Total No. of Printed Pages: 02

PRN No.	

PAPER CODE	U313-234 (RE)

December 2023 (REEXAM)

TY (SEMESTER - I)

COURSE NAME: SOFTWARE ENGINEERING AND PROJECT MANAGMENT **Branch: COMPUTER** **COURSE CODE: CSUA31204**

(PATTERN 2020)

Time: [2 Hrs] **[Max. Marks: 60]**

Instructions to candidates:

1) **Figures to the right indicate full marks.**
2) **Use of scientific calculator is allowed**
3) **Use suitable data wherever required**
4) **All questions are compulsory. Solve any two sub questions each from each Question 1,2, 3,4,5,and 6 respectively**

Q. No.	Question Description	Max. Marks	CO mapped	BT Level
Q.1	a) Consider a sample project: Developing a Content Management System (CMS) for a small publishing company that wants to manage and organize its articles, images, and multimedia content for online publishing. Identify and analyze which Software development process model will be applicable to it.	[5]	1	Analyze
	b) Identify the type of given myth and state its reality: It implies that adopting a specific tool, technology, or methodology will automatically lead to project success without the need for careful planning, skilled teams, or effective project management.	[5]	1	Analyze
	c) Consider a simple example of an Online Task Management System and explore the technologies or tools associated with process layer of software engineering	[5]	1	Analyze
Q2	a) Apply steps involved in requirement engineering process for sample project.	[5]	2	Apply
	b) Draw use-case diagram for student database and mention extends relationship in it.	[5]	2	Apply
	c) Draw state chart diagram for telephone system and mention idle state in it.	[5]	2	Apply
Q3.	a) Utilize JIRA to create a sample Agile project board. Include tasks, user stories, and sprints. b) Apply Agile design principles to a hypothetical project.	[5]	3	Apply

	Outline the key phases and describe how collaboration and adaptability are fostered. c) Apply the principles of sustainable design to a product of your choice. Describe how sustainability considerations can be integrated into the design process.	[5] [5]	3 3	Apply Apply
Q.4	a) Demonstrate attributes of project manager for developing and launching customer relationship management (CRM) software for a medium-sized business. b) List and Classify the different categories of Risk associated with online banking application. c) List 4 risks involved in web development project and prepare a risk table/risk register for it.	[5] [5] [5]	4 4 4	Apply Apply Apply
Q.5	a) Calculate Function Point(FP) when complexity adjustment factors are moderate product and weighting factors are high for following values: 1. External Inputs (Count=10 and Weighting Factor (WF) Average=4), 2. External Output (Count=30 and WF Average=4), 3. External Enquired (Count=50 and WF High =4), Internal Logic Files (Count=10 and WF Average =10), External Interface Files (Count=20 and WF Average =7). b) Estimate Person (N) for project by considering a software project using semi-detached mode with 30000 LOC. Assume suitable a1, a2, b1 and b2. c) Calculate the effort required to develop the software product and the nominal development time using basic COCOMO model where size of an organic type software product has been estimated to be 32,000 lines of source code and average salary of software engineers be Rs. 15,000/- per month.	[5] [5] [5]	5 5 5	Apply Apply Apply
Q.6)	a) Develop a plan for involving end-users in the system implementation phase. How can their feedback be systematically gathered to improve the system? b) In a hypothetical project with tight deadlines and a need for quick decision-making, determine which leadership style (directive or collaborative) would be more effective. Justify your choice. c) Demonstrate the potential impact of inconsistent performance management on team morale and project outcomes. Propose strategies for improvement.	[5] [5] [5]	6 6 6	Apply Apply Apply