B.E. Comp. Sem. VIII (Rev) Nov. 2012

Sub:- Distributed computing

REV

D Scan Pra 1 2

Con. 10254-12.

(REVISED COURSE)

KR-5238

(3 Hours)

[Total Marks : 100

N.B. (1) Question No. **1** is **compulsory**.
(2) Answer any **four** from the remaining **six.**

1. (a) Explain the reasons why the use and popularity of distributed systems are rapidly increasing, despite the increased complexity and difficulty of building it. **10**
   (b) Explain how transparency is achieved in Remote Procedure Calls. **10**

2. (a) With neat diagrams, explain the failure handling mechanisms for message passing. **10**
   (b) Compare stateful and stateless servers. **10**

3. (a) What are the commonly used semantics for ordered delivery of multicast messages ? **10**
   (b) Define thrashing. What are the methods used for solving thrashing problems ? **10**

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

5. (a) Explain the different Load estimation policies and process transfer policies used by load balancing algorithms. **10**
   (b) With neat diagrams explain the commonly used ways in which threads of a process are organized. **10**

6. (a) What are the main approaches to verify the validity of cached data in DFS ? **10**
   (b) Compare the characteristic features of system Oriented names and Human Oriented names. **10**

7. Write short notes on (any **two**) :– **20**
   (a) Distributed Computing Environment (DCE)
   (b) Heterogeneous DSM
   (c) Election algorithms.
   (d) Fault tolerance of DFS.

B.E Sem. VIII Comp. (Rev) Dec- 2012

78 : 2nd half-12-(h) JP

VIII Comp. Rev. Multimedia Syst Design Dec-12

Con. 9144-12. (REVISED COURSE) KR–4623

(3 Hours) [Total Marks : 100

N.B.: (1) Question No. **1** is **compulsory**.
(2) Solve any **four** questions from remaining **six** questions.
(3) Assume **suitable** data wherever **required**.

1. (a) Explain elements of multimedia systems. 5
   (b) Compare and contrast TIFF file format and RIFF file format. 5
   (c) Describe the algorithm for CCITT group 3 std. How does CCITT group 4 differ from CCITT group 3 ? 10

2. (a) What is Authoring System ? Explain different types of Authoring System. 10
   (b) Draw neat labelled diagram for flat bed scanner. Explain scanning mechanism and CCD used in scanning operation. 10

3. One of most important application using both technologies networks and multimedia is distance learning. You are appointed as a consultant to design the system. For such an application :— 20
   (i) Specify the hardware and software requirements for the same, if this application is to be used in distributed environment.
   (ii) Design its workflow and hence design the entire multimedia system.

4. (a) Explain MPEG-1 compression in detail. 10
   (b) Explain multimedia system architecture. 10

5. (a) Explain in detail MIDI communication protocol. 10
   (b) What are the components of Distributed multimedia systems. 10

6. (a) Explain copy right act of multimedia. 10
   (b) How to manage resources during multimedia transmission. 10

7. Write short notes on any **two** :— 20
   (a) Multimedia system design methodology
   (b) Knowledge based multimedia systems
   (c) Distributed multimedia Databases.

B.E. Sem. VIII Comp. (Rev) Nov. 2012

Sub:- Software Architecture

P4-RT-Exam.-Oct.-12-165

Con. 9128–12. **(REVISED COURSE)** **KR–4407**

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

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

1. (a) What is a difference between view and view point ? 4
   (b) What are the different types of connectors based on interactive services ? 4
   (c) What is a difference between one-way and round-trip mapping ? 4
   (d) What is a reference architecture ? How does it differ from an ordinary software architecture ? 4
   (e) Differentiate between software Architecture and Software design. 4

2. (a) Name and describe the different deployment activities. 10
   (b) Explain the distributed object style in connection with CORBA middleware 10

3. (a) What type of applications are applicable for following styles and give examples of each – 10
      (i) Event-based
      (ii) Pipe and filter
      (iii) Layered
      (iv) Mobile Code
      (v) Black-board.
   (b) How is perscriptive architecture different from descriptive architecture ? Explain with example. 10

4. (a) Is scenario driven analysis a special case of static analysis or dynamic analysis. Justify with one example each. 5
   (b) Why is system based analysis important if you have already completed component and connector level analysis ? 5
   (c) What is an architecture implementation framework ? How does an architecture implementation framework differ from middleware ? 5
   (d) Write short note on domain specific software architecture. 5

5. (a) What do you mean by stakeholder Driven modeling ? Explain in detail. 10
   (b) Discuss Service Oriented Architecture (SOA) and web services. 10

6. (a) What is REST ? Explain its architecture. 10
   (b) With the help of an example, explain different types of inconsistencies is an architectural model. 10

7. Write short notes on the following :– 20
   (a) Software Architecture and Deployment
   (b) Hightweight C2 Framework.

B.E. Sem - VIII Dec. 05/12/2012

(Comp. CRev)

Sub: Comp. Vision

AGJ–2nd half (n)–12–14

Con. 10015–12. (REVISED COURSE) KR-4995

(3 Hours) [Total Marks : 100

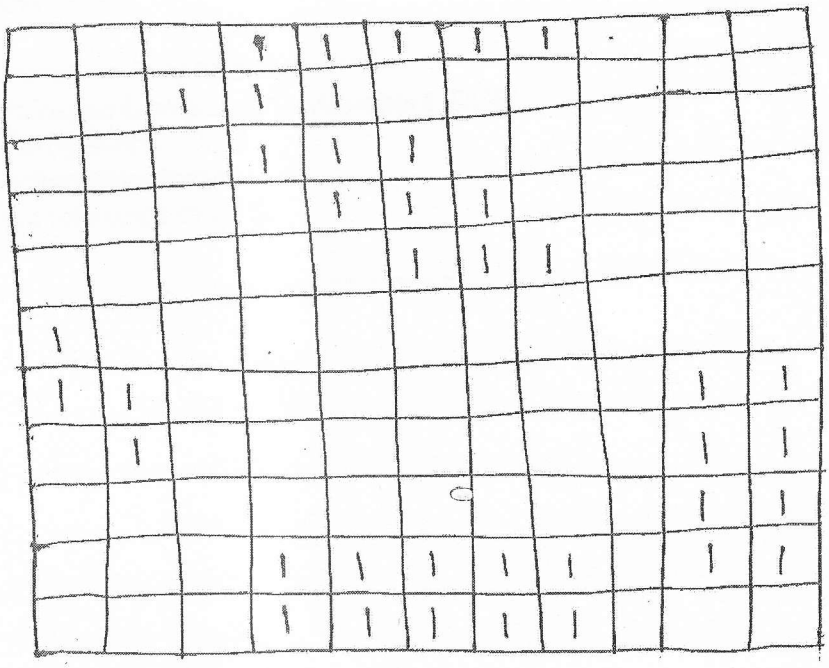
N.B. : (1) Question No. 1 is **compulsory**.
(2) Attempt any **four** questions out of remaining **six** questions.
(3) Assume **suitable** data wherever **necessary** and state it.

1. Answer any **four** of the following :– **20**
   (a) Define Erosion and Dilation.
   (b) Discuss significance of chain codes in object representation.
   (c) What are gray scale moments ?
   (d) What is inverse perspective projection ?
   (e) What is zero crossing edge detector ?

2. (a) Give all the steps involved in the recognition methodology and briefly explain each. **10**
   (b) Explain rule-based segmentation in brief. **10**

3. (a) Describe algorithm for automatically calculating threshold value by minimizing within group variance. **10**
   (b) Explain Border tracking algorithm with suitable example. **10**

4. (a) Obtain the Horizontal, vertical and diagonal signatures of the binary image segment shown below. **10**



   (b) Explain 2-D object representation by Global and Local features. **10**

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5. (a) What is Hough Transform ? Using Hough transform show that the pixels (1, 1), (2, 2), (3, 3) and (4, 4) are collinear and hence find the equation of the line. 10

   (b) What are control strategies ? Discuss two major forms of control strategies. 10

6. (a) Explain in detail the consistent labelling problem. 10

   (b) What is knowledge based vision ? Explain different forms of knowldge representation used in computer vision. 10

7. Write short notes on any **four** :– 20

   (a) Intensity matching - one dimensional signal

   (b) View-class Matching

   (c) Facet model Recognition

   (d) Principal component analysis

   (e) Information Integration.
