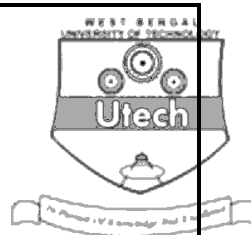


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36011 (06/07)



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CS / M.Tech (MSS) / SEM-2 / MSS-204 / 09
MULTIMEDIA DESIGN & E-LEARNING SYSTEMS
SEMESTER - 2



Time : 2 Hours]

[Full Marks : 70

The figures in the margin indicate full marks.

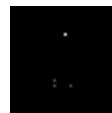
Candidates are required to give their answers in their own words as far as practicable.

Answer any *five* questions, taking at least *two* from each Group. $5 \times 14 = 70$

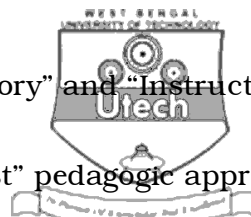
(All the answer should be brief and to the point. State your assumptions, if any, clearly)

GROUP – A

1. a) What do you mean by sensory memory, working memory and long-term memory in context to the cognitive memory model ? Discuss with a given example on the semantic network model for memory.
b) Briefly discuss on the characteristic features of the HCI design patterns.
c) What do you mean by human computer dialog ? 7 + 4 + 3
2. a) Briefly explain the coding and decoding blocks utilized in Linear predictive coding of audio of signals.
b) State and explain the basic techniques for the sub-band band encoding of speech signals.
c) What do you mean by auditory masking ? 6 + 6 + 2
3. a) What do you mean by colour histogram of an image ? State how it is utilized in CBIR (Content Based Image Retrieval).
b) Discuss the salient features of auto-correlogram for CBIR and state it's merit in comparison with colour histogram. 6 + 8
4. Write short notes on : 7 + 7
 - a) Lip synchronization
 - b) Watermarking.



GROUP – B



5. a) Briefly explain the relation between “Learning theory” and “Instructional model.”
b) Discuss the basic ideas behind the “Constructivist” pedagogic approach. How can you implement “Constructivist” approach in a instructional design ?
c) Compare strength and weakness of different learning theories. How do you select the best learning theory for an “Instructional Model” ? 4 + 5 + 5
6. a) Explain the different components of a MH-object class. What is Composite Class ?
b) Which areas should be considered to implement Quality Assurance mechanism in a ICT enabled course ?
c) What is ‘Course Management System’ ? 6 + 5 + 3
7. a) What is SCORM ? How SCORM components work with LMS ?
b) Briefly explain the system architecture of LTSA. State the data flow paths in this architecture. 6 + 4 + 4
8. a) What is learning object ?
b) Explain how the IMS content packaging specification may be used to represent a learning object.
c) Illustrate the generic XML schema of ASI Object. Use this schema to generate the XML code for a LID type question. 2 + 3 + 3 + 6

END