
MULTIMEDIA TECHNOLOGY

Duration : 2 Hours

Total Marks : 50

Instructions : 1) **All questions are compulsory.**
2) **Figures to the right indicate marks.**

1. A) Fill in the blanks : (5×1=5)

- i) In _____ multimedia, users have control over the content that is being showed to them.
- ii) Adobe illustrator is an example of _____ graphics.
- iii) _____ is the maximum displacement of a wave from an equilibrium position.
- iv) Full form of AAC is _____.
- v) Yellow Pages (Directories) is an example of _____ media.

B) Answer the following in **one** or **two** statements : (5×1=5)

- i) Give 2 examples of application of multimedia in the field of entertainment.
- ii) Give two examples of scalar graphics file format.
- iii) Define wavelength.
- iv) Define Codec.
- v) Give any 2 examples of print media.

2. Answer the following : (10)

- A) Define web-based multimedia. 2
- B) Discuss any 3 advantages of using web-based multimedia. 3
- C) Define multimedia and 'graphics' as an element of multimedia. Explain with an example how use of graphics enhances the quality of information. (1+1+3=5)

OR

- D) Define hypermedia. Differentiate between linear and non-linear multimedia. Explain why computer games should be of non-linear type ? (1+2+2=5)

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3. Answer the following : (10)
- A) Explain why TIFF file format is not suitable for web images ? 2
 - B) Differentiate between raster and vector graphics. 3
 - C) Explain RGB and CMYK colour modes. 5

OR

- D) Define graphic media. Write a short note on JPEG file format. Why JPEG is not suitable for line art or vector graphics ? (1+3+1=5)

4. Answer the following : (10)

- A) Define sampling rate and bit rate. 2
- B) State "Nyquist Sampling Theorem". What is the range of frequencies detectable by the human ear ? (2+1=3)
- C) Explain any 2 benefits of using digital audio. Calculate the size of 3 byte stereo audio of 360 seconds duration with sampling rate of 22.05 KHz. (2+3=5)

OR

- D) Define audio effects. Explain the following : (1+2+2=5)
 - i) Equalization and filtering
 - ii) Compression and limiting.

5. Answer the following : (10)

- A) Define video (visual) effects with example. 2
- B) Explain any three advantages of SWF file format. 3
- C) Discuss AVI and 3GP file format with respect to video media. 5

OR

- D) Define compression ratio. Discuss the use of intra, predicate and bidirectional frame in video compression. (1+4=5)