

Program: Computer Engineering

Curriculum Scheme: 2019

Examination: SE Semester V

Course Code: CSC502 and Course Name: Software Engineering

Time: 2 hours 30 Minutes

Max. Marks: 80

Q1.	Choose the correct option for following questions. All the Questions are compulsory and carry equal marks
1.	What are the major activities of the spiral model of software engineering?
Option A:	Defining, Prototyping, Testing, Delivery
Option B:	Planning, Risk Analysis, Engineering, Customer Evaluation
Option C:	Quick Design, Build Prototype, Evaluate Prototype, Refine Prototype
Option D:	Requirements
2.	A model in which project management processes were step-by step.
Option A:	Incremental
Option B:	Waterfall
Option C:	Spiral
Option D:	Prototyping
3.	Which model is the demo implementation of the system?
Option A:	Waterfall
Option B:	Prototype
Option C:	Incremental
Option D:	Agile
4.	In which stage individual components are integrated and ensured that they are error-free to meet customer requirements
Option A:	Coding
Option B:	Testing
Option C:	Design
Option D:	Implementation
5.	What do you call, when the elements of a module, all operate on the same data?
Option A:	Functional
Option B:	Temporal
Option C:	Communicational
Option D:	Procedural
6.	A design is said to be a good design if the components are
Option A:	Strongly coupled
Option B:	Weakly cohesive
Option C:	Strongly coupled and weakly cohesive
Option D:	Strongly cohesive and weakly coupled
7.	In choosing a development life-cycle model, one would consider the
Option A:	Organizational Structure, User Tasks, Performance Criteria
Option B:	Development Group Expertise, Problem Characteristics, User Expectations
Option C:	Languages, Development Schedule, Competition
Option D:	System Context, User Population, Platforms

8.	What do you call when two modules are coupled, when they communicate via a composite data item?
Option A:	Content coupling
Option B:	Common coupling
Option C:	Stamp coupling
Option D:	Data Coupling
9.	How does a software project manager need to act to minimize the risk of software failure?
Option A:	Double the project team size
Option B:	Subtractive
Option C:	Multiplicative
Option D:	Division
10.	The degree of interaction between two modules is known as
Option A:	Cohesion
Option B:	Strength
Option C:	Coupling
Option D:	Inheritance
11.	Which of the following is not the guiding principle of software project scheduling?
Option A:	Market assessment
Option B:	Compartmentalization
Option C:	Time allocation
Option D:	Effort validation
12.	If a control switch is passed as an argument this is an example of _____ coupling.
Option A:	Content
Option B:	Common
Option C:	Control
Option D:	Data
13.	In Intermediate COCOMO the mode that represents complex products is referred to as _____.
Option A:	Embedded
Option B:	Semidetached
Option C:	Organic
Option D:	Multiplicative
14.	In planning a software project one would _____
Option A:	Find ways to produce results using limited resources
Option B:	Pad the schedule to accommodate errors
Option C:	Overestimate the budget
Option D:	Structure the team to prevent administrative interference
15.	Empirical estimation models are typically based on _____
Option A:	Expert judgment based on past project experiences
Option B:	Refinement of current project estimation
Option C:	Trial and error determination of the parameters and coefficients
Option D:	Refinement of current project estimation
16.	Which configuration objects would not typically be found in the project database?
Option A:	Executable code
Option B:	Marketing data

Option C:	Design specification
Option D:	Test plans
17.	Software Engineering is defined as _____
Option A:	Is a set of rules about developing software products
Option B:	Is a set of rules about developing software products
Option C:	Started as a response to the so-called 'Software Crisis' of the late 90's
Option D:	Is an engineering discipline concerned with all the aspects of software production
18.	Equivalence Partitioning comes under which type of Testing?
Option A:	White box testing
Option B:	Black box testing
Option C:	Grey Box Testing
Option D:	Regression Testing
19.	A simple way of looking at the spiral software life-cycle model is as a waterfall model with each phase preceded by _____
Option A:	Freezing
Option B:	Build-and-fix
Option C:	Risk Analysis
Option D:	Synchronization
20.	Software configuration activities would not include _____.
Option A:	Identify change
Option B:	Ensure improper implementation of change
Option C:	Control change
Option D:	Report change to interested parties

Q2. (20 Marks)	Solve any Four Questions out of Six	05 marks each
A	What are potential problems of prototyping model?	
B	Explain with suitable diagram Scrum Agile Model.	
C	What do you understand by software maintenance? Also explain different types of software maintenance	
D	Explain the term Configuration management.	
E	What are the benefits of metrics in software engineering?	
F	Compare waterfall and spiral model	
Q3. (20 Marks )	Solve any Two Questions out of Three	10 marks each
A	Explain concept of data flow diagram.	
B	Why Integration testing is needed to test software? Explain different incremental integration strategies	
C	What are the different categories of Risks? Explain the steps in developing RMMM plan.	
Q4. (20 Marks )	Solve any Two Questions out of Three	10 marks each
A	Explain COCOMO II estimation model.	
B	Explain Black box testing with its types.	
C	Explain in detail the Software Configuration Management process with suitable diagram	