

18/5/2011

T.E IT VT (Rev)  
Info? Tech. for Mgmt of Enterprise

P4-Exam-May-11-2011  
Con. 2923-11.

RK-2766

(3 Hours)

[Total Marks : 100

**N.B.:** 1. Question No. 1 is compulsory.

2. Attempt any 4 questions out of remaining six questions.

- Q 1. Solve any four ; (20)
- a) Explain operational, managerial, and strategic activities?
  - b) Explain ethical and legal issues in ecommerce?
  - c) Write a short notes on Virtual corporations?
  - d) Describe role of IT in BPR? Why BPR projects fail?
  - e) Explain with example cost-benefit analysis?
- Q 2. a) Define Utility computing and describe its benefits? (10)
- b) Why should a organization change ERP solutions?  
Give Pros and Cons of switching? (10)
- Q 3. a) Explain EC order fulfillment process? (10)
- b) What are the difference between an EIS and an ESS? Give example for each. (10)
- Q 4. a) Explain learning organization and their characteristics? (10)
- b) Explain types of CRM and classifications of CRM application? (10)
- Q 5. a) Explain IT benchmarks and metrics? (10)
- b) Explain the importance of communication and collaboration technologies to the process of knowledge management? (10)
- Q 6. a) Explain Reengineering principals with example? (10)
- b) Explain traditional EDI & internet based EDI? (10)
- Q 7. a) Explain process of IT application acquisition? (10)
- b) What are structured and unstructured problems? Give one examples of each in the following three areas: finance, marketing, and personnel administration? (10)
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14/6/11

T.E IT VT (REV)  
Prog. for Mobile & Remote  
computers  
RK-2757

Con. 3236-11.

(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.

1. (a) Explain methods in servlets life cycle. 5  
(b) List and explain the advantages of MIDP. 5  
(c) Compare CLDC 1-0 and CLDC 1-1. 5  
(d) Explain protocol stack of Bluetooth. 5
2. (a) Explain architecture of JaVaEE5. 10  
(b) Explain the following terms :— 10
  - (i) Obfuscator
  - (ii) MIDlet
  - (iii) Servlet
  - (iv) Application descriptor
  - (v) Containers
3. (a) Write short note on :— 10
  - (i) Struts
  - (ii) Hibernate.
- (b) Write an MIDP application for low level event handling using Canvas class. 10
4. (a) Explain Model-1 and Model-2 architectures. 10  
(b) Write short note on :— 10
  - (i) Image Class
  - (ii) Alert Class
5. (a) Define profile. Explain J2ME profiles. 10  
(b) Create a web page which searches a book by book title and author name using JSP. 10
6. (a) What is MIDlet suite ? Explain MIDlet suite security. 10  
(b) Write an MIDP application that creates an interactive gauge. 10
7. (a) Explain structure of Web Applications. 10  
(b) Explain various classes in Game API. 10

9/6/2011

T.F IT VI (Rev)  
Middle Wave of Enterprises Integat  
Technologies

Con. 3656-11.

(REVISED COURSE)

RK-2763

(3 Hours)

[ Total Marks : 100

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

- Q1. Attempt any FOUR questions [20]  
A. What is meant by service in SOA? What are different types of services?  
B. How CORBA IDL is mapped to java format? Which files compiler generates?  
C. What are the drawbacks of XML DTD?  
D. What are the types of marshalling supported by COM?  
E. Create persistent bean class for Result where roll\_no and total\_marks are persisted to the database.  
F. What is the need of IDispatch Interface in COM?
- Q2. A. What is an IDL? Write CORBA IDL for an application, which takes marks in History and marks in Geography and returns average marks [10]  
B. State and explain different Object Location Services in CORBA? [10]
- Q3. A. Describe stub, skeleton and interfaces used in RMI technology, CORBA and COM/DCOM technology [10]  
B. Draw DCOM architecture and explain how DCOM works? [10]
- Q4. A. What are apartments in DCOM? Explain their type in detail. [10]  
B. Draw and Explain .NET architecture. [10]
- Q5. A. What is ESB? Why ESB become the logical choice to implement SOA? [10]  
B. What is RMI? Is it language independent? [05]  
C. Define Socket? What are named pipes? [05]
- Q6. A. What are the types of Enterprise Beans? Explain Stateful Session beans and Stateless Session Beans. [10]  
B. Describe the steps in developing an application using EJB Framework. [10]
- Q7. A. Write XML schema for the following description:  
A BOOK has following characteristics-- Title, no. of authors, pages, Price, Binding (can be of types- Paper or Hard), Edition, Publisher. [10]  
B. Create sample XML document for the description of the BOOK stated above.  
Write ant two path queries on above document. [05+05]

4/6/2011

T.E IT VT (Rev)  
Software Engineering

Con. 2953-11.

(REVISED COURSE)

RK-2754

(3 Hours)

[ Total Marks : 100

- N.B. :** (1) Question No. 1 is compulsory.  
(2) Answer any **four** of the remaining **six** questions .  
(3) Draw **sketches** wherever **applicable**.

1. (a) Explain Spiral model. Compare and differentiate it with the sequential model. 10  
(b) Explain CMM along with the levels and activities within each level. 10
  2. (a) List down and explain software design principles. 10  
(b) List down different effort estimation techniques. Explain COCOMO in detail. 10
  3. (a) What do you understand by Quality Assurance ? Explain the levels of quality assurance. 10  
(b) Explain risk analysis and management in detail. 10
  4. (a) Explain change control in detail along with software configuration items and baseline. 10  
(b) Explain requirement engineering. 10
  5. (a) Explain Basis path testing and cyclomatic complexity in detail. 10  
(b) What do you understand by metrics. List down and explain process and project metrics. 10
  6. (a) List down and explain the activities of project scheduling and tracking. 10  
(b) Explain agile methodology using SCRUM. 10
  7. Write short notes on any **four** :— 20
    - (a) Re-engineering
    - (b) Software Project Planning
    - (c) Version Control
    - (d) Security Testing
    - (e) Software Design Document.
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Con. 3196-11.

(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.

- |        |   |    |
|--------|---|----|
| 1. (a) | Explain the following terms :-  | 5  |
|        | (i) Inheritance, (ii) Specialization.   |    |
| (b)    | Explain Replication in Distributed Databases.                                       | 5  |
| (c)    | Compare Data Warehouse and Data Mart.   | 5  |
| (d)    | Explain BCNF with suitable example.   | 5  |
| 2. (a) | Explain concept of referential integrity with an example.                           | 10 |
| (b)    | Explain with proper example nested relation in ORDBMS.                              | 10 |
| 3. (a) | Explain security and authorization in SQL.  | 10 |
| (b)    | Explain design and implementation issues in mobile databases.                       | 10 |
| 4. (a) | Describe the event-condition-action model for triggers. Why triggers are required ? | 10 |
| (b)    | Suppose, that we decompose the schema $R = (A, B, C, D, E)$ into                    | 10 |
|        | (A, B, C)   |    |
|        | (A, D, E)   |    |

Show that this decomposition is a lossless-join decomposition if the following set F of functional dependencies holds :-

- $A \rightarrow BC$   
 $CD \rightarrow E$   
 $B \rightarrow D$   
 $E \rightarrow A$

5. (a) What are the main architectures used for building parallel databases ? Give 10 advantages and disadvantages of each.
- (b) Explain the following concepts with examples : 10
- (i) Object Identity
  - (ii) Type Constructor.
6. (a) All electronics company have sales department sales consider three dimensions 10 namely :-
- (i) Time (ii) Product (iii) Store.
- The schema contains a central fact table sales with two measures :-
- (i) dollars-sold and (ii) units-sold.
- Design star schema and snowflake schema.
- (b) Define data warehouse. Explain the architecture of data warehouse with 10 suitable block diagram.
7. Write short notes on (any two) :- 20
- (a) Spatial Databases
  - (b) OLAP Servers
  - (c) Vertical and Horizontal Fragmentation in Distributed Databases.

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(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) Answer to the questions should be **grouped** and written **together**.  
 (5) Assume any **suitable** data wherever required but **justify** the same.

- |    |    |   |    |
|----|----|---|----|
| 1. | a) | Explain different kinds of threats to information security.   | 5  |
|    | b) | Does a PKI use symmetric or asymmetric encryption? Explain your answer.   | 5  |
|    | c) | What are the information security goals? Explain why the balance among different goals is needed.   | 5  |
|    | d) | What are different types of malicious code?   | 5  |
| 2. | a) | Explain Advanced Encryption Standard Algorithm in detail.   | 10 |
|    |    | OR  |    |
|    | a) | Use the Playfair cipher to encipher the message, "The key is hidden under the door pad". The secret key can be made by filling the first and part of the second row of a matrix with the word "GUIDANCE". Filling of rest of the matrix can be done with remaining alphabets. Consider alphabets 'Y', and 'Z' together in one cell of the matrix. | 10 |
|    | b) | Write a note on Kerberos system that supports authentication in distributed system.   | 10 |
| 3. | a) | Explain control of access to general objects in operating system.   | 10 |
|    | b) | Explain nonmalicious program errors with examples.  | 10 |

4. a) If generator  $g = 2$  and  $n$  or  $p = 11$ , using Diffie - Hellman algorithm solve the following.
- i) Show that 2 is a primitive root of 11. 4
  - ii) If A has a public key '9', what is A's private key? 2
  - iii) If B has a public key '3', what is B's private key? 2
  - iv) Calculate the shared secret key. 2
- b) Explain different denial of service attacks. 10
5. a) List, explain and compare different kinds of firewalls used for network security. 10
- b) List and explain the contents of a security plan for administrative security. 10
6. Write a detail note on (any two): 20
- a) E-mail security
  - b) RSA algorithm (Public key algorithm)
  - c) Data Encryption Standard (symmetric key algorithm)
  - d) Covert channel .
7. a) What is the term Risk analysis? Explain in detail the steps in Risk analysis. 10
- b) How is physical security provided for protection needed outside the computer system? 10
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