

Roll No.

Total No. of Questions : 09

Total No. of Pages : 02

B.Tech. (IT) (Sem.-7)  
**SOFTWARE TESTING AND QUALITY ASSURANCE**

Subject Code : BTIT 701/18

M.Code : 90569

Date of Examination : 27-04-2024

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 is Process Verification and Validation?
- b) Differentiate between Metric and Measure.
- c) What is model based testing?
- d) What are CASE tools?
- e) What is Object Oriented Methodology?
- f) Define TQM.
- g) What is the importance of integration testing?
- h) What is Taguchi Quality Loss function?
- i) What is user acceptance testing?
- j) Define PSP.

## SECTION-B

2. What is the need of Testing? Enlist its various types. Discuss with suitable examples. .
3. Write short notes on :
  - a) Defect Injection and Prevention
  - b) Effects of CASE tools on software quality.
4. Explain cause-effect graphing. Write down the steps used for the generation of tests using cause effect graphing.
5. What are the various levels of CMM? Explain in detail the role of KPAs in each level.
6. Explain different types of automated testing. Define various types of tests that fall under the umbrella of different types of automated testing.

## SECTION-C

7. Describe the following :
  - a) ISO 9000 series.
  - b) CMMI.
8. Explain different classification of techniques for testing computer software. Name the techniques and provide suitable examples.
9. Describe the different levels of testing that need to be performed for object oriented programs.

**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.**