

MCA501

Reg. No. | | | | | | | | | | |

Fifth Semester M.C.A Degree Examination, December 2005

Master of Computer Applications

(Old Scheme)

Multimedia Communications

Time: 3 hrs.) (Max.Marks : 100

Note: ***Answer any FIVE full questions.***

1. (a) What are continuous and discrete media? Give examples. **(6 Marks)**
   (b) Mention the different data transmission model. **(4 Marks)**
   (c) Describe briefly data stream characteristics for continuous media. **(10 Marks)**
2. (a) Define frequency, amplitude, quantization. **(6 Marks)**
   (b) What are the components of speech recognition & understanding. **(4 Marks)**
   (c) What is MIDI? Explain its devices and messages. **(10 Marks)**
3. (a) If super VGA offers resolution up to 1024 x 768 pixels and color formats up to 24 bits per pixel. What is the storage capacity per image? **(4 Marks)**
   (b) What are the steps involved in recognition of image? **(6 Marks)**
   (c) Explain the important measures of visual representation of video signal. **(10 Marks)**
4. (a) Give the classification of compression techniques in multimedia system with example. **(6 Marks)**
   (b) Explain with example Huffman encoding technique. **(4 Marks)**
   (c) Explain briefly what are the steps involved in JPEG compression process. **(10 Marks)**
5. (a) What are the resources managed in multimedia operating system? **(6 Marks)**
   (b) Differentiate preemptive and non-preemptive task scheduling. **(4 Marks)**
   (c) Explain any two disk-scheduling algorithms with example. **(10 Marks)**
6. (a) With neat diagram explain the architecture of FDDI reference model. **(6 Marks)**
   (b) List the properties of FDDI. **(4 Marks)**
   (c) What is ATM? With ATM cell, explain its architecture. **(10 Marks)**
7. (a) Discuss group communication architecture. **(6 Marks)**
   (b) Express the following terms: TCP, UDP, RTP and XTP. **(4 Marks)**
   (c) Discuss the main features of multimedia server. **(10 Marks)**
8. Write short notes on:
   (a) Transmission of animation.
   (b) Color encoding signals.
   (c) MPEG-2.
   (d) Future direction of multimedia. **(4×5=20 Marks)**

** * **