

B.E. Comp. sem VIII M-2014

Sub- DC.

03/06/14

Q P Code : MV-19366

(3 Hours)

[Total Marks : 100

- N.B. : (1) Question No. 1 is compulsory.
(2) Solve **any four** from the remaining **six** questions.

1. (a) What is the need of removing unreferenced entity? 5
(b) "Vector Time Stamp mechanism for synchronization is used for capturing causality of events". Justify. 5
(c) What are goals of distributed system? 5
(d) What are the statefull and stateless servers. 5
2. (a) Explain distributed algorithm for mutual exclusion. What are the advantages and the disadvantages of it over centralized algorithm. 10
(b) Explain Absolute Ordering and Casual Ordering Process with the help of examples for many to many communication. 10
3. (a) Discuss issues concerned with parameter passing in RPC. 10
(b) What are good features of a Distributed File Systems? Explain file sharing semantics of it. 10
4. (a) Explain recursive name resolution with advantages and disadvantages. 10
(b) Define Thrashing. What are the methods used for solving thrashing problems? 10
5. (a) Explain the design issues with respect to Distributed Computing Environment. 10
(b) What is the notion of a context in namespace? Explain the different clustering and context binding strategies of names. 10
6. (a) Explain the different load estimation policies and process transfer policies used by load balancing algorithms. 10
(b) Explain various forms of message oriented communication with suitable examples. 10
7. Write short note on following **any two**. 20
 - (a) Object Adapter
 - (b) Light-weight RPC
 - (c) Consistency Models
 - (d) Fault Tolerance.

B.E. - COMP - Sem - VII 28/5/14
MSD -

QP Code : MV-19188

(3 Hours)

[Total Marks : 100

N.B.: (1) Question NO.1 is compulsory.

(2) Solve any four questions from the remaining six questions.

(3) Assume suitable data wherever required.

1. a) You are appointed as a consultant to develop an implementation strategy for an automated tourist system that helps its customers to plan these tours. The system has agencies that provides services like air, railway, luxury, economic planning of tour; hotels, services etc. for such a system – Design the multimedia authoring system and also specify the multimedia data base schema for the same. [10]
b) Draw and explain workstation based architecture for multimedia system. Also specify hardware and software expected at each layer (if any) considering an example. [10]
2. a) Explain Chroma sub sampling. [05]
b) What is HDTV standard? [05]
c) Explain different motion vector search techniques. [10]
3. a) How to manage resources during multimedia transmission. [10]
b) Explain different audio compression algorithm. [10]
4. a) Explain JPEG methodology, compare it with JPEG2000 std. [10]
b) Compare and contrast TIFF file format with RIFF file format. [05]
c) Explain elements of multimedia systems. [05]
5. a) Explain distributed client server operation. [10]
b) Explain human factors and design considerations related to virtual reality. [10]
6. a) Draw neat labeled diagram for flat bed scanner. Explain scanning mechanism and CCD used in scanning operation. [10]
b) Explain copyright act of multimedia. [10]
7. Write short notes on following (Any two) [20]
 - a) Digital camera
 - b) Distributed Multimedia databases
 - c) MIDI communication protocol.

Comp: Software Architecture
Sem VIII

22 May 2014

(3 Hours)

Q P Code : MV-19129
[Total Marks : 100

N.B. : (1) Question No. 1 is compulsory.
(2) Attempt any four questions from the remaining.

1. (a) What are different types of connectors based on interactive services? 5
(b) What do you mean by Architectural degradation? Explain architectural drift and architectural degradation? 5
(c) Differentiate between Software Architecture and Software Design. 5
(d) Explain how Middleware and component framework induces Architectural Styles. 5
2. (a) Design a Domain Specific Software Architecture (DSSA) for the Airline Ticket Management System. Assume suitable entities, Attributes etc. Domain model must consist of the following :
 - (i) Domain Dictionary and Information Model 10
 - (ii) Feature Model and Operation Model 10
3. (a) List various Architectural Styles? Explain any two in detail? What is the difference between Architectural Styles & Architectural patterns. 10
(b) Explain with an examples Stakeholder driven modeling. 10
4. (a) Explain the various features of xADL used as a modeling language. 10
(b) Explain MVC Architectural pattern and give an example of an application where it is used. 10
5. (a) What is REST? Explain its Architecture. 10
(b) With the help of example explain different types of inconsistencies in an Architectural model 10
6. (a) What is a mapping problem in implementation? Differentiate between one way and round trip mapping. 10
(b) Explain different criteria for evaluating implementation frame work. 6
(c) Explain simulation based framework. 4
7. Write short notes on the following :- 20
 - (a) Ambiguity, Accuracy and precision in the characterization of Architectural models.
 - (b) Different dimensions of dependability
 - (c) Design issues for NFPs:-Complexity, Heterogeneity
 - (d) Lightweight C2 framework.

Advanced Internet Technology (REV)
BE Comp sem - VIII 31/5/2014

QP Code : MV-19057

(3 Hours)

[Total Marks : 100

- N. B. :** (1) Question No. 1 is **compulsory**.
(2) Attempt any **four** questions out of remaining **six**.

1. (a) Explain working of a search engine 10
(b) Discuss working of DHCP (Dynamic Host Configuration Protocol) and give its packet format 10
 2. (a) What is AJAX? Explain its role in web applications with example 10
(b) Describe Virtual Private Network (VPN) and state its usefulness 10
 3. (a) Explain working of File Transfer Protocol (FTP) with suitable diagram 10
(b) What is a web service? Explain its architecture 10
 4. (a) Discuss various security issues in cloud 10
(b) Explain working of Bittorrent (Peer to peer architecture) 10
 5. (a) What is RSS? Explain its advantages 10
(b) Describe various deployment techniques in cloud computing. 10
 6. (a) Give working of Amazon cloud 10
(b) What is resource oriented architecture (ROA)? Explain its different features / properties. 10
 7. Write a short note on (any two) :- 20
 - (a) HTML 5
 - (b) Integrating PHP and AJAX
 - (c) Secure payment mechanism.
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QP Code : **MV-19051**

(3 Hours)

[Total Marks : 100

- N.B. :** (1) Please mention your answers with neat sketch
(2) Question No. 1 is compulsory
(3) Solve any four questions from remaining questions.
(4) Answers to each new question to be started on a fresh page.

1. (a) Explain principles of good design. 10
(b) Explain various types of text input devices 10
2. Develop system menus & navigation menus for a online system intended for generation of transcript (which is summary of academic record) for student who has completed the course. 10
3. (a) What are mental models & why are they important in interface design. 10
(b) What are different styles of interaction in human computing interaction. 10
4. (a) What are sensory memory, long term memory and short term memory? Why they are important in interface design. 10
(b) Explain physical characteristics of the user that should be considered in user interface design. 10
5. (a) Distinguish between GUI & web interface. 10
(b) Explain the following requirements gathering techniques in brief. 10
 - (a) Traditional Focus Group
 - (b) Competitor Analyses
 - (c) Support Line
 - (d) User Interface prototyping
 - (e) Card sorting for web sites
6. (a) What are various types of device based & screen based controls? Explain in brief. 10
(b) Explain importance of communication with user for a system? What do you mean by clear text messages? Explain with suitable example. 10
7. Write a short note on (any two) : 20
 - (a) User focus & design focus
 - (b) Interaction design process
 - (c) Software building tools for interface design.
 - (d) Statistical graphs.