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P.E.S. College of Engineering, Mandya - 571 401

(An Autonomous Institution affiliated to VTU, Belagavi)

Sixth Semester, B.E. - Information Science and Engineering Semester End Examination; May/June - 2018 Multimedia Computing

Time: 3 hrs Max. Marks: 100

Note: Answer FIVE full questions, selecting ONE full question from each unit.

UNIT - I

	01411 - 1						
1 a.	What is multimedia? Explain the key properties of a multimedia system.	10					
b.	List and explain three different types of transmission modes.						
c.	With a neat diagram, briefly explain the architecture of multimedia systems.						
2 a.	. What is MIDI? What are the components of MIDI? Explain.						
b.	b. Briefly explain the components of speech recognition system, with the help of a neat diagram.						
c.	Discuss the principles involved in speech transformation.	6					
	UNIT - II						
3 a.	With a neat flow diagram, describe the different steps required for image recognition.	10					
b.	b. Discuss the different methods of controlling animation and list any three animation languages.						
4 a.	a. Describe different image formats in which images are captured, stored and transmitted.						
b.	Discuss the importance of reconstructing an image. Illustrate with an example how split and merge	10					
algorithm is used in image segmentation?							
	UNIT - III						
5 a.	With a neat diagram, explain how image preparation is done in JPEG compression technique?	10					
b.	b. Explain H.261 and H.263 video compression standard in detail.						
6 a.	a. Explain the steps of the lossy sequential DCT-based coding mode in detail.						
b.	b. Discuss how audio encoding is performed in MPEG system.						
	UNIT - IV						
7 a.	What is CD-ROM? Explain different modes of CD-ROM and calculate its capacity.	10					
b.	b. Explain the following:						
	i) Optical disk ii) CD-ROM extended architecture	10					
8 a.	Explain Eight-to-Fourteen modulation process of error handling in CDDA.	10					
b.	Explain the process followed in storing data in digital audio data on CD.	10					
	UNIT - V						
9 a.	What is RIFF? Explain RIFF Audio Video Interleaved (AVI) file format.	10					
b.	. With a neat diagram, explain TWAIN architecture.						
10 a.	Explain the salient feature of TIFF file format.						
b.	Explain the various factors involved in designing a human interface for virtual reality applications.	10					