

Vidya Vikas Mandal's  
Shree Damodar College of Commerce & Economics, Margao-Goa  
SYB.Voc.(ST), Semester-IV, Supplementary Examination June 2023  
STG 402 Software Engineering & Testing (Truncated Syllabus 2021-2022)

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**

- i. State the use of software engineering.
- ii. List the steps in Software Development Life Cycle.
- iii. List the 4 P's of software project management.
- iv. Define the term "Milestone" in Software Project Management.
- v. Define the term 'Coupling'.
- vi. List the symbols used in Data Flow Diagram.
- vii. Define the term 'Aggregation' with respect to Class diagrams.

**Q2. Answer any 5 of the following.**

**5 x 2 = 10**

- i. Define White-Box testing.
- ii. State any 2 advantages of software metrics.
- iii. Define Unit Testing.
- iv. What is Mutation Testing?
- v. Define the term Software Quality Assurance.
- vi. State one advantage and one disadvantage of the waterfall model.
- vii. What is Six Sigma in software engineering?

**Q3. Answer the following.**

**2 x 5 = 10**

- A. Explain the Incremental Model of software development.  
OR  
B. Explain the Prototype Model of software development.  
C. Draw an Use-Case Diagram to model the Movie Ticket Booking. State all assumption clearly.

**Q4. Answer the following.**

**2 x 5 = 10**

- A. Explain the process of Project Scheduling.  
OR  
B. What is a Gantt Chart? State any 2 advantages of using a Gantt Chart.  
C. Explain Activity diagram with an example.

**Q5. Answer the following.**

**2 x 5 = 10**

- A. What is Cyclomatic complexity and why is it used?  
OR  
B. Discuss Loop Testing.

C. Explain the term Modularization?

**Q6. Answer the following.**

**2 x 5 = 10**

A. Explain the Equivalence Partitioning testing method.

OR

B. Discuss any 5 testing principles.

C. Explain the Cause-Effect Graph technique for software testing.

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