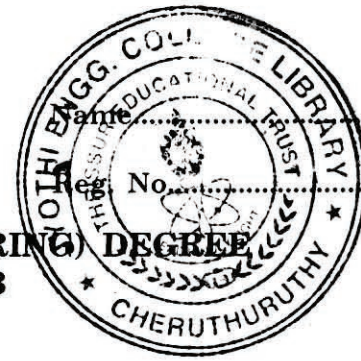C 41643

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EIGHTH SEMESTER B.TECH. (ENGINEERING) DEGREE EXAMINATION, APRIL 2013

CS 09 L15—MULTIMEDIA

(2009 Admissions)

Time : Three Hours

Maximum : 70 Marks

Part A (Short Answer Questions)

Answer all questions.
(One / two sentence)

1. How can we achieve computer supported integration in multimedia systems ?

2. What is video on demand ? List its types.

3. Draw a diagram that depicts the negotiation in QoS broker.

4. Which toolkits are used to control audio and video data processing ?

5. What is user interface ?

(5 × 2 = 10 marks)

Part B (Analytical / Problem Solving Questions)

Answer any four questions.

6. Explain the elements of document architecture with its functions.

7. What are the possibilities for using Ethernet for audio and video transmission ? Describe it.

8. How we can implement interaction between analog and digital environment ?

9. Dead line : 3, 3, 2, 3, 2, 1, 1, 2, 1

   Block number : 24, 30, 16, 50, 42, 45, 12, 40, 22

   All the blocks are located between the actual position of the head and the maximum track number 100 on the disk (scan in forward direction). Use SCAN-EDF algorithm for disk scheduling.

10. Explain the requirements that are needed for designing a user-friendly interface.

11. Explain the components of a distributed multimedia application.

(4 × 5 = 20 marks)

Part C (Descriptive/Analytical/Problem solving questions)

Answer all questions.

12. (A) How do you achieve synchronization in distributed environment ? Briefly explain the steps involved in it.

Or

Turn over

(B) Write the application that use multimedia to bring a different and more involved entertainment experience.

13. (A) With a neat diagram, explain the Interfacing components of a sound blaster card.

Or

(B) Which device acts as a heart of any MIDI system and explain how information is transmitted between MIDI devices.

14. (A) What are the measures for video signal representation. Explain in detail.

Or

(B) Explain in detail how MPEG is used to compress both audio and video. Also give the respective data streams.

15. (A) Explain the concepts of EDF and Rate Monatomic scheduling algorithms in detail. Differentiate these algorithms in terms of context switches and processor utilization with diagrams by considering the following :–

Or

(B) How group communication is performed in centralized or distributed control in multimedia computer co-operative work (CSCW). Explain its architecture.

(4 × 10 = 40 marks)