Reg.No.:												

VIVEKANANDHA COLLEGE OF ENGINEERING FOR WOMEN
[AUTONOMOUS INSTITUTION AFFILIATED TO ANNA UNIVERSITY, CHENNAI]
Elayampalayam – 637 205, Tiruchengode, Namakkal Dt., Tamil Nadu.

Question Paper Code: 50036

M.E. / M.Tech. DEGREE END-SEMESTER EXAMINATIONS – JAN. 2025
Third Semester
Computer Science and Engineering
P23CSE12– SOFTWARE PROJECT MANAGEMENT
(Regulation 2023)

Time: Three Hours | Maximum: 100 Marks

Answer ALL the questions

Knowledge Levels (KL)	K1 – Remembering	K3 – Applying	K5 - Evaluating
	K2 – Understanding	K4 – Analyzing	K6 - Creating

PART – A

(10 x 2 = 20 Marks)

Q.No.	Questions	Marks	KL	CO
1.	Relate prediction and prescription concerning the SDLC.	2	K1	CO1
2.	List any 3 benefits of daily scrum meetings.	2	K1	CO1
3.	Tell about functional requirements? In what ways can the functional requirements be presented.	2	K1	CO2
4.	Traceability in software testing is often done using a traceability matrix. Mention the details available in the traceability matrix.	2	K2	CO2
5.	State the significance of Risk prioritization.	2	K2	CO3
6.	Summarize the working method of Wideband Delphi technique.	2	K1	CO3
7.	Find the key requirements of artifacts.	2	K1	CO4
8.	In what way the bug tracking help the team in software development.	2	K2	CO4
9.	Show the ETVX diagram for software development.	2	K1	CO5
10.	Recall the determination of relationship between the elements.	2	K2	CO5

PART – B

(5 x 13 = 65 Marks)

Q.No.		Questions	Marks	KL	CO
11.	a)	Discuss the key features of the Personal Software Process and Team software process. Also, compare the pros and cons of these processes in terms of productivity, complexity, documentation, and cost.	13	K3	CO1
		(OR)			
	b)	For a Library management system, the following actions will take place: • The librarian request the system to create a new online library account • The librarian then selects the library user account type • The librarian enters the user's details • The user's details are checked using the user Credentials Database • The new library user account is created • A summary of the new account's details are then emailed to the user. Illustrate the roles played by the team members, when the project is developed using agile process and any traditional approach. Also, compare and explain the return on investment (ROI) considering both approaches.	13	K3	CO1
12.	a)	Illustrate how to determine which quality attribute requirements are important before a system is built. Also, elucidate the steps involved in a quality attribute workshop.	13	K3	CO2
		(OR)			
	b)	Depict the life cycle of the architecture-centric development method and explain the two phases of ACDM in detail.	13	K3	CO2
13.	a)	Analyze the following scenario and identify which type of estimation is used in the given scenario. Compare and contrast the different estimation techniques. XYZ company is looking at doing an estimate for a web design project. There are three parts to the project: design the website, make content for the website, and develop the website. Each part is estimated: o $40 per hour and 20 hours for the graphic designer (total: $800) o $20 per hour and 15 hours for the copywriter (total: $300)	13	K3	CO3

- $30 per hour and 50 hours for the developer (total: $1500)
- These three totals make a grand total of $2600.

(OR)

	b)	Explain the calculation involved in the earned value method with an earned value analysis example.	13	K3	CO3
14.	a)	Discuss the best practices followed in naming and version control with examples.	13	K2	CO4
		(OR)			
	b)	Illustrate the different situations where the test cases are written. Also emphasize the importance of writing test cases with their parameters.	13	K2	CO4
15.	a)	Deliberate the key characteristics of process architecture with the example of a goal-based process architecture approach.	13	K2	CO5
		(OR)			
	b)	Six Sigma teams usually use DMAIC or DMADV approaches to achieve process improvements and establish process control. Explain both approaches in detail.	13	K2	CO5

PART – C

(1 x 15 = 15 Marks)

Q.No.		Questions	Marks	KL	CO
16.	a)	A company needs to develop digital signal processing software for one of its newest inventions. The software is expected to have 40000 lines of code. The company needs to determine the effort in person-months needed to develop this software using the basic COCOMO II model. The multiplicative factor for this model is given as 2.8 for the software development on embedded systems, while the exponentiation factor is given as 1.20. What is the estimated effort in person-months? And illustrate the steps involved in COCOMO II.	15	K3	CO3
		(OR)			
	b)	To test any application, we need to go through all the phases of SDLC. Like SDLC, there is a multiple levels of testing, which help us to maintain the quality of the software. Discuss and compare all the levels of testing in terms of dependency, stage, cost, testing technique, complexity, and examples.	15	K2	CO4