

PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)

BSc DEGREE EXAMINATION MAY 2026
(Fourth Semester)

Branch- COMPUTER SCIENCE

SOFTWARE ENGINEERING & TESTING

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	Which of the following is NOT a software process model? a) Waterfall b) Spiral c) Agile d) Entity-Relationship Model	K1	CO1
	2	Agile modelling mainly emphasizes on _____. a) Heavy documentation b) Flexibility & communication c) Rigid design d) Sequential approach	K2	CO1
2	3	In requirement engineering, UML is primarily used for _____. a) Coding b) Designing c) Requirement representation d) Testing	K1	CO2
	4	Cohesion in software design refers to _____. a) Degree of dependence between modules b) Degree of relation within a module c) Cost of a project d) Type of architecture	K2	CO2
3	5	CMM in Software Process Improvement stands for _____. a) Capability maturity model b) Code management model c) Capability management model d) None	K1	CO3
	6	Which life cycle model is best suited for projects with unclear requirements? a) Waterfall b) Spiral c) Big Bang d) V-Model	K2	CO3
4	7	Black box testing mainly focuses on _____. a) Internal logic b) Code path c) Input-output behaviour d) Compiler design	K1	CO4
	8	Which of the following is NOT a white-box testing technique? a) Condition coverage b) Decision coverage c) Equivalence partitioning d) Loop testing	K2	CO4
5	9	Integration testing is performed to check _____. a) Individual modules b) Combined modules c) End-users d) Documentation	K1	CO5
	10	A test plan mainly includes _____. a) Test objectives b) Test deliverables c) Scheduling d) All of the above	K2	CO5

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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 characteristics of a Software Engineer.	K2	CO1
		(OR)		
	11.b.	Explain about nonfunctional requirements.		
2	12.a.	Apply requirement models to a real-world system and identify their advantages and limitations.	K3	CO2
		(OR)		
	12.b.	Apply UML Use Case diagram to a system and show how it captures system functionality.		
3	13.a.	Illustrate the approaches of Software Process Improvement (SPI).	K2	CO3
		(OR)		
	13.b.	Compare different Software Development Life Cycle (SDLC) models.		
4	14.a.	Compare White Box Testing and Black Box Testing with examples.	K4	CO4
		(OR)		
	14.b.	Analyze the various challenges in Agile and Extreme Testing.		
5	15.a.	Write short notes on Integration Testing and its types.	K2	CO5
		(OR)		
	15.b.	Explain the importance of Test Planning with suitable example.		

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	Define Software. Explain different process models with neat diagram.	K2	CO1
2	17	Explain Software Architecture Description and Decision Taxonomy with suitable example.	K2	CO2
3	18	Analyze the Requirement Engineering and explain the challenges in Requirement engineering.	K4	CO3
4	19	Explain different types of White Box and Black Box Testing with neat diagram.	K5	CO4
5	20	Examine the Test Plan and Test Report for a Banking Application.	K4	CO5

Z-Z-Z END