5161/2

May 2012

T.E (IT) Sem VI Rev

Programming for Mobile & Remote Comp.

1 : 1st half-12-(Con-4727)JP

Con. 4727-12. **GN–9236**

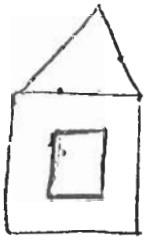
(3 Hours) **[Total Marks : 100**

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

1. (a) Write an MIDP application that creates an interactive gauge. **10**
   (b) Give details of Model-1 and Model-2 architecture with suitable application. **10**

2. (a) What is difference between Servlet and Midlet ? **10**
   (b) Create a web page to search students by student Roll. No. using JSP. **10**

3. (a) Explain the architecture of J2EES. **10**
   (b) Write Midlet for following. **10**



4. (a) What is Profile ? Explain J2ME Profile. **10**
   (b) Explain working of MMS. **10**

5. (a) Write and explain the MIDP application for low level event handling using canvas class. **10**
   (b) Write short note on :— **10**
      (i) Image class
      (ii) Canvas class.

6. (a) What is a Midlet suite ? How security is handled in Midlet suit ? **10**
   (b) Explain the class structure of Game API. **10**

7. Write short note on following :— **20**
   (a) Struts
   (b) Obfuscator
   (c) Hibernet
   (d) SMS.

Sem-VI(R) - IT. - Information Tech for Mgt of enterprise 9/May-2012

AGJ 1st half (m) 5

Con. 4858-12. GN–9737

(3 Hours) [Total Marks : 100

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

1. Attempt any **four** questions :– **20**
   (a) Explain with example Data, Information and Knowledge.
   (b) Compare Old economy and New economy.
   (c) Explain with example utility computing.
   (d) What is meant by e-commerce (EC) ? Explain with example pure EC and partial EC.
   (e) What is data ware housing ? Discuss benefits and characteristics of data ware housing.

2. (a) With the help of neat diagram, explain Business Intellegence (BI) components and its architecture. **10**
   (b) Explain Re-engineering principle with example. **10**

3. (a) Explain what do you mean information system. Explain with example formal and informal information system. Discuss computer based IS. **10**
   (b) What is supply chain management ? What is need of SCM ? Explain working and advantges of SCM. **10**

4. (a) Explain the importance of communication and collaboration technology to process knowledge management. **10**
   (b) Explain vairous electronic payment system. Explain security in electronic payement. **10**

5. (a) Explain ethical and legal issues in E-commerce. **10**
   (b) Explain learning organization and their characteristics. **10**

6. (a) What is business model ? What are major pressures in business environment ? **10**
   (b) What is difference between EIS and ESS ? Give example of each. **10**

7. Attempt any **four** :– **20**
   (a) Virtual corporation
   (b) Decision Support System (DSS)
   (c) Business process management
   (d) Tangible and intangible supply chain management
   (e) Transaction Processing System (TPS).

31/5/2012

TE (IT) Sem VI (Rev)

112-p3-d-upq-FH KL12 B

Con. 4541-12. Middleware & Enterprise Int. tech GN–8645

(3 Hours) [Total Marks : 100

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

1. (a) What are the challenges faced by distributed system ? **10**
   (b) What do you understand by middleware ? State the advantage of ORB architecture. **10**

2. (a) Explain client-server architecture. What are its variations or types of client-server architecture ? **10**
   (b) Discuss the key services provided by DCE. **10**

3. (a) State the disadvantage of standard RPC. List the characteristics of RMI. **10**
   (b) How is remote CORBA object invocated ? Explain RMI in CORBA. **10**

4. (a) List the components of EJB framework. What is the purpose of EJB container ? **10**
   (b) Explain DCOM and .NET framework. **10**

5. (a) Define service. How is a business servive implemented ? **10**
   (b) Discuss SOA and Web Service. **10**

6. (a) How would you align business and IT using SOA ? How will you implement a WS using an agent ? **10**
   (b) What are WS-standards ? Explain WS-Security Framework. **10**

7. Write short notes on any **two** :— **20**
   (a) Server types
   (b) WS-transactions
   (c) COM-IDL.

TE/IT/VI (REV) 2015/1/2
Software Engineering

V-Ex-Scan

Con. 4045-12. GN-7328

(REVISED COURSE)

(3 Hours) [Total Marks : 100

N.B. : (1) Question No. 1 is **compulsory.**
(2) Attempt any **four** questions out of remaining **six** questions.
(3) All questions carry **equal** marks.
(4) Assume suitable data if **necessary.**

1. A system is designed for evaluation of various tenders received by an organization. It had various steps like data entry of bids, tabulation of bids, preparation of lowest bid document, entry of actual orders with actual prices negotiated, preparation of a 'deviation document' that will record all differences between lowest bid and actual orders. The entire system was built under text based UNIX and is being proposed to be changed to a GUI and windows based system. Draw data flow diagram (level 0, 1, 2, 3) and control flow diagram describing all details. 20

2. (a) Explain Software Configuration Management in detail. 10
(b) Compare and Contrast Coupling and Cohesion. 10

3. (a) Explain risk identification, risk projection, RMMM plan in detail. 10
(b) Explain how Gantt-chart can be used for planning and controlling small Projects with suitable example? What are the limitations of Gantt-Chart ? 10

4. (a) Explain various steps involved in SRS for case study in question no. one. 10
(b) What is feasibility study? Explain its types, contents and purpose. 10

5. Explain the difference between – 20
(i) White Box and Black Box Testing
(ii) Component Based Model and Spiral Model.

6. (a) Describe project scheduling and tracking with any suitable example. 10
(b) Explain in detail software project plan with case study in question no. one. 10

7. Write Short Notes on any **two** :- 20
(a) CMM and Key Process Areas
(b) Security engineering
(c) Reengineering
(d) Design Concepts and Principles.

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T.E (I.T) sem VI (R) 22/5/2012

Con. 3782-12. Database Technologies GN–7337

(3 Hours) [Total Marks : 100

N.B. (1) Question No. **1 is compulsory.**
(2) Answer any **four** out of remaining questions.
(3) Assume any **suitable** data if **necessary** and clearly state it.

1. a) Explain Object Identity and Type Constructors. [05]
   b) Explain the term Data Transparency. [05]
   c) Explain two phase commit protocol. [05]
   d) Differentiate between Data warehouse and Data base system. [05]

2. a) Database is being constructed to keep track of the teams and games of a sports league. A team has a number of players, not all of whom participate in each game. It is desired to keep track of the players participating in each game for each team, the positions they played in that game, and the result of the game.
   i) Design an EER schema, stating any assumptions you make. [07]
   ii) Show mapping of EER schema to relational schema. [05]

   b) What are multidimensional databases? How do these store data? [08]

3. a) Suppose a company would like to design a data warehouse to facilitate the analysis of moving vehicles in an online analytical processing manner. The company registers huge amounts of auto movement data in the format of (*Auto ID, location, speed, time*). Each *Auto ID* represents a vehicle associated with information, such as *vehicle category, driver category*, etc., and each location may be associated with a street in a city. Assume that a street map is available for the city.
   Design a data warehouse to facilitate effective online analytical processing and Write DMQL for above schema. [10]
   b) Explain with proper example nested relation in ORDBMS. [10]
4. a) Explain in details the major steps in the ETL process. [10]
   b) Explain design and implementation issues in Mobile databases. [10]

5. a) Consider the following global schema:
   BOOKS (Book#, Primary_author, Topic, Total_stock, $price)
   BOOKSTORE (Store#, City, State, Zip, Inventory_value)
   STOCK (Store#, Book#, Qty)
   i) Give an example of two simple predicates that would be meaningful for the BOOKSTORE relation for horizontal partitioning.
   ii) How would a horizontal derived partitioning of STOCK be defined based on the partioning of BOOKSTORE.
   iii) Show predicates by which BOOKS may be horizontally partitioned by topic.
   iv) Show how the. STOCK may be further partitioned from the partitions in (ii) by adding the predicates in (iii). [10]
   b) What are the main architectures used for building parallel databases? Give advantages & disadvantages of each. [10]

6. a) Explain in brief the architecture of data warehouse. [10]
   b) Consider relation R (PQRSTU) with following functional dependencies.
      $P \rightarrow Q$
      $ST \rightarrow PR$
      $S \rightarrow U$
      State R is in which normal form? Decompose it to BCNF. [10]

7. Write short note on [20]
   a) Referential integrity.
   b) Authorization in SQL.
   c) Spatial Databases.
   d) Temporal Databases.

TE|IT|VI (Rev.) 17/5/12
INS

53 : 1st half-12-(i)JP

Con. 3731-12. **GN–7332**

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

N.B. (1) Question No. **1** is **compulsory**.
(2) Answer any **four** out of the **remaining** questions.
(3) Answers to subsections must be answered **together**.

Q1. (a) Consider an online fees payment system. People will cast their votes through the Internet. For this system identify vulnerability, threat and attacks. (05)
(b) Define the terms Confidentiality, Integrity and Availability. Give one example each of two attacks each that violates these goals. (05)
(c) Describe any two non malicious program flaws. (05)
(d) Explain the session hijacking attack with an example. (05)

Q 2. (a) Explain clearly the differences between block and stream ciphers. (10)
(b) Give a list of network vulnerabilities with an example each. (10)

Q3.(a) Differentiate between public and private key cryptosystems. Give Examples of each type of cryptosystem. (10)
(b) Write a note on different authentication methods. (10)

Q.4. (a) Describe the various types of viruses that can infect a system. (10)
(b) What is the role of a firewall in securing a network? Describe different types of firewalls. (10)

Q.5 (a) Use two prime numbers p=3, q=5, and explain the full working of the RSA Cryptosystem. (10)
(b) Explain any two access control mechanism. Indicate clearly the advantages and disadvantages of each scheme. (10)

Q.6 (a) Explain the protocol flaws existing in the TCP/IP model that can lead to security incidents & how to overcome them. (10)
(b) What is the role of hashing? Explain any one hashing algorithm. (10)

Q.7. Write a detailed note on any one of the following topics :
(a) Intrusion Detection Systems (10)
(b) Secure Sockets Layer (SSL) (10)