DS BE(comp) (2)

B.E Sem-VIII Computer (Rev) May-2012

Lib

Distributed computing

Con. 4452-12. **(REVISED COURSE)** **GN–8270**

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

N.B. (1) Question No. **1** is **compulsory**.
(2) Attempt any **four** questions, out of **remaining** questions.
(3) **All** questions carry **equal** marks.
(4) Draw **neat** diagram wherever **required.**

1. (a) Explain Distributed computing systems models with diagram. **10**
   (b) Explain desirable features of a good distributed file system. **10**

2. (a) Compare and contrast Mutual Exclusion Algorithms. **10**
   (b) Explain Failure handling in message passing. **10**

3. (a) Discuss the Issues in designing Load-balancing algorithm.**10**
   (b) Explain communication protocols for RPC.**10**

4. (a) Explain Stateful file servers and Stateless file servers and its advantages. **10**
   (b) Write a note on Group communication. **10**

5. (a) Write a note on System oriented names and Human oriented names .**10**
   (b) Explain the different distributed physical clock synchronization algorithms with their relative advantages and disadvantages. **10**

6. (a) Explain various consistency models in DSM. **10**
   (b) Explain RPC implementation mechanism. **10**

7. Write short notes on : (any **four**) **20**
   (a) Thrashing
   (b) Token ring algorithm
   (c) DCOM
   (d) File – Caching schemes
   (e) Process migration
   (f) Naming and security

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on. 3981-12. **(REVISED COURSE)** **GN-7577**

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

Elective-II - Comp Vision.

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

1. (a) What are Gray Scale Moments ? 5
(b) Explain Vanishing point and Vanishing line. 5
(c) Explain Information Integration. 5
(d) What is Zero Crossing edge detector ? 5

2. (a) Explain Recognition Methodology. 10
(b) Explain Run Length implementation of algorithm. 10

3. (a) Describe algorithm for automatically calculating threshold value by minimizing within group variance. 10
(b) Explain region growing algorithm with suitable example :— 10
(i) Centroid Linkage
(ii) Hybrid Linkage
(iii) Single Linkage.

4. (a) Explain Signature Segmentation with suitable example. 10
(b) Explain Border Tracking algorithm with suitable example. 10

5. (a) What is knowledge based Vision ? Explain different forms of knowledge representation used in Computer Vision. 10
(b) What is Control Strategies ? Discuss the two major form of Control Hierarchical and Heterarchical. 10

6. (a) Explain 2-D object representation by Global and Local features. 10
(b) Explain uniform error estimation algorithm for least-square curve fitting. 10

7. Write short notes on (any **four**) :— 20
(a) Rule Based Segmentation
(b) Facet Model Recognition
(c) Ordered Structural Matching
(d) Hough Transform
(e) Extremal points on a Region
(f) View Class Matching.

VT-F.H.Exam. April.-12-125

Con. 3634-12.

(REVISED COURSE)

GN-7418

(3 Hours)

[Total Marks : 100

S.A.

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

1. Design Domain-Specific Software Architecture (DSSA). For the Theater Ticket Management system. Assume suitable entities, attributes etc. Domain model must consists following :– **10**
   (a) Domain Dictionary and Information Model. **10**
   (b) Feature Model and Operational Model.

2. (a) Explain with a suitable example the event type connector and its variation dimensions. **10**
   (b) Define the following terminology :– **10**
      (i) Configuration
      (ii) Architectural style
      (iii) Architectural patterns
      (iv) Accuracy and precision
      (v) Views and viewpoints.

3. (a) Define Architectural analysis. Discuss various analysis goals with an example ? **10**
   (b) Explain with an example stakeholder driven modeling. **10**

4. (a) Explain various designing issues for following non-functional properties :– **10**
      (i) Efficiency and Complexity
      (ii) Scalability and Hetrogeneity.
   (b) Discuss Service-Oriented Architectures (SOA) and Web Services. **10**

5. (a) Explain with the help of suitable diagram Architectural Trade-off Analysis Method (ATAM). **10**
   (b) Explain the existing frameworks for the pipe-and-filter and C2 Architectural style. **10**

6. (a) Discuss an Architectural Conception in Abscence of Experience. **10**
   (b) Explain with an example Software System Mobility and Architecture. **10**

7. Write short note on (any **two**) :– **20**
   (a) Decentralized Architectures
   (b) REST
   (c) Software Architecture and Deployment
   (d) Lightweight C2 Framework.

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GN-7565

Con. 3703-12.

(REVISED COURSE)

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

MSD.

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) What is Multimedia animation ? **5**
(b) Explain elements of multimedia systems. **5**
(c) Compare MPEG with H.264. **5**
(d) Explain effective HCI. **5**

2. (a) Describe the algorithms for the CCITT group 3 standards. How does CCITT Group 4 differs from CCITT Group 3 ? **10**
(b) Explain in brief various parts and the set of visual descriptors in MPEG-7. **10**

3. (a) Explain RIFF and write the pseudo code for the file extension WAV, RMI, RDI, PAL for RIFF file format. **10**
(b) Explain JPEG Methodology. Compare it with JPEG 2000. **10**

4. (a) Explain MIDI Devices. Distinguish between channel messages and system messages giving example. **10**
(b) Explain multimedia system architecture. **10**

5. (a) Explain ADPCM in speech coding scheme. **10**
(b) Write short note on Copyright and methods of licensing for multimedia. **10**

6. (a) Explain Multimedia authoring system design issues and its types. **10**
(b) List and explain the factors consider designing multimedia systems which provide virtual reality functionality. **10**

7. Write short notes on :—
(a) Distributed Multimedia Systems **10**
(b) Storage Requirements. **10**

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