

PE-277
(562) M. Sc. COMPUTER SCIENCE (SECOND SEMESTER) Examination
JUNE 2022
Compulsory/Optional
Group-
Paper- IV

Name/Title of the paper – SOFTWARE ENGINEERING

Time: Three Hours

Maximum Marks-080

Minimum passing Marks-...

Note: Answer From Both the section as directed. The figures in the right hand margin indicate marks.

Section A

1 Answer the objective type question.

10X1

- i. What is Software Engineering?
 - a. Designing a software
 - b. testing a software
 - c. Application of engineering principles to the design a software
 - d. None of the above
- ii. _____ is a software development activity that is not a part of software processes.
 - a. Validation
 - b. Specification
 - c. Development
 - d. Dependence
- iii. What is a Functional Requirement?
 - a. Specifies the tasks the program must complete
 - b. Specifies the tasks the program should not complete
 - c. Specifies the tasks the program must not work
 - d. All of the mentioned
- iv. Attributes of good software is _____
 - a. Development
 - b. Maintainability & functionality
 - c. Functionality
 - d. Maintainability
- v. Who proposed the spiral model?
 - a. Barry Boehm
 - b. Pressman
 - c. Royce
 - d. IBM
- vi. _____ suits the Manifesto for Agile Software Development.
 - a. Customer collaboration

- b. Individuals and interactions
 - c. Working software
 - d. All of the mentioned
- vii. _____ is not suitable for accommodating any change?
 - a. RAD Model
 - b. Waterfall Model
 - c. Build & Fix Model
 - d. Prototyping Model
- viii. _____ is the definition of objects in the database that leads directly to a standard approach for the creation of software documentation.
 - a. Data/data integration
 - b. Information sharing
 - c. Document standardization
 - d. Data integrity
- ix. _____ specification is also known as SRS document.
 - a. white-box
 - b. grey-box
 - c. black-box
 - d. none of the mentioned
- x. Software Debugging is known as _____
 - a. identifying the task to be computerized
 - b. creating program code
 - c. creating the algorithm
 - d. finding and correcting errors in the program code

2 Answer the short type question.

5X2

- a. What do you mean by software requirement document?
- b. What is feasibility study?
- c. Define testing in context of software development.
- d. Explain data corruption.
- e. What do you understand by software reengineering?

Section B

Answer the Long type question.

12X5

UNIT-I

3 Define SDLC and explain the role of requirement analysis and their types in software development.

OR

Explain the following.

- a. Water fall model
- b. Evolutionary process model

UNIT-II

4 Describe the fundamental issues, coupling and cohesions in software engineering.

OR

What do you mean by system model? Explain different model used in software development.

UNIT-III

5 Compare black box testing and white box testing with suitable example.

OR

Explain the following

- a. Software quality
- b. Metrics of analysis and design model

UNIT-IV

6 explain different preparation of testing in test plan and maintenance.

OR

Write notes on

- a. Client-server software development
- b. Simulation and prototyping

UNIT-V

7 Explain the following.

- a. Seven core metrics
- b. Model based software architecture

OR

Write notes on

- a. Major and minor milestones
- b. Life cycle phases and process artifacts