(NO. OF PAGES: 2)

(FOR THE CANDIDATES ADMITTED DURING THE ACADEMIC YEAR 2022 ONLY) SUB CODE 22UIT4A4 REG.NO. :

N.G.M. COLLEGE (AUTONOMOUS) : POLLACHI

END-OF-SEMESTER EXAMINATIONS: MAY 2024

B.Sc IT **MAXIMUM MARKS: 50**

SEMESTER : IV **TIME : 3 HOURS**

PART - III

SOFTWARE ENGINEERING

SECTION – A (10 X 1 = 10 MARKS)

ANSWER THE FOLLOWING QUESTIONS.(K1)

1. The prototyping model of software development is ____
   a. A reasonable approach when requirements are well defined.
   b. A useful approach when a customer cannot define requirements clearly.
   c. The best approach to use for projects with large development teams.
   d. A risky model that rarely produces a meaningful product.
2. The UML _____ is a variation of the activity diagram and allows to represent the flow of activities described by the use case
   a. Swimlane diagram b. Data Flow Diagram
   c. System Flow Diagram d. Flow Chart Diagram
3. Find the golden rule for interface design ____
   a. Place the user in control
   b. Reduce the user's memory load
   c. Make the interface consistent
   d. All of the mentioned
4. _____ is defined in statistical terms as "the probability of failure-free operation of a computer program in a specified environment for a specified time"
   a. Software Reliability b. Software Assurance
   c. Software Quality d. Software Failure Rate
5. _____ is called glass-box testing or structural testing, uses the control structure as part of component-level design to derive test cases.
   a. Block Box Testing b. Component Testing
   c. White-Box Testing d. Violet Box Testing

ANSWER THE FOLLOWING IN ONE (OR) TWO SENTENCES (K2)

6. Define Software Engineering
7. Write a note on UML Models
8. What is Software Design in Software Engineering?
9. Define Software Quality
10. Write a note on Black-box testing

SECTION – B (5 X 3 = 15 MARKS)

ANSWER EITHER (a) OR (b) IN EACH OF THE FOLLOWING QUESTIONS.(K3)

11. a) Describe the three types of Software Development Myths

(OR)

b) Explain the Waterfall Model in Software Process Models.

12. a) Elaborate the Scenario-Based Modeling in Software Engineering.

(OR)

b) Enumerate about Requirements Modeling for Web and Mobile Apps

13. a) Explain about The Design Model

(OR)

b) List the Golden Rules of User Interface Design and Explain

14. a) List the activities performed to achieve Software Quality and Explain.

(OR)

b) Enumerate about Software Reliability in SQA

15. a) Describe about Validation Testing

(OR)

b) Describe in detail Software Testing Fundamentals

SECTION – C (5 X 5 = 25 MARKS)

ANSWER EITHER (a) OR (b) IN EACH OF THE FOLLOWING QUESTIONS.(K4/ /K5)

16. a) Explain in detail the SOFTWARE PROCESS and its Frame work

(OR)

b) Discuss about the Agile Development in Software Engineering

17. a) Discuss in detail the Requirement Analysis in Software Engineering

(OR)

b) Summarise the Class-based modeling methods for Requirements analysis

18. a) Interpret the Design Concepts of Software Engineering and Explain

(OR)

b) Illustrate about User Interface Analysis and design

19. a) Illustrate in detail The Software Quality Dilemma

(OR)

b) Discuss in detail Software Quality Assurance (SQA) Tasks, Goals, and Metrics

20. a) Give short note on

i) Unit Testing - 2 Marks ii) Integration Testing - 3 Marks

(OR)

b) Elaborate about the various tests involved in Black-Box Testing