

# BE (Sem VIII) Computer Distributed Computing

QP Code : 8309

[Total Marks : 100]

(3 Hours)

1-06-2015

- 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 centralized 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

RJ-Con. 11446-15.

BE VIII (R) computer  
QP Code : 8155  
Sub - multimedia system design  
(3 Hours)

Date - 26/05/2020

T.MARKS-100

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.No.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
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# BE (Sem VIII) Computer Software Architecture

QP Code : 8094

1/1

- 5-15

(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.**

- (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

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.

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

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

- (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

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

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.



BE (Sem VIII) Computer .

14-5-15

Human Computing Interface. **QP Code : 8017**  
**(3 Hours)** **[Total Marks : 100]**

1/1

- 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 Recognition Systems