Sl. No.

B3.E5-R5 : SOFTWARE TESTING AND QUALITY ASSURANCE

NOTE :
1. **Answer question 1 and any FOUR questions from 2 to 7.**
2. **Parts of the same question should be answered together and in the same sequence.**

Total Time : 3 Hours   **Total Marks : 100**

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1. (a) Give difference between Top-down and Bottom-up approach.
(b) List and explain the process maturity levels in Capability Maturity Model (CMM).
(c) Write functional requirements of Hotel Management System.
(d) Distinguish between verification and validation.
(e) Explain Test Scenario and Test Case in Software testing.
(f) Give difference between Manual and Automation testing.
(g) Explain the following terms :
(i) Data Inspection   (ii) Data Redundancy   **(7x4)**

2. (a) List the different Agile process model and Explain any one with suitable example.
(b) What is Risk Management ? Explain Risk Mitigation, Monitoring, and Management (RMMM) plan.
(c) Explain the concept of test case with an example. How test cases are managed ?
                                                                                          (6+6+6)

3. (a) Elaborate the best Practices that should be followed for writing good Test Cases for fulfilling efficient and accurate software testing.
(b) Write short note on Quality management models.   **(10+8)**

4. (a) With the help of proper example explain cyclomatic complexity and flow graph notation.
(b) Explain Scrum with merits and demerits.
(c) Difference Between Test Plan And Test Strategy.   **(6+6+6)**

5. (a) What is a "version control system"? Why Version Control system is so Important ? Describe types of Version Control Systems in brief.
(b) Explain Function Testing. Write the steps to do functional testing.   **(10+8)**

6. (a) What is a Testing Pyramid ? Explain levels of Testing pyramid in detail.
(b) List and explain different types of testing done during testing phase.   **(10+8)**

7. (a) What is requirement verification ? Explain all the activities involved in it.
(b) Explain Requirement traceability matrix (RTM) in detail.   **(10+8)**

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