[106]

SARDAR PATELUNIVERSITY
B.Sc.(IT) EXAMINATION,
5th SEMESTER
29th December Tuesday, 2020
2:00 p.m. to 4:00 p.m.
US05CINT24 [Software Engineering]

Maximum Marks: 70

Q-1   Multiple Choice Question.[Each Question carries one Mark]   [10]

1) _____ is the simplest and most widely used software development model.

A. Spiral   C. Iterative enhancement

B. Prototype   D. Waterfall

2) _____ requires major efforts.

A. Testing   C. Coding

B. Maintenance   D. Design

3) Which phase is required to understand the problem?

A. System Design   C. Requirement Analysis

B. Coding   D. Testing

4) An SRS establishes the basis for agreement between the _____ and the _____.

A. User & Product   C. Product & Quality

B. Client & Supplier   D. Developers & Project

5) _____ characteristic of SRS means the entire requirement denotes one interpretation.

A. Complete   C. Unambiguous

B. Reliability   D. Traceable

6) _____ is the formal language used to specify the requirements.

A. English   C. Structured English

B. UDF   D. Expressions

7) PDL stands for _____.

A. Process Define Language   C. Procedure Design Language

B. Prefer Define Language   D. Process Design Language

8) Structured design methodology tries to reduce _____

A. Cost   C. Cohesion

B. Time   D. Coupling

9) A failure is produced only when there is a _____ in the system.

A. error   C. fault

B. bug   D. problem

10) The information hiding principle in modern programming languages by _____.

A. data-hiding   C. data-abstraction

B. encapsulation   D. inheritance

[1]

(P.T.O.)

Q-2   Fill in the Blanks and True/False.   [8]

1.   _____ model provides better risk management and cost of each phase.
2.   The coding should follow rules of structured programming. (True/False)
3.   A high quality SRS reduces the development _____.
4.   COCOMO stands for Calculated Code Model. (True/False)
5.   _____ is the key term used in design of a system.
6.   Number of subordinates associated with given module is known as Fan-in. (True/False)
7.   In structured design methodology, the hierarchy of modules is represented by the

        _____.
8.   In programming style, nesting means if-then-else. (True/False)

Q-2   Give Answers for the following:(Any ten)   [20]
1.   Define Software and Software Engineering.
2.   Write a short note on maintenance phase.
3.   What are the limitations of Waterfall model?
4.   "A high quality SRS is prerequisite to high quality software." Justify.
5.   Explain Partitioning.
6.   List down at least 8 variables of COCOMO model.
7.   List the levels of Cohesion.
8.   Differentiate between Top-down and Bottom-up approaches.
9.   Explain in brief Design walkthrough.
10.   What do you mean by information hiding?
11.   Define Error, fault, failure (any two).
12.   Draw the diagram of levels of testing.

Q -4   Give Answer for the following Questions. (Attempt any Four)   [32]
1.   List characteristics of software process and explain any three in detail.
2.   Explain waterfall model.
3.   Explain COCOMO Model.
4.   What is SRS? Explain characteristics of SRS in detail.
5.   Discuss the basic principles of design (Design Principles) in detail.
6.   What is system design? Explain in detail how coupling is used.
7.   List all the rules to write the code in coding phase and explain any three of them
        (Programming Style).
8.   What is testing? Explain levels of testing using diagram.

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[2]