



DCT-003-2043001

Seat No. _____

B. Sc. (I.T.) (Sem. III) (CBCS) (W.E.F. 2019) Examination

August - 2022

Software Quality Assurance & Testing : CS-13

Faculty Code : 003

Subject Code : 2043001

Time : $2\frac{1}{2}$ Hours]

[Total Marks : 70

Instruction : Attempt any **five** questions.

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|----------|-----|---|----------|
| 1 | (a) | (1) Write number of steps in system development life cycle. | 1 |
| | | (2) Write any one fact finding technique. | 1 |
| | | (3) Which pictorial tool is used to analyze and draw conditions to make it efficient? | 1 |
| | | (4) Arrow in Bubble chart indicates. | 1 |
| | (b) | Write role of system analyst. | 2 |
| | (c) | Draw decision table for only one condition $a > b$. | 3 |
| | (d) | Draw the diagram of System Development life cycle and explain first two phase. | 5 |
| 2 | (a) | (1) What is meta data? | 1 |
| | | (2) Bed Rock software Engineering layered approach is _____ | 1 |
| | | (3) Matured Software Engineering with Quality Control implies Quality. | 1 |
| | | (4) Circle is used to denote _____ in Data Flow Diagram. | 1 |
| | (b) | Write roles of Programmer analyst. | 2 |
| | (c) | Draw a decision tree to find greatest among three values. | 3 |
| | (d) | Draw the diagram of System Development life cycle and explain last phase. | 5 |

- 3 (a) (1) [I, S, O] is called test case. I stands for _____. 1
 (2) Error becomes defect if it is reported by _____ after delivery. 1
 (3) Static testing avoid _____ of program. 1
 (4) One of the System testing type is alpha. 1
 What is another type?
- (b) Explain fault, failure. 2
 (c) Explain Static Testing. 3
 (d) Explain white box testing. 5
- 4 (a) (1) Black Box and White Box are types of _____ testing. 1
 (2) Top down and bottom up are types of _____ testing. 1
 (3) Stress and Load testing are called _____ testing. 1
 (4) Collection of all test cases is called _____. 1
- (b) Explain debugging and testing. 2
 (c) Explain functional testing. 3
 (d) Explain black box testing. 5
- 5 (a) (1) information Engineering is the combination of _____ in water fall model. 1
 (2) V model emphasis on verification & _____. 1
 (3) Customer feedback is the last phase in the _____ model. 1
 (4) Small working model of software is called _____. 1
- (b) Explain prototype model. 2
 (c) Explain freeware and open source. 3
 (d) Explain spiral model. 5
- 6 (a) (1) QTP stands for _____. 1
 (2) Win Runner is _____ testing tool. 1
 (3) Load Runner is _____ testing tool. 1
 (4) Recording or Writing Test script comes under _____. 1
- (b) Explain big bang model. 2
 (c) What is test script? 3
 (d) Explain linear sequential model. 5

- 7 (a) (1) Planning, Monitoring and _____ collectively called Management. 1
- (2) Project Effort is calculated in number of people per _____. 1
- (3) FP stands for _____. 1
- (4) PERT stands for _____. 1
- (b) What is the importance of slack time in PERT Chart? 2
- (c) Discuss Error / KLOC and Defect / KLOC. 3
- (d) Explain concept of Project Management. 5
- 8 (a) (1) Another name of Timeline chart is _____. 1
- (2) Project cost depends of estimated _____ of Project. 1
- (3) Error per KLOC is _____ oriented metric. 1
- (4) LOC based metrics are size oriented. Function oriented metrics uses functions and _____. 1
- (b) What is the role of past projects in project cost estimation? 2
- (C) Discuss how complexity included in Function Point? 3
- (D) Explain Timeline Chart. 5
- 9 (a) (1) Microsoft software for computer aided designing is Ms _____. 1
- (2) Microsoft software for computer aided management is Ms _____. 1
- (3) Which modeling language is most suited for object oriented programming? 1
- (4) Branch corresponds to _____ in Activity diagram. 1
- (b) Explain one to many relationship in class diagram with example. 2
- (c) Draw Use Case Diagram for Point of Sale of a Gift shop. 3
- (d) Explain symbols of Activity Diagram. 5

- 10** (a) (1) UML stands for _____. **1**
- (2) "Aggregation", "is part of (Assembly)" and _____ are relationship in class diagram. **1**
- (3) Actor and _____ in _____ are symbols in use case diagram. **1**
- (4) Fork corresponds to _____ in Activity Diagram. **1**
- (b) Explain symbols of use case diagram. **2**
- (c) Explain Inheritance in Class Diagram with example. **3**
- (d) Explain Activity Diagram with example. **5**
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