Code No: P18CIE04/ P18CBE02/ P18AME02 HALL TICKET NUMBER PACE INSTITUTE OF TECHNOLOGY & SCIENCES::ONGOLE (AUTONOMOUS) III B.TECH I SEMESTER END SUPPLEMENTARY EXAMINATIONS, MARCH/APRIL - 2023 SOFTWARE TESTING (Common to IT,CSE(IOTCSBT) AIML Branches) Time: 3 hours Max. Marks: 60

Note: Question Paper consists of Two parts (Part-A and Part-B)

PART-A

<u>1 AK1-A</u>

Answer all the questions in Part-A (5X2=10M)

Q.No.		Questions	Marks	CO	KL
1.	a)	What is Functional testing?	[2M]	1	1
	b)	Define Predicate. Give an example for Path Predicates?	[2M]	2	1
	c)	Define Flow anomaly detection?	[2M]	3	1
	d)	Differentiate defect and a failure?	[2M]	4	2
	e)	Name some tools that are involved in the automation of regression tests?	[2M]	5	1

PART-B Answer One Question from each UNIT (5X10=50M)

Q.1	No.	Questions	Marks	СО	KL
		UNIT-I			
2.	a)	What are the phases involved in software testing life cycle?	[5M]	1	1
	b)	Briefly explain about bug report?	[5M]	1	5
		OR	•		
3.	a)	State difference between verification and validation in software testing.	[5M]	1	2
	b)	Explain about Cause-Effect Graphing Technique with an Example?	[5M]	1	2
	•	UNIT-II	•	•	•
4.	a)	Discuss about different data object states in data flow graphs?	[5M]	2	6
	b)	Explain about application of Path testing?	[5M]	2	5
		OR	•		•
5.	a)	Compare Data flow and Path flow testing strategies.	[5M]	2	2
	b)	Explain Path instrumentation with an example?	[5M]	2	5
		UNIT-III	•		
6.	a)	Discuss about applications for Reduction Procedure?	[5M]	3	2
	b)	Explain Path Product and Path Expression?	[5M]	3	5
		OR	· '	ı	•
7.	a)	Explain the Reduction procedure algorithm with an example?	[10M]	3	5
	<u>'</u>	UNIT-IV	•		•
8.	a)	Discuss about Path Expression and its ways?	[5M]	4	6
	b)	Explain KV Charts and its specifications?	[5M]	4	2
	'	OR	1		'
9.	a)	Explain good and bad state graph with suitable example.	[5M]	4	5
	b)	Write about State testing in detail.	[5M]	4	2

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UNIT-V									
10.	a)	Briefly explain about matrix of graph relations.	[5M]	5	2				
	b)	Discuss about node reduction algorithm with an example.	[5M]	5	6				
OR									
11.	a)	Explain about Test Data Generation Tools?	[5M]	5	2				
	b)	Discuss about Genetic algorithm with an example.	[5M]	5	6				
