

Reg. No. :

Question Paper Code : Z 8401

B.Sc. DEGREE EXAMINATION, NOVEMBER/DECEMBER 2009.

Elective

Computer Technology

BCS 001 — MULTIMEDIA SYSTEMS

(Common to B.Sc. Information Technology)

(Regulation 2003)

Time : Three hours

Maximum : 100 marks

Answer ALL questions.

PART A — (10 × 2 = 20 marks)

1. List the four approaches to provide QOS in high speed network.
2. Specify the pros and cons of linear prediction.
3. What is delta modulation?
4. List out the uses of sub-band coding in MPEG Audio.
5. Define aspect ratio.
6. Give the three measures of synchronization.
7. Mention the attributes of communication port in real time IPC.
8. What is a Microkernel?
9. Write the presentation services used in multimedia systems.
10. What are the key features of multimedia authoring tools?

PART B — (5 × 16 = 80 marks)

11. (a) (i) Survey the emerging multimedia application areas. (10)
(ii) Explain the specifications for multimedia synchronization. (6)

Or

- (b) (i) Explain the multimedia distributed processing model with a neat diagram. (12)
(ii) Briefly outline the fundamental requirements for multimedia system. (4)
12. (a) (i) What is MIDI? Explain the constructs and design of MIDI protocol. (8)
(ii) Explain the approaches used for speech production and recognition. (8)

Or

- (b) (i) Explain the techniques for transmission and processing of digital audio. (8)
(ii) Briefly describe any two TV standards. (8)
13. (a) (i) Explain the principles of video compression using transform coding techniques. (8)
(ii) Discuss the key features of MPEG layered bitstream structure. (8)

Or

- (b) (i) Distinguish between relative and absolute timing specifications. (6)
(ii) Describe the abstractions for multimedia authoring via representation schemes. (10)
14. (a) (i) Discuss the limitations in workstation operating system. (8)
(ii) Draw an architecture for middle-ware system services and explain its salient features. (8)

Or

- (b) (i) Briefly explain the interaction between multimedia system services and the client. (8)
(ii) What are the conditional requirements for media stream protocols? Explain. (8)

15. (a) (i) Outline the layered architecture of distributed media control system. (10)
- (ii) What is the degree of coupling between multimedia server and windows server? Explain. (6)

Or

- (b) (i) Discuss the three models of Hypermedia document. (8)
- (ii) What are the existing multimedia authoring paradigms? Describe each paradigm briefly. (8)

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