KUMARAGURU college of technology
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Register Number: …….

B.E DEGREE EXAMINATIONS: APRIL/ MAY 2016

(Regulation 2013)

Sixth Semester

COMPUTER SCIENCE AND ENGINEERING

U13CSTE32 : Multimedia Systems

Time: Three Hours **Maximum Marks: 100**

Answer all the Questions:-

PART A (10 x 1 = 10 Marks)

1. _____converts a sequence of words into an audio signal.
   a) Speech Generator b) Speech Recognition
   c) Speech Synthesis d) Speech Recognizer
2. MPEG is a standard under _____
3. Which is not a part of Multimedia frame work?
   a) Multimedia Information Model b) Multimedia Conferencing Model
   c) Multimedia Distributed Processing Model d) Multimedia Content Development Model
4. In transmission technology, _____ refers to the variation of delay generated by the transmission equipment.
5. Which of the following technique is most suitable for the below given case. “Compression of a sequence of tokens with same tokens often appearing consecutively”.
   a) Arithmetic coding b) LZW coding
   c) DPCM d) Run length coding
6. According to the Nyquist theorem, we need to sample an analog signal _____ times the highest frequency component.
7. The term that describes a user's participation with a multimedia presentation is _____
   a) Reactivity b) Inactivity
   c) Interactivity d) Hyperactivity
8. The _____ module of HyTime is used to represent concepts involving dimension, measurement and counting.
9. Architectures of Multimedia communication can introduce
   i. Unifying principles which avoid redundancy of common services
   ii. Reduce number of devices
   iii. Interfaces that the user deals with
   a) (i) only b) (ii) only
   c) (iii) only d) (i),(ii) and (iii)
10. During reads the slope may vary from one read to the next because of _____ of the media.

PART B (10 x 2 = 20 Marks)

(Answer not more than 40 words)

11. List the capabilities of a Multimedia system.
12. What is the difficulty in handling multimedia using traditional DBMS?
13. Define Synchronization and its types.
14. Give reason for why I-frames are inserted into the compressed output stream.
15. Give the fundamentals of data communication.
16. List the real time constraints of multimedia over LAN and WAN.
17. Distinguish between hypermedia text and hypertext.
18. Outline the formula for minimum block size and sector size for the buffer to support single stream.
19. Define an Intelligent Multimedia System.
20. Outline the Lancaster Continuous Media storage systems.

PART C (5 x 14 = 70 Marks)

(Answer not more than 400 words)

Q.No. 21 is Compulsory

21. (i) Sketch and explain a QoS layered model for the multimedia communication systems. (7)

    (ii) Write a note on Speech recognition and Synthesis. (7)

22. (a) (i) What is the need of compression? Explain in detail the MPEG compression techniques. (7)

    (ii) What are the main types of multimedia data? For each media type briefly relate to the issues involved in generating, capturing and storing the respective media components. (7)

(OR)

(b) (i) Discuss in detail about PAL and SECAM broadcasting standards. (7)

(ii) Explain about Group III and IV Bilevel image compression standards. (7)

23. (a) With suitable block diagram, discuss in detail about Video conferencing. How Multimedia conferencing is better than video conferencing.

(OR)

(b) (i) Explain the bandwidth requirements of various multimedia elements with suitable example. (7)

(ii) Write about the architecture of network based multimedia services for supporting the requirements of multimedia applications. (7)

24.	(a)	(i)	List and explain important design issues in authoring systems.	(7)
		(ii)	Write short notes on media creation tools.	(7)
			(OR)	
	(b)	(i)	What key features of QuickTime has led to its adoption and acceptance as an International Multimedia Format?	(7)
		(ii)	Write about various platforms for creation and delivery of multimedia application.	(7)
25.	(a)	(i)	Explain the Medium stream protocol.	(7)
		(ii)	Write about the various approaches in retrieving the unstructured data based on content.	(7)
			(OR)	
	(b)	(i)	Explain in detail about the file system support for continuous media.	(7)
		(ii)	List the basic issues for supporting distributed continuous media applications in traditional workstation operating systems.	(7)

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