Vidya Vikas Mandal's
Shree Damodar College of Commerce & Economics, Margao-Goa
SY B.Voc.(ST), Semester-IV, Semester End Examination, June 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 WBS?
b. Differentiate between Gantt and Pert charts.
c. State the 5 levels of Capability Maturity Model.
d. What is a Class Diagram?
e. List any 2 objectives of testing.
f. What is a Graph Metrics?
g. What is Modularization?

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

a. List the symbols used to denote the State, Start State, End State and decision in State Diagrams.
b. What is the use of Fork/Join in Activity Diagram?
c. What is the use of Cyclomatic Complexity calculation?
d. What is Black-Box testing?
e. Compare and contrast Validation and Verification (2 points).
f. What is the meaning of the term Milestone with respect to Project Management?
g. State any 2 benefits of Software Quality Assurance.

Q3. Answer the following.   **10**

A. Describe Agile Model of Software Engineering.   **(5)**
B. Explain the Prototype Model? State any 2 advantages.   **(5)**

OR

C. Describe the Requirements Elicitation Process.   **(5)**

Q4. Answer the following.   **10**

A. Explain the need for Software Project Management.   **(5)**
B. Explain the concept of Coupling.   **(5)**

OR

C. Describe the components used in Data Flow Diagram.   **(5)**

Q5. Answer the following. 10

A. What is a Sequence Diagram and why is it used?**(5)**

B. Draw a Level 0 and Level 1 DFD for Library Information System.
   * Clearly write the assumptions made. (5)

OR

C. Draw a Use-Case Diagram for Online Food ordering system. (5)

Q6. Answer the following. 10

A. Explain the Loop Testing Method of Testing. (5)

B. Illustrate the Equivalence Partitioning testing method. (5)

OR

C. Describe the types in Mutation Testing. (5)

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