MCA (SEM - V)
Software Testing
(Paper – I)
MAY: - 2016

QP Code : 26634

(3 hours)

Total Marks: [100]

N.B.
- **Q1. is Compulsory.**
- **Solve any 4 questions from Q2. to Q7.**

Q1. (A) Describe the tools that can be used in designing test specifications? What are the criteria for selection and introduction of test tools? 10
(B) Describe different cost of Testing and Cost of defects? 10

Q2. (A) What are the roles and responsibilities of manager, moderator, author, reviewer and recorder? 10
(B) Why test cases are prioritized? Mention the criteria for prioritizing the test cases? 10

Q3. (A) What is mean by review? What are the positive effects of review? Explain different review process? Write the different work steps involved in the review process?
(B) Explain Equivalence classes and boundary value analysis with example? 10

Q4. (A) Compare statement coverage with branch coverage and path coverage? What is the equivalence class coverage if the total number of test cases using EC coverage is 20 and only 16 test cases are done? 10
(B) Explain the System testing in terms of Test object and Test Strategies. 10

Q5 (A) What is Incident Management? Explain Incident reporting and Incident Status model in detail? 10
(B) Explain Use case testing with example? 10

Q6 (A) Explain general principals of testing? 10
(B) What are Generic types of Testing? Explain Functional testing v/s non-functional testing? 10

Q7. Write Short notes on: **(any 4)** 20
- Agile Methodology
- Data Flow anomaly.
- V Model
- Gray Box Testing.
- OO testing.

DC-Con. 7221-16.

MCA (SEM - V)
Wireless Technology
(Paper – II) MAY: - 2016

QP Code : 26637

(3 Hours) [Total Marks :100]

Note:

a) Question No. 1 is compulsory
b) Attempt any four from the remaining
c) All questions carry equal marks
d) Answers to sub questions should be answered together
e) Illustrate answers with diagrams wherever necessary

Q1. (a) How spreading of the spectrum is advantageous in wireless transmission? Explain the technique of frequency hopping. **10**
(b) What are piconet and scatternet? Explain various protocols supported by bluetooth protocol architecture. **10**

Q2. (a) Explain the basic components of GSM architecture. What is the role of Mobile switching centre in roaming? **10**
(b) Describe WAP programming model in detail. **10**

Q3. (a) What is free space loss? How fading affect the wireless transmission. What are different types of fading ? **10**
(b) Describe features and architecture of Symbian OS. **10**

Q4. (a) Describe WIMAX network reference model along with its features. **10**
(b) Describe J2ME architecture with respect to various configurations and profiles. List various states of a midlet life cycle. **10**

Q5. (a) Explain 802.11 architecture in detail. **10**
(b) What are Convolution codes? Draw an encoder with value k=1,n=2, K=3.Give example of its usage. **10**

Q6. (a) Explain the use of WPA and WPA2 in implementing WiFi Security. **10**
(b)Explain various terms with respect to wireless transmission :
Antenna Gain, Fresnel Zone, Hand over, Frequency reuse **10**

Q7. Write short notes on: (Any Four) **20**
(a) TAPI
(b) Mobile IP
(c) 1G,2G,3G
(d) Antennas
(e) WCDMA

DC-Con. 7224-16.

MCA (SEM - V)
Distributed Computing
(Paper – III)
MAY: - 2016

QP Code : 26639

[100 Marks]

N.B. i) Question No. 1 is **Compulsory.**
ii) Attempt **any four** from question nos. 2 to 7.
iii) **Figures** to the **right** indicate marks.
iv) **Mixing** of sub questions is **not allowed.**

Q.1 (a) What is false sharing? Can it be eliminated? Give the pros & cons of using a large block size in designing DSM system. 10

(b) Discuss various address space transfer mechanisms for a process migration facility. 10

Q.2 (a) What is stub? How are stub generated? Explain how the use of stubs helps in making an RPC mechanism transparent. 10

(b) Explain the file caching schemes with key focus on cache location, modification propagation & cache validation. 10

Q.3 (a) What is logical clock in DS? A clock of a computer system must never run backward. Explain how this issue can be handled in an implementation of logical clocks concepts. 10

(b) What are the main differences between sequential consistency & release consistency? State their relative advantages. How can sequential consistency be implemented? 10

Q.4 (a) Enumerate the desirable features of a good message passing system. Also explain buffering mechanism used in IPC. 10

(b) Discuss the relative advantages and disadvantages of the various data locating mechanisms that may be used in distributed shared memory system that uses the Replicated Migrating Blocks (RMB) strategy. 10

Q.5 (a) What are election algorithms? Explain Bully algorithm. Is it more efficient than the Ring algorithm? 10

(b) What is callback RPC facility? Give an example of an application where this facility may be useful. 10

Q.6 (a) Differentiate between Monolithic kernel & Microkernel approaches for designing a Distributed Operating System. 10

(b) Explain the concept of Name Resolution with respect to DCE. 10

Q.7 Write short note on **any four** of the following: 20

(a) Lightweight RPC

(b) Stable Storage

(c) Load Balancing Approach

(d) Name Cache

(e) Multidatagram Message

MCA (SEM - V)
Advanced Web Technologies
(Paper – IV)
MAY: - 2016

Q.P. Code : 26642

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

N.B. : (1) Question **1** is **compulsory**.
(2) Attempt any **four** from questions **2** to **7**.
(3) **All** questions carry **equal** marks.
(4) Draw **diagrams** wherever necessary.

1. (a) Explain the difference with examples: **10**
   (i) Java and NET
   (ii) Send Redirect and Request Dispatcher
   (b) Design a user Registration form for online exam using ASP. Net. **10**

2. (a) Explain all implicit objects in JSP with example. **10**
   (b) Explain Servlet life cycle. **10**

3. (a) What is .NET framework? What is CLR? Explain the working of CLR. **10**
   (b) Write a menu driven program in C# to find the area of rectangle and the area of square. **10**

4. (a) Explain ASP. Net controls with suitable example. **10**
   (b) Write a JSP page to show Online result of MCA degree with database connectivity in which page will internally connect to the database table 'Result Record May 2016'. **10**

5. (a) What is session tracking? Explain how it is achieved in Servlets. **10**
   (b) Write a servlet program for the college to save railway concession record of all students in database. **10**

6. (a) What is Web Service? Explain UDDI, SOAP, and WSDL with respect to web services. **10**
   (b) Write an ASP. Net application for bank sector for the registration of customer with the validation control. **10**

7. Write the short notes on **any four** **20**
   (a) XSLT
   (b) File handling in C#
   (c) DTDs and XML
   (d) Post Back and Cross Page Posting
   (e) Cookie

MCA (SEM - V)
Elective – 2
Logistics & Supply Chain Management
(Paper – V) MAY: - 2016

QP Code : 26646

[Total Marks : 100

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

1. (a) Consider a customer walking into Home-Mart store to purchase a Washing Machine Detergent powder with a Double packing of Plastic Pouch inside a Cardboard box. Design a Supply chain from its origination till its final delivery for the above case. (10)
   (b) What are different Supply chain stages? Explain them in context to the above given case. (10)

2. (a) What role an inventory plays in the supply chain? Explain how Managers use inventory to drive supply chain performance in context to the responsiveness Versus efficiency trade-off. (10)
   (b) Explain various modes of transportation in a Supply chain. Explain how could a auto manufacturer use transportation to increase the efficiency of its supply chain? (10)

3. (a) Explain "Distribution Storage with Carrier Delivery" and "Manufacturer Storage with Direct shipping" distribution network designs in a supply chain. (10)
   (b) Explain the Impact of e- Business on Customer Service in a Grocery Industry in context to the supply chain. (10)

4. (a) How Demand forecasts form a basis for all the supply chain planning? Explain Six-Step Approaches for effective forecasting. (10)
   (b) Explain the concept of two distribution strategies, "Cross Docking" and "Pool Distribution" in detail. (10)

5. (a) Explain Vendor Managed Inventory in Detail with its diagrammatic model. (10)
   (b) Explain the concept of Just In Time manufacturing in context to Dell. (10)

6. (a) What are the several risks associated with the use of IT in supply chain? (10)
   (b) What are the general ideas need to be covered by Managers while implementing IT infrastructure for a supply chain? (10)

7. Write Short Notes on ***any four*** :- (20)
   (a) Benchmarking (b) Fleet Management
   (c) Role of IT in Inventory Management (d) Trends in Packaging
   (e) Role of Data Warehousing and Mining in SCM
