

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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