

Enrollment No.....



Faculty of Engineering  
End Sem Examination Dec 2024  
OE00046 Software Testing

Programme: MCA

Branch/Specialisation: Computer  
Application**Duration: 3 Hrs.****Maximum Marks: 60**

Note: All questions are compulsory. Internal choices, if any, are indicated. Answers of Q.1 (MCQs) should be written in full instead of only a, b, c or d. Assume suitable data if necessary. Notations and symbols have their usual meaning.

		Marks	BL	PO	CO	PSO
Q.1	i. What does the term "Test coverage" refer to in software testing?	1	1	2	1	
	(a) The extent to which the source code is tested					
	(b) Types of test cases prepared					
	(c) Number of test cases passed					
	(d) Software performance indicators					
	ii. In white box testing, which technique focuses on testing all paths in the program?	1	1	1	1	
	(a) Boundary value analysis					
	(b) Decision coverage					
	(c) Path testing					
	(d) Regression testing					
	iii. What is a primary benefit of automation testing?	1	1	1	1	
	(a) Cost reduction in manual testing					
	(b) Immediate feedback on quality					
	(c) Reduced time to market					
	(d) All of these					
	iv. What is the main purpose of a test case?	1	2	2	1	
	(a) Describes software requirements					
	(b) Documents bugs					
	(c) Specifies inputs and expected results for testing					
	(d) Identifies system design flaws					

[2]

v.	Which of the following is not a white box testing technique?	<b>1</b>	2	2	1
	(a) Statement coverage				
	(b) Decision coverage				
	(c) State transition testing				
	(d) Condition coverage				
vi.	Selenium WebDriver is used to:	<b>1</b>	2	4	3
	(a) Generate test cases automatically				
	(b) Interact with web elements during testing				
	(c) Analyze performance metrics				
	(d) Conduct usability tests				
vii.	Black box testing is based on:	<b>1</b>	1	2	1
	(a) Code structure				
	(b) System functionality				
	(c) Developer's intuition				
	(d) Code comments				
viii.	Which phase in STLC includes test case design?	<b>1</b>	2	3	2
	(a) Test planning				
	(b) Test execution				
	(c) Test case development				
	(d) Test closure				
ix.	In exploratory testing, which factor is not pre-planned?	<b>1</b>	2	2	1
	(a) Test cases				
	(b) Test documentation				
	(c) Testing scope				
	(d) Testing criteria				
x.	What is smoke testing in software development?	<b>1</b>	1	1	1
	(a) Extensive testing of individual units				
	(b) Basic initial testing to verify stability				
	(c) Testing of all user interfaces				
	(d) Testing in a production environment				
Q.2	i. Discuss the importance of software testing.	<b>2</b>	1	1	1
	ii. Discuss the role of tester with an example.	<b>3</b>	1	2	1
	iii. (a) Discuss defect, software defects and quality.	<b>5</b>	2	2	3
	(b) Explain why software is developed rather than manufactured.				
OR	iv. Discuss the importance of a test plan and list its key components.	<b>5</b>	2	3	2

[3]

Q.3	i. Discuss the importance of blackbox testing.	<b>2</b>	1	2	2
	ii. Discuss with an example why functional and nonfunctional testing is importance in software testing. Performance of the software is functional or nonfunctional testing. Justify your answer.	<b>8</b>	3	4	3
OR	iii. Given a login feature with a username and password input, design test cases using black-box testing techniques, specifically equivalence partitioning and boundary value analysis.	<b>8</b>	4	3	5
Q.4	i. Discuss the need of Usability testing with an example.	<b>3</b>	1	2	2
	ii. Explain various nonfunctional testing with an example.	<b>7</b>	2	3	3
OR	iii. Discuss: smoke testing, sanity testing, installation testing.	<b>7</b>	2	2	1
Q.5	i. How would you track and manage defects?	<b>4</b>	4	5	3
	ii. Given a registration form with fields for username, password, email, and phone number, write test scenarios to cover the most critical aspects of this feature.	<b>6</b>	4	5	5
OR	iii. List and explain key characteristics of a good test scenario. How can poor test scenarios impact the testing process?	<b>6</b>	2	2	2
Q.6	Attempt any two:				
	i. Discuss the importance of automated testing.	<b>5</b>	1	1	2
	ii. Explain test management tools with an example.	<b>5</b>	3	4	3
	iii. Discuss the need of test plan with an example.	<b>5</b>	3	4	2

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**Marking Scheme**  
**OE00046 (T) Software Testing (T)**

Q.1	i)	(a) The extent to which the source code is tested	1	Q.4	i.	Usability testing -2M Example -1M	3
	ii)	(c) Path testing	1		ii.	Non-functional testing -5M Example -2M	7
	iii)	(d) All of the above	1	OR	iii.	Smoke testing -2M Sanity-2M Installation testing-3M	7
	iv)	(c) Specifies inputs and expected results for testing	1				
	v)	(c) State transition testing	1	Q.5	i.	Track and manage defects-2M	2
	vi)	(b) Interact with web elements during testing	1		ii.	Test scenarios to cover -6	6
	vii)	(b) System functionality	1	OR	iii.	Key Characteristics-3M Quality test process-3M	6
	viii)	(c) Test Case Development	1				
	ix)	(a) Test cases	1	Q.6	i.	Importance of automated testing -5M	5
	x)	(b) Basic initial testing to verify stability	1		ii.	Explain management tool-3M Example-2M	5
Q.2	i.	Importance of software testing	2		iii.	Discuss test plant-3M Example-2M	5
	ii.	Role of tester-2M Example-1M	3	*****			
	iii.	a) Defect, software defects quality-3M b) Explain S/W development rather manufactured-2M	5				
	OR iv.	Importance of test plan -3M List of its key component-2M	5				
Q.3	i.	Importance of blackbox -2M	2				
	ii.	Example why-4M Performance -2M Justify-2M	8				
OR	iii.	Equivalence test case-4M Boundary test case-4M	8				