PRN:		Course Code :	MCA209

Second-Year **M.C.A.** End Semester Examination Winter 2022

Software Quality Assurance and Testing

Day and Date: Monday, 19.12.22 Max Marks: **100**

Time : 10.30am - 1.30pm Duration: **03** hrs

Instructions: All questions are compulsory.

			Marks	Bloom's Level	CO
Q.1		**Attempt the following**			
	a)	Distinguish between verification and validation.	08	L4	CO1
	b)	Explain any 8 Nature of Errors with an example	08	L2	CO1
		OR			
	b)	Explain the concept of Software review.	08	L2	CO1
Q.2		**Attempt the following**			
	a)	Differentiate between Black Box testing and white box testing.	08	L4	CO2
	b)	Illustrate testability with its characteristics.	08	L3	
		OR			
	b)	Discuss different techniques used in test case design	08	L3	CO2
Q.3		**Attempt any two from the following**			
	a)	Use the concept of Function Point Analysis for the Calculation of FP, Productivity, and Pages of documentation with proper examples.	08	L3	CO3
	b)	Discuss the concept of Complexity Metric with a suitable example	08	L3	CO3
	c)	Evaluate the following Concepts with respect to Halstead metrics N1,N2,n1,n2 for displaying "hello world" C Program.	08	L5	CO3
Q.4		**Attempt any two of the following**			
	a)	Design the Pareto diagram with a suitable example	08	L6	CO3
	b)	Explain any four stages of the Defect Management Process	08	L2	CO3
	c)	Use Quality Improvement concept in Defect Management Process	08	L3	CO3
Q.5		**Attempt any Two of the following**			
	a)	Explain formal technical review with its constraint, guidelines, and how it taken place	09	L2	CO3
	b)	Differentiate Quality Assurance and Quality Control.	09	L4	CO3
	c)	Illustrate the concept of ISO 9001 Quality standard	09	L3	CO3
Q.6		**Attempt any Two of the following**			
	a)	Distinguish in between functional testing and non-functional testing.	09	L4	CO4
	b)	Use the UI testing for the validation of final product developed for the end user.	09	L3	CO4
	c)	Discuss approaches that are used for test data generation?	09	L3	CO4

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