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)**

                                                                          P.T.O.

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)**

   _____

P.T.O.