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Shree Damodar College of Commerce & Economics, Margao-Goa
SY B.Voc.(ST), Semester-IV, Supplementary Examination August 2022
STG 402 Software Engineering & Testing

Duration: 2 hours**Max Marks: 60**

Instructions: 1) *Figures to the right indicate Full Marks.*
 2) *All Questions are compulsory, however there are internal choices.*
 3) *Draw diagrams wherever necessary.*

Q1. Answer any 5 of the following.**5 x 2 = 10**

- a. What is a Critical Path?
- b. List any 2 responsibilities of a Software Project Manager.
- c. What is a Gantt Chart?
- d. Differentiate between <<include>> and <<extend>> stereotypes in UseCase.
- e. What is an Activity Diagram?
- f. List any 2 metrics used to measure testability of software.
- g. Give 2 points of comparison between Static and Dynamic Testing.

Q2. Answer any 5 of the following.**5 x 2 = 10**

- a. Draw the notation for a Class with signature in UML Class Diagram.
- b. State any 2 advantages of Sequence Diagram.
- c. What is Cyclomatic Complexity?
- d. Differentiate between White Box testing and Black Box testing (any 2 points).
- e. List the types of Software Metrics.
- f. State the 5 levels of Capability Maturity Model.
- g. What is Software Quality Assurance?

Q3. Answer the following.**10**

- A. Describe any 5 characteristics of a good software. **(5)**
- B. State any 5 points of difference between Waterfall and Agile. **(5)**

OR

- C. Describe the Spiral Model of SDLC. **(5)**

Q4. Answer the following.**10**

- A. What is the importance of Project Scheduling? **(5)**
- B. Explain the concept of Cohesion. **(5)**

OR

- C. Describe the symbols used in a Structure Chart. **(5)**

10

Q5. Answer the following.

- A. What is a State Diagram and why is it used?(5)
- B. Draw a Level 0 and Level 1 DFD for Food Ordering System.
* Clearly write the assumptions made.

(5)

OR

- C. Draw a Use-Case Diagram for Money withdrawal from ATM machine.

(5)

Q6. Answer the following.

10

- A. Explain the Condition Testing Method of Testing.
- B. Discuss the Boundary Value Analysis testing method.

(5)

(5)

OR

- C. What is Mutation Testing? List any 2 advantages of the same.

(5)

=====ALL THE BEST=====