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1705E703

Candidate's Seat No : \_\_\_\_\_

IMSc IT (SD-WM) (NEP) Sem.-4 Examination

DSC-C-SMD-243T

Software Engineering

Time : 2-00 Hours]

May-2025

[Max. Marks : 50

**Instructions:**

1. Attempt all questions.
2. Make suitable assumptions wherever necessary.
3. Do not write anything on the question paper.

		Marks
Q.1	Compare and contrast the Spiral and Prototype models.	07
Q.2	Explain the Putnam Resource Allocation Model with its application in project planning.	07
OR		
Q.2	Describe the differences between cohesion and coupling with examples.	07
Q.3	What are black box and white box testing? Highlight their differences.	07
OR		
Q.3	Illustrate the concept of Software Requirement Specification (SRS) using an example. Also, explain behavioral and non-behavioral requirements.	07
Q.4	Explain the Software Crisis. How do life cycle models address this crisis?	07
OR		
Q.4	Describe the COCOMO model and explain its types with formulas.	07
Q.5	Define software engineering. How is it different from programming?	07
Q.6	Which of the following is a type of White Box Testing? a) Boundary Value Analysis b) Equivalence Partitioning c) Path Testing d) System Testing	01
Q.7	Black Box Testing is concerned with: a) Internal logic of the code b) Code coverage c) Expected output for given inputs d) Memory leaks	01
Q.8	Which of the following is NOT a type of software maintenance? a) Corrective b) Adaptive c) Preventive d) Reactive	01
Q.9	Which type of testing is focused on the internal structure of the code? a) Black Box Testing b) Validation Testing c) White Box Testing d) Acceptance Testing	01

(27.5)

Q.10	System Testing is performed to: a) Test individual units                      b) Check database security c) Evaluate the complete system's compliance with requirements d) Test memory consumption	01
Q.11	Which of the following is a software cost estimation model? a) COCOMO                                      b) ISO c) UML    d) DFD	01
Q.12	The main goal of software maintenance is to: a) Increase software size                      b) Modify and update software after delivery c) Add bugs for testing                        d) Remove system requirements	01
Q.13	In SQA, FTR stands for: a) Formal Testing Report                      b) Formal Technical Review c) Functional Test Record                      d) Final Testing Run	01
Q.14	DFD stands for: a) Design Flow Diagram                      b) Data Flow Diagram c) Dynamic Flow Design                      d) Direct Function Diagram	01
Q.15	Which of the following is not a UML diagram? a) Class Diagram                                b) Data Flow Diagram c) Activity Diagram                              d) Use Case Diagram	01
Q.16	Which model uses risk analysis at every phase? a) Waterfall model                              b) Prototype model c) Spiral model                                  d) V-Model	01
Q.17	The main aim of software maintenance is to: a) Add bugs to software                      b) Keep software updated c) Reduce features                                d) Delete documentation	01
Q.18	The process of identifying, isolating, and fixing bugs is known as: a) Testing    b) Debugging c) Validation                                        d) Verification	01
Q.19	LOC in software engineering stands for: a) Level of Code                                  b) Lines of Code c) Line of Communication                      d) Logic of Code	01
Q.20	Which model is also known as the classic life cycle model? a) Prototype model                              b) Waterfall model c) Spiral model                                      d) V-Model	01