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Candidate's Seat No:____

IMSc IT DNVI Sem.-3 Examination

DMVIBSC 16

Software Development Life Cycle

December-2025

Time : 2.30 Hours] **[Max.Marks : 70**

Instructions:
1. **Attempt all questions.**
2. **Make suitable assumptions wherever necessary.**
3. **Figures to the right indicate full marks.**

		MARKS
Q1.	1. A software fault is caused by _____. a) Hardware failure b) Wrong step or data definition in program c) Incorrect documentation d) Missing license 2. Which type of testing checks internal structure and design? a) Black-box testing b) White-box testing c) System testing d) Acceptance testing 3. Which testing is performed after integration testing? a) Unit Testing b) Regression Testing c) System Testing d) Module Testing 4. Quality Assurance focuses mainly on _____. a) Preventive activities b) Error correction only c) Documentation d) Debugging 5. The first step in requirement analysis is _____. a) Prototyping b) Context diagram c) Coding d) Testing 6. Which of these is NOT a component of DFD? a) Process b) Data Store c) Loop d) Entity 7. Functional requirements specify _____. a) How the system should perform b) What the system should do	**20**

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c) Hardware dependencies d) Legal constraints

8. Non-functional requirements focus on _____.
a) User inputs b) System functionality
c) Performance and usability d) Internal algorithms

9. Technical feasibility checks for _____.
a) financial gain
b) Hardware/software resources
c) Legal compliance d) Market acceptance

10. The process of identifying and evaluating problems in software development is called _____.
a) Risk analysis b) Debugging
c) Verification d) Review

11. The main goal of code review is to _____.
a) Increase project cost b) Check syntax errors only
c) Improve code quality and maintainability
d) Reduce team communication

12. Code efficiency primarily focuses on _____.
a) More lines of code
b) High CPU and memory usage
c) Low resource consumption and fast execution
d) Complex logic

13. Verification is also known as _____.
a) Dynamic Testing b) Static Testing
c) Regression Testing d) Black-box Testing

14. Validation ensures that we are _____.
a) Building the product right b) Building the right product
c) Not testing enough d) Documenting errors

15. The term "Software Crisis" was first introduced at the _____
a) IEEE Conference 1975 b) ACM Symposium 1965
c) NATO Software Engineering Conference 1968
d) ISO Software Standard Meeting 1970

16. In the Waterfall model, each phase is considered _____.
a) Flexible b) Frozen
c) Iterative d) Optional

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	17. Which model is best suited for high-risk, large projects? a) Spiral Model b) Waterfall Model c) Prototype Model d) V-Model 18. The foundation of software engineering is the ____ layer. a) Tools b) Methods c) Process d) Technology 19. Which of the following is NOT a characteristic of a good SRS? a) Completeness b) Consistency c) Ambiguity d) Correctness 20. The term "Black-box view" in SRS refers to _____. a) How the system works internally b) What the system should do externally c) Detailed algorithms d) Design constraints	
Q2(a)	Discuss the process and importance of code review in software development.	**10**
	OR	
Q2(b)	What is the importance of the Software Development Life Cycle (SDLC) in software engineering?	**10**
Q3(a)	Differentiate between functional and non-functional requirements with examples.	**10**
	OR	
Q3(b)	What are software myths? Discuss any two management myths.	**10**
Q4(a)	Explain the importance of software engineering in solving the software crisis.	**10**
	OR	
Q4(b)	What are the main steps involved in requirement analysis?	**10**
Q5.	Describe the components and levels of a Data Flow Diagram (DFD).	**10**
Q6.	Define Software Requirement Specification (SRS) and list its key characteristics.	**10**

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