

[53/A-08]

SRAT No. _____

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Sardar Patel University
Master of Computer Application
SEMESTER – IV Examination
PS04CMCA23: Software Engineering
Wednesday, 10th April, 2019

Time: 02:00 PM to 05:00 PM

Max Marks: 70

Q.1 Select the most appropriate answer for the following questions:

[8]

- i. The most important feature of spiral model is ____.
A) requirement analysis B) risk management
C) quality management D) None of these
- ii. Which of the following is **NOT** a component of ETVX?
A) Exit Criteria B) Test
C) Task D) Entry Criteria
- iii. ____ section of SRS is most useful for developers.
A) Introduction B) Overall Description
C) Specific Requirements D) External Interfaces
- iv. In COCOMO, projects are categorized into ____.
A) 5 types B) 4 types
C) 3 types D) 2 types
- v. ____ abstraction forms the basis for OOD.
A) Functional B) Data
C) Requirement D) Class
- vi. A ____ is a systematic approach to creating a design by applying of a set of techniques and guidelines.
A) Design Methodology B) Design Model
C) Design Implementation D) None of these
- vii. Which of the following type of testing is impractical?
A) Alpha B) Beta
C) Exhaustive D) All of these
- viii. The type of software testing in which each module is tested along in an attempt to discover any errors in its code, is known as ____
A) Integration testing B) Acceptance testing
C) Mutation testing D) Unit testing

Q.2 Answer the following questions (Any seven):

[14]

- i. Define the term 'Software Engineering' and state the goal of SE.
- ii. Define the term 'Software'. List out general characteristics of a software.
- iii. List characteristics of web applications.
- iv. List out various quality attributes of a software.
- v. Write the full-form of: OOA, WBS, UML, COCOMO.
- vi. What is state diagram? Give an example.
- vii. What is regression testing? Why is it required?
- viii. Differentiate: Black-box testing and White-box testing.

ix. What do you mean by 'Software Reuse'? Why is it useful?

Q.3

A Explain prototyping model for software development with merits and demerits. [6]

B List desired characteristics of software process. Explain any two of them. [6]

OR

B Explain - various challenges for Software Engineering. [6]

Q.4

A Explain the desirable characteristics of an SRS. [6]

B Discuss Risk Management of a software project planning. [6]

OR

B Explain (i) Q&P and (ii) V&V [6]

Q.5

A Discuss the meaning of coupling with its types and factors affecting coupling. [6]

B Explain the steps of methodology for producing structured design. [6]

OR

B What is UML? Explain (i) class diagram and (ii) sequence diagram by giving suitable examples. [6]

Q.6

A What is coding process? Explain TDD [6]

B Explain the terms (i) Error (ii) Fault and (iii) Failure by giving suitable examples of each. [6]

OR

B What do you mean by "Test Case"? Explain levels of testing. [6]

QUESTION NO. 10

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