23NMB425N

PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)

BVoc DEGREE EXAMINATION DECEMBER 2025
(Fourth Semester)

Branch – **NETWORKING AND MOBILE APPLICATION**

SOFTWARE ENGINEERING

Time: Three Hours Maximum: 75 Marks

SECTION-A (10 Marks)
Answer **ALL** questions
ALL questions carry **EQUAL** marks (10 × 1 = 10)

Module No.	Question No.	Question	K Level	CO
1	1	What does the term 'Process model' refer to in software engineering? a) A physical model of software b) A representation of the software development process c) A model of user interface design d) A programming model	K1	CO1
	2	Outline a generic process model benefit software engineering? a) It provides a one-size-fits-all solution b)It allows for flexibility and adaptation to specific projects c)It eliminates the need for project management d) It focuses solely on coding practices	K2	CO1
2	3	What is the main purpose of prototype evaluation in the software development process? a) To release the final product b) To collect feedback and assess the usability of the prototype c) To define system requirements d) To document system functionality	K1	CO2
	4	Extend the purpose of the "go/no-go decision" in the recommended software process model? a) To decide whether to release the final product immediately b) To determine if the project should continue or be halted based on prototype evaluation c) To define the architecture of the system d) To estimate the total cost of the project	K2	CO2
3	5	What is the primary purpose of "requirements gathering" in the requirements engineering process? a) To test the software's functionality b) To collect information about the needs and expectations of stakeholders c) To build the software architecture d) To create test cases for the software	K1	CO3
	6	Outline the involved in "validating requirements" in the context of requirements engineering? a) Ensuring that the requirements are feasible and meet stakeholder needs b) Gathering new requirements from stakeholders c) Designing the architecture based on requirements d) Writing test cases for the developed system	K2	CO3
4	7	Which of the following best describes the software quality dilemma? a) Balancing time and resources with the need for high-quality software b) Ensuring the software works under all conditions c) Maintaining consistency in user interface design d) Testing the software until it is error-free	K1	CO4

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	8	Show the following is typically used in test case design? a) Writing documentation b) Defining input data, expected results, and the steps to execute the test c) Coding the application d) Scheduling project milestones	K2	CO4
5	9	Which risk management activity involves determining the potential consequences of a risk? a) Risk identification b) Risk mitigation c) Risk projection d) Risk monitoring	K1	CO5
	10	Rephrase the following would be a metric used specifically for evaluating software testing? a) Lines of code b) Number of test cases passed/failed c) Code coupling d) Development cost	K2	CO5

SECTION - B (35 Marks)

Answer **ALL** questions

ALL questions carry **EQUAL** Marks (5 × 7 = 35)

Module No.	Question No.	Question	K Level	CO
1	11.a.	Explain the scope and purpose of software engineering in the context of software development.	K2	CO1
		(OR)		
	11.b.	What is a task set and explain how does it contribute to the effective execution of a software process model?		
2	12.a.	Build the role of "preliminary architecture design" in the software process model.	K3	CO2
		(OR)		
	12.b.	Develop how would you apply "resource estimation" in the early stages of a software project?		
3	13.a.	Build the importance of establishing the groundwork in the requirements engineering process.	K3	CO3
		(OR)		
	13.b.	Develop the term "monitoring requirements" mean in the context of requirements engineering?		
4	14.a.	Inference "software quality" and explain about its importance in software development.	K4	CO4
		(OR)		
	14.b.	Analyze the benefits and limitations of using white-box testing for validating security features of a software application.		
5	15.a.	Examine the concept of software measurement and why is it important in software development?	K4	CO5
		(OR)		
	15.b.	Analyze the role of risk monitoring and management during the software development process.		

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SECTION -C (30 Marks)

Answer **ANY THREE** questions

ALL questions carry **EQUAL** Marks (3 × 10 = 30)

Module No.	Question No.	Question	K Level	CO
1	16	Analyze how process assessment and improvement can be implemented in a software development organization.	K4	CO1
2	17	Inference the effectiveness of global software engineering teams. Consider factors like time zone differences, communication barriers, and cultural diversity, and their impact on project outcomes.	K4	CO2
3	18	Examine about process of developing use cases and their importance in the requirements engineering process.	K4	CO3
4	19	Compare white-box testing and black-box testing in terms of their advantages and limitations for software testing.	K5	CO4
5	20	Determine the importance of risk identification in the software development lifecycle. How does it help in mitigating potential threats to a project?	K5	CO5

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