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Seat No : _____

No. of Printed Pages: 02

SARDAR PATEL UNIVERSITY
BCA Semester-5 Examination - 2022
US05CBCA23 || SOFTWARE ENGINEERING

Date : 11-11-2022, Friday
Time : 10.00 a.m. – 01.00 p.m.

Total : 70 Marks

Q-1 Select the appropriate option for the following questions: 10

- 1) The coding should follow rules of _____.
A. Structured Programming C. Integrated Programming
B. UML D. OOP
- 2) _____ model provides better risk management and cost of each phase.
A. Spiral C. Iterative enhancement
B. Prototype D. Waterfall
- 3) _____ activity is used to understand the needs, goals and constraints.
A. Testing C. Design
B. Requirement Specification D. Problem Analysis
- 4) COCOMO stands for:
A. Construction Cost Model C. Constructive Code Model
B. Constructive Cost Model D. Calculated Cost Model
- 5) Number of subordinates associated with given module is known as _____.
A. Fan-out C. Dependency
B. Fan-in D. Module
- 6) Which is not the level of Cohesion?
A. Logical C. Sequential
B. Physical D. Coincidental
- 7) In programming style, nesting means _____.
A. switch C. nested function
B. if-then-else D. nested for loop
- 8) The information hiding principle in modern programming languages by _____.
A. data-hiding C. data-abstraction
B. encapsulation D. inheritance
- 9) _____ is the collection of computer programs, procedures and data.
A. Hardware C. Network
B. Software D. Engineering
- 10) _____ characteristic of SRS means the entire requirement denotes one interpretation.
A. Complete C. Unambiguous
B. Reliability D. Traceable

Q-2 Give short answers of the following questions: (Attempt TEN out of TWELVE) 20

- 1) Define: Software and Software Engineering.
- 2) Explain advantages of spiral model.
- 3) Write a short note on requirement analysis phase.
- 4) Write a short note on Time sheets.
- 5) "A high quality SRS reduces development cost." Justify.

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Seat No : _____

No. of Printed Pages: _____

- 6) List components of SRS.
- 7) Differentiate between Functional and Object-oriented approaches
- 8) Explain in brief Design walkthrough.
- 9) Define: Coupling and Cohesion.
- 10) Write at least 2 differences between functional and structural testing.
- 11) Define Error, fault, failure (any two).
- 12) List any four automated testing tools.

- Q-3 A Explain characteristics of software process. 04
B Explain Waterfall model. 06

OR

- Q-3 A Explain prototype model. 04
B Explain design and coding phases of software development. 06

- Q-4 A What is SRS? Explain needs of SRS. 04
B What you mean by SRS? Explain Components of SRS. 06

OR

- Q-4 A Explain general characteristics of SRS. 04
B Explain validation process of SRS. 06

- Q-5 A Write a short note on Coupling. 04
B Discuss the design objectives in detail with proper illustrations. 06

OR

- Q-5 A What is module specification? 04
B Write a short note on Cohesion. 06

- Q-6 A Explain the concept of information hiding in structured programming. 04
B Explain the Top-Down and Bottom-Up approach in coding. 06

OR

- Q-6 What is testing? Explain levels of testing in detail with diagrams. 10