ST JOSEPH ENGINEERING COLLEGE, MANGALURU

An Autonomous Institution

Fifth Semester B.E. Degree (Autonomous) Examinations Mar/Apr-2024

USN: | | | | | | | | | | |

21CSE501

Duration: 3 Hrs **Maximum Marks: 100**

SOFTWARE ENGINEERING AND PROJECT MANAGEMENT

Note:

1. **Part-A** is mandatory.
2. Answer any five full questions from **Part-B** choosing at least one from each module.
3. Missing data may be suitably assumed.

PART-A

Q.No.	Question				BL	CO	PO	Marks
1	Software Engineering is				L2	1	PO1, PO7	1
	a)	Designing a software	b)	Testing a software				
	c)	Application of engineering principles to the design a software	d)	None of the above				
2	Functional Requirement				L2	2	PO1, PO7	1
	a)	specifies the tasks the program must complete	b)	specifies the tasks the program should not complete				
	c)	specifies the tasks the program must not work	d)	All of the mentioned				
3	Attributes of good software is				L2	1	PO1, PO7	1
	a)	Development	b)	Maintainability & functionality				
	c)	Functionality	d)	Maintainability				
4	Agile Software Development is based on which of the following type				L2	2	PO1, PO7	1
	a)	Iterative Development	b)	Incremental Development				
	c)	Both Incremental and Iterative Development	d)	Linear Development				
5	Which of the following document contains the user system requirements				L2	3	PO3, PO4	1
	a)	SRD	b)	DDD				
	c)	SDD	d)	SRS				
6	The word which describes the importance of software design is?				L2	4	PO4, PO5	1
	a)	Complexity	b)	Quality				
	c)	Efficiency	d)	Accuracy				
7	Unit testing is done by				L2	4	PO4, PO5	1
	a)	Users	b)	Developers				
	c)	Customers	d)	None of the above				

Q.No.	Question				BL	CO	PO	Marks
8	Which Agile practice emphasizes delivering small, incremental improvements to the software?				L2	2	PO1, PO7	1
	a)	Sprint planning	b)	Continuous integration				
	c)	Iterative development	d)	Waterfall approach				
9	Which model is also known as verification and validation model				L2	4	PO4, PO5	1
	a)	Waterfall	b)	Prototype				
	c)	V-model	d)	Evolutionary				
10	What is the primary goal of Agile development?				L2	2	PO1, PO7	1
	a)	Comprehensive documentation	b)	Following a strict plan				
	c)	Responding to change and delivering working software	d)	Adhering to a fixed schedule				
11	What is the key benefit of using Agile development practices?				L2	2	PO1, PO7	2
12	What is the primary goal of regression testing?				L2	4	PO4, PO5	2
13	Which phase of the software development life cycle typically involves User Acceptance Testing (UAT)? Why?				L2	4	PO4, PO5	2
14	Differentiate functional and non-functional requirements?				L2	2	PO1, PO7	2
15	What is the purpose of project planning?				L2	5	PO4, PO5	2
	PART-B							
	Module-1							
1	a)	Define Software Engineering. Explain Software Engineering ethics.			L2	1	PO1, PO7	8
	b)	With the diagram, Explain the architecture of digital online (Virtual) learning environment for school. Describe the types of services in the system.			L2	1	PO1, PO7	8
	OR							
2	a)	Explain Incremental development process model with a neat block diagram.			L2	1	PO1, PO7	8
	b)	What are the good attributes of software? Explain key challenges faced in software engineering.			L2	1	PO1, PO7	8
	Module-2							
3	a)	What is requirement specification? Explain various ways of writing system requirements.			L2	2	PO1, PO7	8
	b)	What is software design and implementation? Explain the general model of design process with the neat diagram.			L2	2	PO1, PO7	8
	OR							
4	a)	With the neat diagram explain requirement elicitation and analysis process.			L2	2	PO4, PO7	8
	b)	Explain the following : 1) Non-functional requirements with example 2) Extreme programming (XP)			L2	2	PO4, PO7	8
	Module-3							
5	a)	Describe interaction model with example.			L2	3	PO3, PO4	8
	b)	Draw and explain state diagram for the microwave oven.			L2	3	PO3, PO4	8

Q.No.		Question	BL	CO	PO	Marks
		OR				
6	a)	Explain with neat diagram three types of abstract system model recommended by model driven engineering.	**L2**	**3**	**PO3, PO4**	**8**
	b)	Draw and explain sequence diagram with example to view patient information.	**L2**	**3**	**PO3, PO4**	**8**
		Module-4				
7	a)	Describe the three different types of user testing.	**L2**	**4**	**PO4, PO5**	**8**
	b)	Explain four elements of design pattern.	**L2**	**4**	**PO4, PO5**	**8**
		OR				
8	a)	With the neat diagram explain the test driven development process and its benefits.	**L2**	**4**	**PO4, PO5**	**8**
	b)	What is component testing? What are the different types of interface to be tested during component testing? Explain.	**L2**	**4**	**PO4, PO5**	**8**
		Module-5				
9	a)	What are the strategic opinions involved in legacy system management? Explain the factors affecting software pricing?	**L2**	**5**	**PO4, PO5**	**8**
	b)	Discuss software quality and its attributes. Explain process based quality.	**L2**	**5**	**PO4, PO5**	**8**
		OR				
10	a)	Discuss project plan. Explain sections of project plan	**L2**	**5**	**PO4, PO5**	**8**
	b)	Describe risk identification with the help of risk item checklist.	**L2**	**5**	**PO4, PO5**	**8**