12/12/2011 BE COMP VIII (REV) Human computing Interaction

92: 2nd Half-Exam.-11 mina (c).

Con. 6440-11. **(REVISED COURSE)** **MP-5203**

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

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

1. (a) Explain the importance of good design. [5]
   (b) What is direct and indirect manipulation? [5]
   (c) How people can interact with computer? How people are getting trouble with computers? [5]
   (d) Explain influences on icon usability. [5]
2. (a) Describe advantages and disadvantages of graphical system. [10]
   (b) Explain user interface design process [10]
3. (a) What is the use of interface building tools? Also explain features of these tools. [10]
   (b) What are mental models and Why are they important in interface design? [10]
4. (a) Explain human consideration in screen design and also explain ordering of screen data and content. [10]
   (b) Explain proper device base controls. [10]
5. (a) Explain technological considerations in interface design. [10]
   (b) What is color? Explain various types of color. What are the possible uses of colors and Problems associated with it? Give guidelines to choose proper color for web page. [10]
6. (a) What are pointing devices? Write tasks and explain about direct control pointing devices. [10]
   (b) Explain Keyboards with its layouts, keys and function keys. [10]
7. Write a short note on any <u>two</u> of the following: [20]

   (i) Software tools and specification methods

   (ii) Visually pleasing composition

   (iii) Speech recognition and speech generation

   (iv) Types of windows.

1/12/2011 B.E. CMPN. Software. Architecture. VIII

VT-Sept.-11- 141

Con. 6255–11. **(REVISED COURSE)** **MP–5192**

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

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

1. Answer the following :– **20**
   (a) How is Software architecture different from Software design ?
   (b) Explain how Middle ware and Component frame-work induces architectural style.
   (c) What are the different types of connectors based on interactive services ?
   (d) Explain in brief the guidlines of a good Software architecture for achieving NFP (no-functional property) goals.

2. (a) Explain Prescriptive and Descriptive architecture with examples. **10**
   (b) Compare the Model-based and Simulation-based analysis techniques used in Software architecture. **10**

3. (a) Compare and contrast on the following :– **10**
      (i) Event-based and Client-server based Data Distribution Connectors.
      (ii) Static and dynamic aspects of Models in Software Architecture.
   (b) List various architectural styles. What are the differences between Architectural styles and Architectural patterns. **10**

4. (a) Explain the basic 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) Comment on the styles of architecture pattern for a Mobile Code and Implicit Invocation. **10**
   (b) Explain the Distributed Object Style in connection with CORBA middle ware. **10**

6. (a) Define and explain the following terms :– **8**
      (i) Architectural drift and Architectural errosion
      (ii) Architectural model and Architectural recovery.
   (b) Suggest an Architecture with Implicit Invocation style for the following system :– **12**
   The KWIC (Key Word in Context) index system accepts an ordered set of lines. Each line is a ordered set of words and each word is a ordered set of characters. Any line may be 'circularly shifted' by repeatedly removing the first word and appending it at the end of the line. The KWIC index system outputs a listing of circular shifts of all lines in an alphabetical order.

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7. Write short notes on the following :– **20**
   (a) Ambiguity, Accuracy and precision in the characterization of architectural models.
   (b) Service-oriented Architecture and Web Services
   (c) Domain Specific Software Architectures (DSSAS)
   (d) Architecture Description Language (ADL).

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7/12/11 BE CMPN VIII CREDS
Multimedia System Design

8 : 2nd half.11-AM(e)

Con. 6276-11. **(REVISED COURSE)** **MP-5200**

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

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

1. (a) You are appointed as a consultant to setup a multimedia laboratory in an engineering institute. Give specifications of components, configuration, connecting software etc. along with the assumptions. **10**
   (b) What are the components of Distributed Multimedia system. **10**

2. (a) Explain MPEG 1 compression in detail. **10**
   (b) What is Authouring system ? Explain different types of Authouring system. **10**

3. (a) Explain RTP, RTCP, RSVP, RTSP and IP multicast. **10**
   (b) Explain Level 0 through level 5 of RAID functionality. **10**

4. (a) What are different types of workflow ? Suggest application of mail enabled workflow. **10**
   (b) Explain virtual reality design considerations. **10**

5. (a) Explain in detail MIDI communication protocol. **10**
   (b) Explain the print out technology. Hence explain the working of a Laser Printer. **10**

6. (a) Explain JPEG DIB file format for still and motion images. **10**
   (b) List atleast two multimedia software tools for the following :— **10**
   Digital audio, graphic and image editing, video editing, animation, multimedia authoring.

7. Write short notes on any **two** of the following :— **20**
   (a) Hypermedia Application Design consideration
   (b) Video conferencing : Design issues
   (c) Scheduling and policy mechanism in multimedia networking.

16/12/11 BE CMPN VIII (REV) Distributed Computing

VT-Sept.-11- 177

Con. 6740–11. **(REVISED COURSE)** **MP–5188**

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

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

1. (a) What are the major issues in designing a distributed operating system ? **5**
(b) What are the main similarities and differences between the RPC Model and the ordinary procedure call model ? **5**
(c) What are the statefull and stateless servers ? **5**
(d) Differentiate : Replication vs Caching ? **5**

2. (a) Explain various forms of message-oriented communication with suitable example. **10**
(b) Compare processes and threads. Explain user and kernal level threads execution and also the need of light-weight threads. **10**

3. (a) What are the different failure that can occur in RPC system ? Discuss the solutions for these failures. **10**
(b) Compare data-centric and user centric consistencies and explain one consistency model of each type. **10**

4. (a) Explain desirable features of a good naming system. **10**
(b) What is CORBA ? Explain its Architecture and various services provided by it. **10**

5. (a) Explain distributed algorithm for mutual exclusion. What are the advantages and disadvantages of it over centralized algorithms ? **10**
(b) Explain main issues in building a DSM system on a network of heterogeneous machines. **10**

6. (a) Explain the process of synchronization w.r.t. physical and logical clocks. **10**
(b) Explain lightweight RPC. **10**

7. Write short note on any **two** :– **20**
(a) Fault Tolerance
(b) Attacks and Security in a Distributed System
(c) Issues in Designing Load Sharing Algorithms.

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