T.Y.B.Sc.(IT) (Sem-VI)   July-2023

Software Quality Assurance

Time: 2 ½ Hour   **[Marks:75]**

Please check if you have got the right question paper

N.B.:

1) All questions are compulsory
2) Make suitable assumptions wherever necessary and state the assumptions made
3) Answer to the same question must be written together
4) Numbers to the right indicate marks
5) Draw neat labelled diagram wherever necessary
6) Use of Non-Programmable calculator is allowed

1. **Attempt any three of the following:**   **[15]**
   a. Differentiate between tools and techniques.
   b. List and explain any five requirements of a product.
   c. Explain types of products based on criticality to the users?
   d. Explain the relationship between mission, policy, goal, objective, strategy and value of organization.
   e. Explain the relationship between mission, policy, goal, objective, strategy and value of organization.
   f. What is quality? Explain its core component

2. **Attempt any three of the following:**   **[15]**
   a. Differentiate between verification and validation.
   b. List and explain any two approaches of software testing team with its advantages and disadvantages.
   c. Define Testing and give reasons why testing is necessary.
   d. List the skills required by the tester.
   e. What is test strategy? Explain different stages involve in process of developing test strategy.
   f. Explain gray box testing with its advantages and disadvantages

3. **Attempt any three of the following:**   **[15]**
   a. Write a short note on DD path testing.
   b. Explain slice-based testing with an example.
   c. Explain the test case for the Triangle Problem using normal boundary value.
   d. Write short note on Data flow testing.
   e. Write a short note on Decision Tables.
   f. Explain Path testing with example.

34204   **Page 1 of 2**

4. **Attempt any three of the following:** [15]
   a. What is Verification? Write the methods of verification
   b. What are the roles and responsibilities in Inspection?
   c. Write short note on process of In-Process Review.
   d. What are the software development verification and validation activities?
   e. What are the levels of validation?
   f. What comprises of audit report?

5. **Attempt any three of the following:** [15]
   a. Differentiate between debugging and testing.
   b. Explain complexity testing.
   c. What are major concerns in multiplatform testing? Write types of compatibility.
   d. Write note on security testing.
   e. What are the risks associated with new technologies?
   f. Write the testing approach of web application.

_____