ROLL NO. 2401320140

G.L. BAJAJ INSTITUTE OF TECHNOLOGY & MANAGEMENT
GREATER NOIDA
MCA (III SEM)
SESSIONAL TEST-1 (ODD SEM 2025-26)
Subject Name: Software Engineering (BMC-302)

Faculty Name: Ms. Shanta Satyapathi, Mr. Nirmal Saraswat

Time: 2:00 Hrs **Max. Marks: 50**

Note:
(i) No student will be allowed to leave the examination Room before end of exam.
(ii) Diagram should be neat and clean.
(iii) Mention Question number/section correctly.
(iv) Be precise in your answer.
(v) Do not write anything on question paper except Roll number.

Course Outcomes:

Following are the course outcomes of the subject: -

CO Code	Course Outcome(CO)	Bloom's Level
CO 1	Explain various software characteristics and analyze different software Development Models.	K1, K2
CO 2	Demonstrate the contents of a SRS and apply basic software quality assurance practices to ensure that design, development meet or exceed applicable standards.	K1, K2
CO 3	Compare and contrast various methods for software design.	K2, K3
CO 4	Formulate testing strategy for software systems, employ techniques such as unit testing, Test driven development and functional testing.	K3
CO 5	Manage software development process independently as well as in teams and make use of various software management tools for development, maintenance and analysis.	K5

Section: A

1. Attempt all questions. (2*5= 10)

Q.No.	Questions	Marks	CO	BL
a)	How do MNC companies ensure that the Software Engineering Process is followed uniformly across projects?	2	CO1	K2
b)	In a team project, why is defining software requirements early in the process important?	2	CO1	K2
c)	If you were developing a mobile banking app, which software process model would you choose and why?	2	CO1	K2
d)	Describe which software quality attribute ensures that the software continues to function correctly after modifications?	2	CO2	K1
e)	Why is documentation essential in SRS, even if requirements are already discussed with the client?	2	CO2	K2

Section: B

2. Attempt any four of the following: (4*5 = 20)

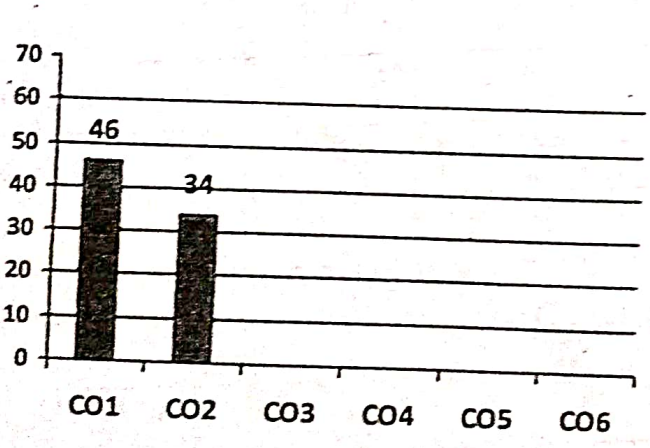
Q. No.	Questions	Marks	CO	BL
a)	How does Google continuously improve products like Gmail or Chrome using iterative enhancement?	5	CO1	K2
b)	Suppose you are tasked with developing a banking management system.	5	CO1	K2

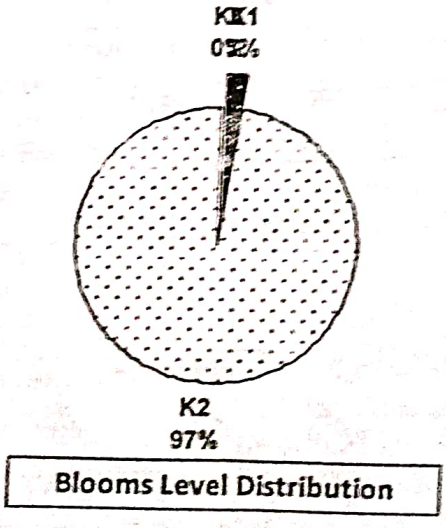
	Describe and clarify the most suitable SDLC model.			
c)	Express the importance of Software Quality Attributes (like maintainability, portability, and reliability) in determining project success.	5	CO2	K2
d)	Express the effectiveness of IEEE SRS standards in reducing ambiguity and improving requirement communication.	5	CO2	K2
e)	Critically assess the role of Software Quality Assurance (SQA) frameworks in improving software reliability and reducing failures.	5	CO2	K2
f)	Given a Data Flow Diagram (DFD) and an Entity-Relationship Diagram (ERD), analyse how they complement each other in requirement analysis.	5	CO2	K2

Section: C

3. Attempt any one question		(10 *1 = 10)		
Q. No.	Questions	Marks	CO	BL
a)	A startup and a large company both plan to develop similar HR management software. Explain why the startup may avoid the Waterfall Model while large company may prefer it.	10	CO1	K2
b)	Why do Software companies allocate significant time to testing and maintenance phases?	10	CO1	K2

4. Attempt any one question		(10 *1 = 10)		
Q. No.	Questions	Marks	CO	BL
a)	Many startups use Prototype models before full development. Explain how this reduces risk and rework costs.	10	CO1	K2
b)	A software company is creating core banking software. Describe how a software company ensures the SRS document follows IEEE standards, why accurate documentation is critical, and the potential consequences if requirements are incomplete or ambiguous.	10	CO2	K2





Checked By

(Head of Department)