QP.Code	U21IT G1 - 1A	Reg.No	

KPR Institute of Engineering and Technology
(Autonomous)
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Learn Beyond

Dept.:	CS(AM)
Ac.Yr.: 2024 – 2025	

Course Code & Title	:	U21ITG01	Software Engineering	
Year	:	II	Semester: 04	Date: 19.05.2025 - AN
CIAT	:	II	Duration: 90 Minutes	Maximum Marks: 60

Q. No	Section – A (10X1=10 Marks) Answer All Questions	Marks	BT	CO
1	Which of the following best defines modularity in software design? a Combining multiple modules into one program b Designing software with minimal documentation c Dividing software into separate, manageable parts d Reducing software to a single function	1	U	CO3
2	Which design approach focuses on real world entities and their interaction? a Functional design b Procedural design c Object oriented design d Top-down design	1	U	CO3
3	What is the main focus of white box testing? a Checking user interface design b Testing internal code logic c Testing overall system performance d Validating database schema	1	U	CO4
4	System testing is performed to: a Test individual modules b Debug errors in code c Validate the complete integrated system d Check database connectivity	1	U	CO4
5	Debugging is the process of a Writing test cases b Creating design documents c Identifying and fixing errors d Writing specifications	1	U	CO4
6	Which one is the type of black box testing? a Control flow testing b Statement coverage c Equivalence partitioning d Loop testing	1	U	CO4
7	What does CASE stand for? a Computer algorithm for software Engineering b Computer Aided Software Engineering c Control and Analysis of software Elements d Core Architecture for software Execution	1	U	CO5
8	Upper CASE tools are primarily in which phase of the software development life cycle? a Maintenance b Testing c Requirements and Design d Deployment	1	U	CO5
9	Component based software engineering promotes a Writing code from scratch b Reusing existing software modules c Ignoring system documentation d Manual testing of every component	1	U	CO5

10	Which of the following is a goal of software process improvement?				1	U	CO5
	a	Increasing design complexity	b	Reduce maintainability			
	c	Enhance quality and productivity	d	Introduce more errors			

Q.No	Section – B (10X2=20 Marks) Answer All Questions	Marks	BT	CO
11	Explain the concept of cohesion and coupling in software design.	2	U	CO3
12	Differentiate between object-oriented and function-oriented design.	2	U	CO3
13	Describe black box testing with an example.	2	U	CO4
14	What are the steps involved in model-bases testing.	2	U	CO4
15	Write short notes on performance testing.	2	U	CO4
16	Illustrate the techniques used for security testing.	2	U	CO4
17	Show the architecture of a CASE environment.	2	U	CO5
18	Discuss the scope of CASE in software engineering	2	U	CO5
19	Compare Upper CASE and Lower CSE tools.	2	U	CO5
20	List the advantages of component-based software engineering.	2	U	CO5

Q.No	Section – C (1X6=6 Marks & 2X12=24 Marks) Answer All Questions	Marks	BT	CO
21 a)	Explain the software design process with suitable models.	6	AP	CO3
	(Or)			
21 b)	Explain object-oriented analysis and design with an example.	6	AP	CO3
22 a)	Construct various software testing strategies.	12	AP	CO4
	(Or)			
22 b)	Explain the differences and similarities between white and black box testing with examples	12	AP	CO4
23 a)	Discuss the architecture and components of CASE tools.	12	AN	CO5
	(Or)			
23 b)	Explain the significance of software process improvement and discuss any one model I details.	12	AN	CO5