

Software Engineering (May-2022)

University of Mumbai

Examinations Summer 2022

Time: 2hour 30 minutes Max. Marks: 80

Q1.	Choose the correct option for following questions. All the Questions are compulsory and carry equal 2 marks
1.	Which of these software engineering activities are not a part of software processes?
Option A:	Software dependence
Option B:	software development
Option C:	Software validation
Option D:	Software specification
2.	Cyclomatic complexity $V(G)$ for a graph G is defined as where E = the number of flow graph edges, and N = the number of flow graph nodes
Option A:	$V(G) = E - N + 2$
Option B:	$V(G) = N - E + 2$
Option C:	$V(G) = E - N + 1$
Option D:	$V(G) = N - E + 1$
3.	Which of the following is not the Phases of Unified Process?
Option A:	Inception phase
Option B:	Elaboration phase
Option C:	Construction phase
Option D:	Translation phase
4.	Which model assumes that systems are created from reusable components, scripting or database programming?
Option A:	A post-architecture model
Option B:	An application-composition model
Option C:	A reuse model
Option D:	An early design model
5.	Identify the disadvantage of Spiral Model.

Option A:	Doesn't work well for smaller projects
Option B:	High amount of risk analysis
Option C:	Strong approval and documentation control
Option D:	Additional Functionality can be added at a later date
6.	When multiple modules share common data structure and work on different part of it, it is called _____.
Option A:	Common coupling
Option B:	Share coupling
Option C:	Data coupling
Option D:	Stamp coupling
7.	What assess the risk and your plans for risk mitigation and revise these when you learn more about the risk?
Option A:	Risk monitoring
Option B:	Risk planning
Option C:	Risk analysis
Option D:	Risk identification
8.	In which environment we can performed the Beta testing?
Option A:	User's and developer's end
Option B:	Developer's end
Option C:	User's end
Option D:	System's end
9.	_____ is not the type of control structure testing
Option A:	Condition Testing
Option B:	Data Flow Testing
Option C:	Loop Testing
Option D:	Orthogonal Array Testing
10.	Which of the following is the worst type of module coupling?
Option A:	Control Coupling

Option B:	Stamp Coupling
Option C:	External Coupling
Option D:	Content Coupling

Question 2	Solve any Two out of Three	10 marks each
A	Explain the Software Process with detailed umbrella activities.	
B	What is the use of use case diagram? Draw use case diagram for hospital management system.	
C	Explain The SCM (Software Configuration Management) Process with version control and change control.	

Question 3	Solve any Two out of Three	10 marks each
A	Explain COCOMO Model.	
B	What is user interface design? Explain it with example.	
C	Compare Verification and Validation Testing.	

Question 4	Solve any Four Questions out of Six	5 marks each
A	Discuss incremental model for software development with merits and demerits.	
B	Explain Coupling and Cohesion? Explain the types of coupling with example.	
C	Explain different steps in risk management with suitable diagram	
D	Explain the System Testing methods.	
E	Explain principles of Agile Methodology.	
F	What is Software Re-engineering and Reverse Engineering? Explain.	