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Total No. of Pages : 02

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**B.Tech. (CSE/Information Technology)    (Sem.–7)**
# SOFTWARE TESTING AND QUALITY ASSURANCE
**Subject Code : BTCS-905**
**M.Code : 71897**
**Date of Examination 18-07-22**

Time : 3 Hrs.                                                      Max. Marks : 60

**INSTRUCTIONS TO CANDIDATES :**
1. **SECTION-A is COMPULSORY consisting of TEN questions carrying TWO marks each.**
2. **SECTION-B contains FIVE questions carrying FIVE marks each and students have to attempt any FOUR questions.**
3. **SECTION-C contains THREE questions carrying TEN marks each and students have to attempt any TWO questions.**

## SECTION-A

1.  **Write briefly :**

    a.  What advanced process models have been proposed for software engineering work?

    b.  Define Version Control.

    c.  Write a short note on TQM.

    d.  What is Baseline?

    e.  Distinguish software faults and software failures.

    f.  Differentiate between verification and validation.

    g.  What is scaffolding in testing?

    h.  Why do we need integration testing?

    i.  Distinguish between alpha and beta testing.

    j.  What is defect severity?

## SECTION-B

2. Explain various black -box techniques used to design effective test cases.

3. Differentiate between the following :

   a) Equivalence partitioning and Boundary value analysis methods

   b) Verification and Validation

   c) White-Box and Black-Box Testing.

4. What is object oriented testing? Explain the various objects oriented testing strategies and issues in detail.

5. Explain product quality metrics.

6. Why do we need integration testing? Explain various approaches in integration testing.

## SECTION-C

7. Write a short note on 'software quality assurance standards'.

8. Explain the following :

   a. Alpha and beta testing

   b. Fault based testing

   c. Software reliability.

9. Write short notes on the following :

   a) CMM

   b) Formal Technical Reviews

   c) BVA

   d) ISO 9126.

**NOTE : Disclosure of Identity by writing Mobile No. or Making of passing request on any page of Answer Sheet will lead to UMC against the Student**.