B.E. Sem. VIII - CMPN - (Rev)
Multimedia System
Design. - 26/05/2015

QP Code : 8155

T.MARKS-100

(3 Hours)

N.B. : (1) Question No.**01** is compulsory.

(2) Attempt any **Four** Questions from the remaining **Five** questions.

(3) Assume suitable data wherever required.

Q.No.01 a. What is multimedia? Draw and explain the workstation based architecture for multimedia systems. 10

b. Explain in detail MIDI Communication protocol. 10

Q.No.02 a. Explain MPEG-1 Compression in detail. 10

b. List and explain different types of Image Scanners. 10

Q.No.03 a. Differentiate between TIFF and RIFF file format 05

b. Explain the terms Scaling, Cropping and Rotation in Image Manipulation. 05

c. Explain in detail RIFF DIBS file format. 10

Q.N0.04 a. Explain Virtual Reality Design Considerations. 10

b. What is An Authoring System? Explain different types of Authoring System. 10

Q.No.05 a. What are the Components of Multimedia System? 10

b. Explain Audio Compression in detail . 10

Q.No.06 a. Draw and explain workflow for Video Messaging and Video Conferencing. 10

b. Explain different Scheduling and policing Strategies in Multimedia Networking. 10

Q.No.07 Write Short notes on **any Two** of the following 20

a. Multimedia Animation

b. Digital Camera

c. JPEG Compression

BE- SEM VIII - Comp

Software Architecture

20 May - 2015

QP Code : 8094

(3 Hours) **[Total Marks : 100**

N.B. (1) Question No. **1** is **compulsory.**
(2) Attempt any **four** out of remaining **six** questions.
(3) **Figures** to the **right** indicate **full** marks.

1. (a) Explain how Middleware and component frame-work induces Architectural styles. **5**
   (b) What is the difference between one way and round trip mapping. **5**
   (c) Explain 4+1 view in UML **5**
   (d) Explain Data Access Connector. **5**

2. Design a Domain specific software Architecture (DSSA) for "Make My Trip", a vacation management system. Assume suitable entities, attributes etc. Domain model must consist of the following – **20**
   (i) Domain Dictionary and Information Model
   (ii) Feature Model and Operation Model.

3. (a) What is SOA and Web-services. **10**
   (b) What is consistency in Analysis. **10**

4. (a) Draw framework for classifying connectors and explain it in detail. **10**
   (b) Discuss design issues in NFP : Hetroginity and Scalability. **10**

5. (a) Explain basic features of xADL used as modeling language. **10**
   (b) Explain MVC architectural Pattern and give an example of an application where it is used. **10**

6. (a) Explain with suitable diagram Architectural Trade off Analysis method. **10**
   (b) Name and describe different deployment activities. **10**

7. Write short note on any **four** of the followings :– **20**
   (a) CORBA
   (b) REST
   (c) Lightweight C2 framework
   (d) Examples and applications applicable to Pipe and filter, Blackboard Architectural Styles
   (e) Software degradation.

14/5/2015

B.E. (comp) VIII Rev.

HCI

QP Code : 8017

(3 Hours) **[Total Marks : 100**

N.B. i)Question No. 1 is Compulsory.

ii) Attempt any four questions out of remaining questions.

Q.1 a) Explain principles of user interface design. [10]

b) Explain User Interface Design Process in detail. [10]

Q.2 a) What are possible uses of colors and problems associated with it? [10]

b) Explain in detail about positioning and pointing devices . [10]

Q.3 a) Explain important human characteristics and Human considerations in User Interface Design. [10]

b)Write guidelines for design of effective error messages for a software development Environment. [10]

Q.4 a)Explain in detail about the following techniques determining requirements . [10]
Categorize them as direct or indirect method:
(i) Competitor analysis
(ii) Paper survey or Questionnaire
(iii) Card Sorting
(iv) Usability laboratory testing
(v) User Interface Prototyping

b) Design the User Interfaces for web based Address book application. [10]

Q.5 a) Explain techniques of Organizing, Ordering and Grouping of screen data [10]

b) Explain various selection and presentation controls . [10]

Q 6 a) Differentiate between GUI and Web based systems. [10]
b)Explain the qualities of visually pleasing composition. [10]

Q.7 Write short note on any two of the following: [20]

(i) Menu Structures

(ii) Importance of Good User Interface

(iii) User Interface Building Tools

(iv) Speech Recognization Systems

01-06-15

B.E. Comp. Sem VIII (Rev) June-2015

Sub — Distributed Computing

QP Code : 8309

(3 Hours) **[Total Marks : 100**

Note (1) Q.No.1 is compulsory
(2) Solve any 4 questions from the remaining questions.

Q1. a) Explain Distributed system models with diagram. 10
b) Explain RPC system model in detail. 10

Q2. a) What are the good features of a Distributed File System? Explain file sharing semantics of it. 10
b) Explain various forms of message oriented communication with suitable example. 10

Q3. a) Explain Distributed algorithm for mutual exclusion. What are the advantages and disadvantages of it over centalized algorithms. 10
b) Compare stateful and stateless servers. 10

Q4. a) Explain the distributed algorithms for clock synchronization. 10
b) What are the common strategies used for handling deadlocks in distributed systems. 10

Q5. a) Define Thrashing. What are the methods used for solving thrashing problems. 10
b) Explain the different load estimation policies and process transfer policies used by load balancing algorithms. 10

Q6. a) Write a note on system oriented names and human oriented names. 10
b) Discuss file caching for distributed system. 10

Q7) Write short note on (any two) 20
a) Light-weight RPC
b) Distributed Transaction Management
c) Distributed computing environment (DCE)
d) Election algorithms

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