Total Marks: 100

(3 hours)

N.B
- **Q1. Is Compulsory.**
- **Solve any 4 questions from Q2. To Q7.**

Q.1 A) What is Incident Management? Explain Incident reporting and Incident Status Model   10
in detail.

B) Explain cost and Economy aspects of testing.   10

Q.2 A) Explain the difference between verification and validation? Explain how these   10
activities play role in V- model?

B) Why test cases are prioritized? Mention the criteria for prioritizing the test cases.   10

Q.3 A) Explain the Component testing in terms of Test object and Test Strategies.   10

B) What is mean by review? Explain different types of reviews?   10

Q.4 A) Explain the statement coverage and branch coverage with an example?   10

B) Compare black box testing and white box testing. Explain with the help of an   10
example.

Q.5 A) Explain the criteria for selecting the test tools?   10

B) What are Generic types of Testing? Explain Functional v/s non-functional testing   10

Q.6 A) Explain General principles of testing? What must be the psychology of testing?   10

B) Explain State transition testing with suitable example?   10

Q.7   Write Short notes on: (any 4)   20
    1. Testing V/s Debugging.
    2. Data Flow anomaly.
    3. Gray box testing.
    4. W model.
    5. OO Testing

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[3 hours]   [Marks: 80]

a) Question No. 1 is compulsory
b) Attempt **any four** from the remaining six questions
c) Assumptions should be made whenever required and should be clearly stated
d) Answers to sub questions should be answered together
e) Illustrate answers with diagrams wherever necessary
f) Use of Calculators is permitted

Q1 A Differentiate between   10
          i.   1G,2G and 3G technology
          ii.   FDMA,TDMA and CDMA

    B Discuss the various transmission impairments in wireless communications   10

Q2 A Describe Symbian OS features   10

    B Discuss the WiMAX architecture in detail   10

Q3 A What are Convolution codes? Draw and explain an encoder with value k=1,n=2, K=3.   10
       Explain with the help of example

    B Describe the WAE architecture and WAP protocol stack in brief   10

Q4 A What is handover? Explain the various strategies of mobile handover   10

    B Describe the GSM protocol architecture.   10

Q5 A What is spread spectrum technology? Explain the FHSS and DSSS techniques for   10
       spreading the spectrum.

    B Explain the life cycle of a midlet in J2ME. What are the profiles supported by CDLC   10
       configuration

Q6 A What are antennas? Explain the various types of antennas   10

    B What is Free Space Loss? Determine free space loss at 6 GHz signal for the shortest   10
       path to a geo synchronous satellite (65535 km apart).

Q7 A Write short notes on **any four** of the following   20
         i.   Fading
         ii.   WPA and WPA2
         iii.   Infrared LANs
         iv.   GPRS
         v.   TAPI

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(3 hours) [Total Marks: 100]

N.B.: 1) Question **1** is **compulsory**

2) Answer any **four** of the remaining **six** questions

3) **All** questions carry **equal** marks

Q1. A. Describe desirable features of a Good Message Passing System (10)

B. Explain RPC architecture in detail (10)

Q2. A. What are the desirable features of a good process migration mechanism? (10)

B. Explain various clock synchronization algorithms used in a distributed system (10)

Q3. A. Explain the load sharing approach in distributed systems (10)

B. Explain Mutual Exclusion algorithm along with importance of Critical section (10)

Q4. A. Explain group communication in message passing (10)

B. Discuss desirable features of Distributed File System (10)

Q5. A. Explain the architecture of Distributed Shared Memory (10)

B. What are the desirable features of a good naming system? (10)

Q6. A. Discuss Non Replicated Migrating Blocks (NRMB) strategy in distributed shared system (10)

B. Explain different distributed computing models (10)

Q7. Write short note on the following (**any four**) (20)

A. Election Algorithm

B. Thrashing

C. Light weight RPC

D. Consistency Model

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QP CODE: 40332

(3 Hours)   Total Marks: 100

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

1. (a) Explain .NET Framework with advantages and disadvantages of CLR.   (10)

    (b) Explain Inheritance and Polymorphism in C# with an example.   (10)

2. (a) Explain Serialization and Deserialization in C# with example.   (10)
    (b) What is Page Event? Explain the page life cycle of ASP.NET page with   (10)
         an example.

3. (a) What is a Web Service? Explain Web Service architecture.   (10)
    (b) How will you create custom validation control in ASP.NET? Explain   (10)
         with suitable example.

4. (a) What is Http Sessions? Design Servlet to count the number of times   (10)
         the page is visited using session.
    (b) Explain ASP.NET Page Directives.   (10)

5. (a) Explain DriveInfo, Directory, FileInfo classes with properties and   (10)
         Methods in C# with example.
    (b) What is DTD? Why to use DTD? Explain internal DTD and external   (10)
         DTD with an example.

6. (a) Explain Request Dispatching with suitable example.   (10)
    (b) Explain Search engines optimization and its limitations.   (10)

7. Write a short note **any 4**   (20)
        a) SOA
        b) Components of JSP
        c) Semantic Web
        d) Generics
        e) CTS

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