

Sem-V M.C.A.

15/5/12

AGJ 1st half (n)-Con-Cod 77
Con. 3645-12.

Sub: S. T.

UK-5006

(3 Hours)

[Total Marks : 100

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

1. (a) What is State Transition Testing Technique? Draw the transition tree for a Stack. (10)
(b) Explain functional and non-functional testing. (10)
 2. (a) What is data flow analysis and explain various data anomalies with an example? (10)
(b) Write the different steps involved in the review process. (10)
 3. (a) Describe test plan. How tests are prioritized? What are test exit criteria? (10)
(b) Explain the test objectives, test environment and test strategies for integration testing. (10)
 4. (a) Compare black box testing and white box testing. Explain with the help of an example. (10)
(b) Explain statement coverage, branch coverage and path coverage testing technique with examples? (10)
 5. (a) Explain Intuitive versus experienced based approach and Analytical versus Heuristic Approach for testing. (10)
(b) Explain the cost and economy aspects of testing. (10)
 6. (a) What are incidents? How are incidents classified? Explain an incident status model? (10)
(b) Describe criteria for selection and introduction of test tools. (10)
 7. Write short notes on any four: (20)
 - (a) V-Model
 - (b) Agile Methodology
 - (c) Equivalence Class Partitioning Testing Technique
 - (d) Automated Testing
 - (e) Gray box Testing
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- N.B. :**
1. Question No. 1 is compulsory
 2. Attempt any four questions from the remaining
 3. All questions carry equal marks
 4. Figures to right indicate marks

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|----|----|---|----|
| 1. | A. | Discuss the architecture and the services provided by the IEEE 802.16 | 10 |
| | B. | Describe CDMA & WCDMA access techniques | 10 |
| 2. | A. | What is GPRS and explain the architecture of GPRS | 10 |
| | B. | Explain briefly Antennas with example | 10 |
| 3. | A. | Describe different error-detecting and error-correcting codes used .
where is Forward error-Correcting code used | 10 |
| | B. | What is the difference between soft hand-off and hard hand -off | 10 |
| 4. | A. | What is Pico-net and scatter-net | 10 |
| | B. | Describe Frequency Hopping and direct sequence spread spectrum
technique | 10 |
| 5. | A. | What is wireless transmission? Compare digital and analog
transmission techniques | 10 |
| | B. | Explain briefly XHTML with example | 10 |
| 6. | A. | What is Fading? Explain the types of fading how does fading effect
the wireless transmission? | 10 |
| | B. | What is the difference between Palm OS and symbian OS | 10 |
| 7. | | Write on ; | 20 |
| | 1. | Wi-Fi | |
| | 2. | Block Codes | |
| | 3. | WAP | |
| | 4. | TAPI | |
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- Note : (1) Question No. 1 is compulsory.
 (2) Answer any four from the remaining six questions.

1. Explain the following (Any four):- 20
 - (a) Issues in designing distributed operating systems.
 - (b) Failure handling in message passing.
 - (c) Desirable features of a good message passing system.
 - (d) DCE directory service.
 - (e) Advantages of DSM

2. A) Explain with the help of a diagram the implementation of RPC mechanism. 10
 B) Name different consistency models .How is the sequential consistency model implemented in DSM? 10

3. A) Discuss the various issues of load sharing approach used for better resource utilization. 10
 B) What are the desirable features of a good process migration mechanism 10

4. A) What are the cache validation schemes used in DFS? 10
 B) Discuss Sun's Network File System (NFS). 10

5. A) Name the various clock synchronization algorithms used in a distributed systems. Discuss any one. 10
 B) What are election algorithms? Explain bully algorithm in detail. 10

6. A) What are the desirable features of a good naming system? 10
 B) What is thrashing? What are its implications in a DSM? 10

7. Write short notes on any four of the following :- 20
 - (a) Chorus
 - (b) Distributed computing environment
 - (c) VMTP protocol
 - (d) Lightweight RPC
 - (e) Threads

WS March-2012 190
Con. 3657-12.

Sem-V M.C.A.
Sub: A-W-T.
(REVISED COURSE)
(3 Hours)

22/5/12
UK-5009
[Total Marks : 100

- N.B. :** (1) Question No. 1 is compulsory.
(2) Attempt any four questions from Q. Nos. 2 to 7.
(3) All questions carry equal marks.

1. (a) Explain the difference with examples : 10
 - (i) Servlets and JSP
 - (ii) J2EE and Dot NET.
 - (b) Explain the types of elements in JSP. 10
 2. (a) Explain in brief XML. 10
 - (b) Explain the Validation Controls in ASP.NET with examples. 10
 3. (a) Explain File Handling in C# with an example. 10
 - (b) What is Coding Model in ASP.NET Explain in brief Code Inline model. 10
 4. (a) Define FCL. Explain Architecture of .NET Framework in detail. 10
 - (b) Write a Programme in JSP to display Protocol, URL and Remote Address. 10
 5. (a) What is Cookie ? Write a simple servlet to design a page visit counter using Cookies. 10
 - (b) What are Servlets ? Explain Servlets Life Cycle in detail. 10
 6. (a) What is CLR ? 10
 - (b) What is ADO.NET ? Explain the steps to retrieve data from a SQL server database in C# using ADO.NET with an example. 10
 7. Write notes on :- 20
 - (a) HTTP Session
 - (b) Single Thread Model
 - (c) Web Services
 - (d) Web Search Engine.
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N.B: (1) Q.1 is compulsory.

(2) Answer any four questions from Q.2 to Q.7

(3) Figures to the right indicate marks.

(4) Assume any additional information but justify the same.

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| Q.1 | Write a short note on the following: | 20 |
| | (a) Orchestrations in SOA | |
| | (b) Business centric SOA | |
| | (c) Web service framework characteristics | |
| | (d) Message Exchange Patterns of web services | |
| Q.2 | (a) Explain the features of Contemporary SOA and describe how SOA has evolved over time. | 10 |
| | (b) Describe SO life Cycle and its components and give an account of Security specifications used in SOA | 10 |
| Q.3 | (a) What are SOAP and WSDL standards? Explain how messaging is performed using SOAP. | 10 |
| | (b) What are atomic transactions and explain their in the context of web services and SOA activity management. | 10 |
| Q.4 | (a) Write a note on: Orchestration and choreography performed in Web Services | 10 |
| | (b) Outline the features of SOA governance and explain the challenges faced in using SOA governance | 10 |
| Q.5 | (a) In the context of Web services, explain (i) Addressing (ii) Reliable messaging | 10 |
| | (b) By giving suitable illustrations explain the distributed Internet Architecture. | 10 |
| Q.6 | (a) Explain with suitable examples the concept of metadata exchange and describe the specifications of web service metadata exchange | 10 |
| | (b) By giving appropriate example explain what are common pitfalls for adoption of SOA? | 10 |
| Q.7 | (a) Describe three Service Layer Abstractions in SOA | 10 |
| | (b) Explain with a neat labeled diagram different components of SOA and their Functionalities. | 10 |
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- N.B. (1) Question 1 is compulsory
(2) Attempt any four from 2 to 7.

- Q.1 (a) Define SCM. State and explain the objectives of SCM by giving the suitable example. [10]
(b) Which are the various demand forecasting methods? Explain the static time series method in detail and a brief of each forecasting method? [10]
- Q.2. (a) State and explain different types of distribution networks. Discuss the strengths and weakness of each? [10]
(b) Explain JIT and VMI. [10]
- Q.3. (a) State the major drivers of supply chain performance. Discuss the role and impact of each driver in creating a strategic fit between the Supply chain strategy and the competitive strategy. [10]
(b) How could a grocery retailer use inventory cost driver to increase the responsiveness of its supply chain [10]
- Q4 (a) Describe the various stages in the supply chain and the different flows or cycles involved? [10]
(b) Consider the purchase of LG TV at Big Bazaar. Describe the various stages in the supply chain and the different flows or cycles involved? [10]
- Q5 (a) State and explain the factors influencing supply chain network design decision and explain each factor in brief? [10]
(b) State and explain different types of distribution networks. Discuss the strengths and weakness of each. [10]
- Q6 (a) Describe the three key Supply Chain decision phases and explain the significance of each one. [10]
(b) "Product packaging is the main selling driver in the FMCG industry." Comment with focus on the logistics aspect? [10]
- Q.7. Write short note on: [20]
(a) Benchmarking in Supply chain
(b) Network Optimization model
(c) Private Fleet Management
(d) Impact of e-business on distribution network

N.B. (1) question no:-1 is compulsory.

(2) Attempt any four questions from the remaining six questions.

- Q. 1 (a) what is compression what benefits are offered by compression schemes in designing multimedia system? 10Marks
(b) Explain entropy encoding in detail and its types with example. 10Marks
- Q. 2 (a) Explain multimedia authoring tools and its different types in details. 10Marks
(b) List and discuss the different stages of making multimedia project. 10Marks
- Q. 3 (a) Describe the capabilities and limitations of bitmap images and vector images. 10Marks
(b) Difference between MIDI and DIGITAL audio? 10Marks
- Q. 4 (a) Explain the role of Morphing and kinematics in multimedia. 10Marks
(b) Briefly explain four features of Digital Video. Also explain why it is increasingly used in current applications. Explain two differences in the functions of Digital Video and a CD-ROM. 10Marks
- Q. 5 (a) explain in detail various elements that are used to design in multimedia project. 10Marks
(b) Discuss importance consideration involved in delivering a project and its benefits in details. 10Marks
- Q. 6 (a) Explain in detail the use of Multimedia Presentation and Conferencing? 10Marks
(b) Discuss the important role of Planning and Costing in Multimedia? 10Marks
- Q. 7 write the short notes on any four 20Marks
- (1) Jpeg and mpeg
 - (2) Principles of animation.
 - (3) Display standards.
 - (4) Lossy and lossless compression.
 - (5) Image file formats.
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- N.B. (1) Question No.1 and Question No. 8 is compulsory
 (2) Answer any 4 of the remaining questions
 (3) Figures to the right indicate full marks

- Q.1. Case Study:
 Dr. Sameer Parekh had an appointment with Dr. Soniya Mehta at the Wockhardt Hospital, Mumbai. While waiting for Dr. Mehta, Sameer remembered that he had to email a document (that he was carrying in a pen drive) to his office. As he looked around, he realized that there was a computer at the reception desk, which was switched on. However, the receptionist was nowhere to be seen. Sameer immediately inserted the pen drive containing the document into the USB slot of the computer at the reception desk. Just then, the receptionist entered and saw Sameer at the computer. She immediately called the security guards and informed the manager about the incident. The manager wants to take legal action against Sameer for unauthorized access. Advise the manager. 10
- Q.2. (a) State and explain the important features of Electronic Contract? By giving appropriate example, enlist the different steps followed for setting up e-commerce website. 10
 (b) What is domain name dispute? Explain with an example. 10
- Q.3. (a) How infringement in Trademark occurs? What is a relief in infringement and passing of suits? 10
 (b) What are the current and future contract laws? 10
- Q.4. (a) What is Cyber Squatting? Explain with an example. 10
 (b) Define Tort Law. Explain the different categories a Tort can be classified into and the different damages covered under Tort Law. 10
- Q.5. (a) In the context of Contract Law 1872 as per section 2(a) explain: Rules regarding valid offer and valid acceptance. 10
 (b) Explain Various types of Cyber crime (any two) 10
- Q.6. (a) What are the rights of patentee? What are the exceptions to the right of Patentee? 10
 (b) Compare and contrast between: Provisional patents and Non – provisional patents, 10
- Q.7. (a) How computer programs are infringed and what is a punishment for infringement? 10
 (b) Write a note on : (i) Different defenses to a defamation suite (ii) Licensee and Licensor. 10
- Q.8. Write short Notes on: (Any Two) 10
 1. Contracting and licensing of software.
 2. E – signs
 3. Spam and Anti Spam Law
 4. Anti – cyber squatting consumer protection Act.