END TERM EXAMINATION

SIXTH SEMESTER [BCA] MAY 2017

Paper Code: BCA-308	Subject: Multimedia & Its Applications
Time : 3 Hours	Maximum Marks :75

Note: Attempt any five questions including Q.no.1 which is compulsory.

Q1   Attempt **any ten**:   (10x2.5=25)
(a) Explain the Application and System Quality of service (QoS) parameters for MPEG video systems.
(b) Discuss the challenges/issues involved with multimedia communication.
(c) An audio signal is digitized at a sample rate of 44.1 KHz, a bit depth of 16 and in mono mode. Calculate the space occupied by a 10 minutes of the audio in MB.
(d) What are the criteria/factors to classify the multimedia (media)?
(e) Mention some of the important properties of Multimedia Systems.
(f) Write down challenges faced during the development of multimedia system.
(g) Explain the technical demands and constraints for real time multimedia systems?
(h) Discuss the purpose of Real Time Streaming Protocol (RTSP) in streaming stored audio/video?
(i) Differentiate between the Asynchronous Transmission and Synchronous Transmission Mode.
(j) What are the limitation of CD-ROM technology?
(k) Write down the advantages of Digital CD-DA technology.

Q2   What was the goal of developing CD-ROM? How many modes are there in CD-ROM? Explain the CD-ROM modes with the help of block layout for both of them.   (12.5)

Q3   What is the role of MIDI in context to music and computer? How many components are there in MIDI interface? Discuss all the four reception modes for MIDI device.   (12.5)

Q4   Write down the Multimedia Applications in context to following domains: (12.5)
(a) Application of Multimedia in Education Sector
(b) Application of Multimedia in IT Industry
(c) Application of Multimedia in Research and Development
(d) Application of Multimedia in Music Industry

Q5   Explain the Image Recognition Steps in detail with the help of a diagram.   (12.5)

Q6   Differentiate between the JPEG and MPEG compression. Explain the steps involved in JPEG compression process with the help of a figure. Write down the basic properties of Lossless and Lossy data Compression techniques.   (12.5)

[P.T.O]

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