

MCA (SEM II) - NOV - DEC 2013

S.T. 02/12/13

23-10-2013-DTP-P-7-MU-13

Con. 4284-13.

PG - 8341

(3 Hours)

[Total Marks : 100

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

1. (a) Generate decision table based test cases for web based company selling computers (CPU), Printers (PR), Monitors (M) and additional memory (RAM) of the purchase order :- **10**
 - (i) M20 and M23 can be purchased with any CPU or as a stand alone item but M30 can only purchased with CPU3.
 - (ii) Purchase of CPU1 gets RAM256 upgrade and PR1 and RAM512 are available free with the purchase of CPU2 or CPU3.
 - (ii) The RAM 1GB upgrade and a free PR2 is available when CPU3 is purchased with Monitor M30.
 - (iv) Monitors and printers except for M30, can also be purchased separately without purchasing any CPU.
- (b) Explain general V-Model and its impact on Software Testing. **10**
2. (a) Explain the different steps involved in the review process and explain different types of reviews? **10**
- (b) Compare black box testing and white box testing, give your justification that how these two are complementary to each other. **10**
3. (a) Explain Incident Management in detail with the purpose of an incident status model. **10**
- (b) What are the different tool selection criteria? Which steps are required for introducing a tool? **10**
4. (a) Explain the role of testing in SDLC and explain Fundamental test process. **10**
- (b) Explain control flow and data flow analysis in static analysis with examples. **10**
5. (a) Describe test plan. How tests are prioritized and what is test exit criteria? **10**
- (b) Explain cost and economy aspect of testing. **10**
6. (a) What is a state transition testing? Explain with examples in detail. **10**
- (b) Explain white box testing techniques, as statement coverage, path coverage and branch coverage with examples. **10**

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7. Write a short notes on any **four** :-

- (a) Testing Vs Debugging.
 - (b) Structural Vs OO testing.
 - (c) Preventive Vs Reactive Approach.
 - (d) Acceptance Testing.
 - (e) W-Model.
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5
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4/12/13

Wireless Tech.

Con. 3013-13.

PG-8345

(3 Hours)

[Total Marks : 100]

N.B. : (1) Question No. 1 is **compulsory**.(2) Answer any **four** questions from Question Nos. 2 to 7.(3) **Figures** to the **right** indicate **full** marks.(4) Draw **suitable** diagrams wherever **necessary**.

1. (a) What are the challenges of modern wireless communication system? Explain any two in detail. **10**
 - (b) What is spread spectrum? What are its advantages? Explain any one spread spectrum technique with suitable illustration. **10**
 2. (a) Explain the basic components of GSM network architecture. **10**
 - (b) What is WML and WML script used for? State and explain any five WML tags. **10**
 3. (a) What is Bluetooth? Briefly outline the Bluetooth Architecture. **10**
 - (b) What is WiMAX? Explain the basic component and setup of WiMAX networks. **10**
 4. (a) What is Hand over? Explain different types of hand over in cellular networks. **10**
 - (b) Briefly outline the architecture of 802.11 protocol for wireless communication. **10**
 5. (a) Describe in brief the use of cordless system for telecommunication. **10**
 - (b) What is CDMA? Compare CDMA with TDMA and FDMA techniques. **10**
 6. (a) Briefly outline the use of WPA2 in implementing wifi security. What are its advantages? **10**
 - (b) Explain with suitable illustration the WAE components. **10**
 7. Write short notes on any **four** :- **20**
 - (a) Multiplexing
 - (b) Application of wireless system
 - (c) MIDP
 - (d) TAPI
 - (e) Mobile operating system.
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(3 Hours)

[Total Marks : 100

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

1. (a) Write short notes on the followings :— 12
 - (i) Distributed operating system
 - (ii) Thrashing
 - (iii) Happened before
- (b) (i) Differentiate among bridge, router and gateway. 4
 (ii) Differentiate between strong consistency model and causal consistency model. 4
2. (a) What is a stub ? How are stubs generated ? Explain how the use of stubs help 10
 in making an RPC mechanism transparent.
- (b) Explain the concept of logical clocks and their importance in distributed systems. 10
 A clock of a computer system must never run backward. Explain how this issue can be handled in an implementation of logical clocks concept.
3. (a) What are election algorithms ? Explain ^bfully algorithm in detail with diagram. 10
 (b) Explain ~~fully~~ ^{fully} the concept of preemptive process migration. What are different 10
 address space transfer mechanisms used in the process transfer.
4. (a) Discuss the relative advantages and disadvantages of the various data locating 10
 mechanisms that may be used in a distributed shared memory system that uses the Replicated Migrating Blocks (RMB) strategy.
- (b) (i) Why do most RPC systems call-by-value semantics for parameter passing. 5
 (ii) What are threads ? How are they different from processes ? 5
5. (a) What are the main differences between the load balancing and load sharing 10
 approaches for process scheduling in distributed systems ?
- (b) In your opinion where (in server memory, in client disk or in client memory) should 10
 a cache for caching data be located in the following types of distributed file systems (give reasons for your answer) :—
 - (i) One that supports diskless workstations
 - (ii) One in which the ratio of number of clients to number of file servers is very large.

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6. (a) What is callback RPC facility ? Give an example of an application where this facility may be useful. **10**
- (b) Discuss the relative advantages and disadvantages of using full-file caching and block caching models for the data-caching mechanism of a distributed file system. **10**
7. Write short notes on any **two** topics :— **20**
- (a) Munin distributed shared memory system
 - (b) Mach distributed system
 - (c) Group communication in message passing
 - (d) Light Weight RPCs.
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10/11/2/13

RT-Exam.-Oct.-13-4-1
Con. 3112-13.

M.C.A. sem V (Rev)
Ada. web Technology PG-8350
(3 Hours) [Total Marks : 100]

- N.B. :** (1) Question No. 1 is **compulsory**.
 (2) Solve any **four** questions from Question Nos. 2 to 7.
 (3) All question carries **equal 20** marks.

1. (a) Explain the Architecture of .NET Frameworks. 10
 (b) What are the implicit objects in JSP ? Explain the different implicit objects supported by JSP. 10

2. (a) Explain the exception Handling Mechanism of C#. 10
 (b) What is Session Management ? Explain how session can be handled in Servlet using cookies. Write a simple Servlet to design a page visit counter using cookie. 10

3. (a) Explain validation controls in ASP.NET with example. 10
 (b) What is Request Dispatcher ? Explain it with suitable example. 10

4. (a) What is Page Event ? Explain the page life cycle of ASP.NET page with an example. 10
 (b) What are the different building block of JSP program ? Explain with example. 10

5. (a) What is Web Service Architecture and explain S.O.A. characteristics supported by Web Services. 10
 (b) Explain the difference between following :- 10
 - (i) Inline Coding and Code Behind Coding in ASP.NET
 - (ii) Include directive and Include Standard Action.

6. (a) What is DTD ? Explain in details about DTD. What is XML Schema ? Explain in details about XML Schema. 10
 (b) Design a user Registration form for a recruitment site and process it using Servlet program. 10

7. Write short notes on following (any four) :- 20
 - (a) Assemblies
 - (b) Servlet life cycle
 - (c) Threading Models in Servlet
 - (d) Virtual method in C#
 - (e) Http Servlet and Generic Servlet.

Con. 6403-13.

(3 Hours)

[Total Marks : 100]

- N.B. :** (1) Question No. 1 is **compulsory**.
 (2) Attempt any **four** questions out of the remaining **six** questions.
 (3) **Each** question carries **20** marks.
 (4) **Figures** to the **right** indicate **marks**.

1. (a) What are the objectives of "Supply Chain Management"? List the three decision phases of supply chain and explain any one in details. **10**
 - (b) What is demand planning and forecasting? Explain the characteristics of forecast in details. **10**
 2. (a) Describe cycle view of supply chain in details. **10**
 - (b) List various inventory management models. Explain "Just in Time" and "Vendor Managed Inventory" models in details. **10**
 3. (a) Name the six performance drivers of supply chain management and explain any two performance drivers in details. **10**
 - (b) Name the various modes used in transportation management. On what basis one should decide what is the best mode of transport? **10**
 4. (a) "Product packaging is the main selling driver in the FMCG industry". Comment with focus on the logistics aspect. **10**
 - (b) What is the role and functionality of transportation in SCM? Who are the different participants in transportation management? **10**
 5. (a) Identify the factors influencing supply chain network design decision and explain each factor in brief. **10**
 - (b) Name various demand forecasting methods and explain any two in details. **10**
 6. (a) What is the importance of warehousing in logistic management? Explain "Cross Docking" in brief. **10**
 - (b) Write short note on "Traditional and Modern approach of SCM". **10**
 7. Write short notes on (any **four**) :- **20**
 - (a) Private fleet management
 - (b) Economic order quantity
 - (c) Role of IT in SCM
 - (d) Benchmarking in supply chain
 - (e) Network optimization model.
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Con. 4302-13.

PG-8354

(3 Hours)

[Total Marks : 100

- N.B.** (1) Question No. 1 is **compulsory**.
 (2) Attempt any **four** questions from the **remaining** questions.

1. (a) Generate Huffman tree for the following alphabets :— 10

M	N	O	P	Q	R	S	T
0.22	0.28	0.23	0.26	0.24	0.27	0.25	0.57

Calculate the total number of bits required to transfer these alphabets.
 - (b) What is the importance of GUP in Multimedia Project ? Explain the golden rules of GUP in detail. 10
 2. (a) Explain in detail analog display standard and digital display standard. 10
 - (b) What do you understand by idea analysis ? Explain the process of making multimedia. 10
 3. (a) List all the primary task that go into producing a multimedia project. Place these steps in logical order. Comment on these steps whether they are critical to the time line. 10
 - (b) Differentiate between :— 10
 - (i) Alpha Development and Beta Development
 - (ii) Lossy Compression Technique and Lossless Compression Technique.
 4. (a) What is animation ? Explain in detail the principals of animation. 10
 - (b) Explain the roles and responsibilities of all the multimedia team members. 10
 5. (a) Discuss Video Recording and Tape Formates in detail. 10
 - (b) What are the different types of Multimedia Authoring tools ? Discuss the difference between card based and time base authoring tool with the help of suitable example. 10
 6. (a) What are the different types of multimedia structures ? Explain in detail with the help of suitable examples. 10
 - (b) What are the different graphics file formats ? Explain the difference between vector Graphics and bit map Graphics. 10
 7. Write short notes on :— 20
 - (a) Interactive multimedia
 - (b) JPEG and GIF
 - (c) MIDI
 - (d) Computer based multimedia.
-

Con. 4302-13.

PG-8354

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