Program: SE Information Technology Engineering

Curriculum Scheme: Revised 2016

Examination: Final Year Semester VII

Course Code: ITDLO7034 **Course Name:** STQA
Time: 2-hour Max. Marks: 80

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Note to the students: -1. All the Questions are compulsory.

2. Q1. To Q20 carries 2 marks each.

Q1.	Order various testing in proper sequence:
Option A:	Function testing, Integration testing, System testing, Acceptance testing, Unit testing
Option B:	Unit testing, Integration testing, Function testing System testing, Acceptance testing
Option C:	Unit testing, Integration testing, System testing, Function testing, Acceptance testing
Option D:	Integration testing, Function testing, System testing, Acceptance testing, Unit testing
Q2.	Which test plan is made corresponding to requirement gathering?
Option A:	System test plan
Option B:	Integration test plan
Option C:	Acceptance test plan
Option D:	Unit test plan
Q3.	In the early stages of SDLC, testing comprises more _____ activities and towards the later stages, the emphasis is on the _____ activities.
Option A:	Unit, Integration
Option B:	Verification, Validation
Option C:	Validation, Verification
Option D:	Integration, Unit

Q4.	Bug discovery is a _____ goal of software testing.
Option A:	Short-term
Option B:	Long-term
Option C:	Post-implementation
Option D:	Pre-implementation
Q5.	A review is similar to an inspection or walkthrough, except that the review team also includes _____.
Option A:	Customer
Option B:	Developer
Option C:	Tester
Option D:	Management
Q6.	How many test cases will be there in worst case testing if there are 3 variables in a module?
Option A:	27
Option B:	13
Option C:	19
Option D:	125
Q7.	Test point analysis uses the _____ for calculating test points.
Option A:	Use case points
Option B:	Function points
Option C:	Number of test case
Option D:	Number of test defects
Q8.	In a project, the estimated function points are 760. Calculate the number of test cases in acceptance testing. Also calculate the defect density (no. of total defects is 456) and test case coverage.
Option A:	912,2864,0.7,3.768
Option B:	456,760,0.7,3.768
Option C:	2864,912,0.6,3.768

Option D:	760,456,0.6,3.768
Q9.	If the test suite is inadequate for retesting, then _____ .
Option A:	new test cases may be developed accordingly and added to the test suite.
Option B:	existing test suite should be modified by adding some more test cases.
Option C:	old test suite should be discarded or else it can used also.
Option D:	Altogether new test suit has to be developed after discarding old suit.
Q10.	The set of statements executed under a test case, having an effect on the program output under that test case, is called _____.
Option A:	dynamic slice
Option B:	execution slice
Option C:	relevant slice
Option D:	static slice
Q11.	Cluster-level testing refers to _____.
Option A:	testing of interactions among the components of an individual class.
Option B:	the internal testing of an individual method in a class.
Option C:	testing of interactions among the objects.
Option D:	External inputs and outputs visible to the users of a system.
Q12.	Which one is true?
Option A:	APFD = 1+((TF1+TF2+.....+TFm)/nm)+1/2n
Option B:	APFD = 1-((TF1+TF2+.....+TFm)/nm)+1/3n
Option C:	APFD = 1+((TF1+TF2+.....+TFm)/nm)+1/3n
Option D:	APFD = 1-((TF1+TF2+.....+TFm)/nm)+1/2n
Q13.	Presentation modelling transforms the _____ model in a set of models that show the static location of the objects visible to the user.
Option A:	navigation scope
Option B:	navigation structure
Option C:	object structure
Option D:	object scope
Q14.	Agile testing life cycle is based on _____ principle which focuses on communication management among stakeholders.
Option A:	more is more
Option B:	less is less
Option C:	less is more
Option D:	more is less
Q15.	In Scrum, _____ is a document which lists all the characteristics of software in prioritized order.
Option A:	SRS

Option B:	Sprint
Option C:	Product backlog
Option D:	Master
Q16.	If BMI is larger than 100, it means the back-log is _____.
Option A:	increased
Option B:	reduced
Option C:	remains same
Option D:	not related with BMI
Q17.	The structure of CMM consists of _____ maturity levels.
Option A:	six
Option B:	five
Option C:	four
Option D:	three
Q18.	TestDirector is _____ tool.
Option A:	Test management
Option B:	Function Testing
Option C:	Regression Testing
Option D:	Performance Testing
Q19.	Web-scenario modelling is done with the help of _____ diagrams.
Option A:	interaction diagrams
Option B:	state chart diagrams
Option C:	activity diagrams
Option D:	use-case diagrams
Q20.	Winrunner is _____ tool.
Option A:	Test management
Option B:	Function Testing
Option C:	Regression Testing
Option D:	Performance Testing
Q21.	Consider the program for calculating the factorial of a number. It consists of main () program and the module fact (). Evaluate Independent paths (if any) after calculating the individual cyclomatic complexity for main () and fact (). (10 marks)

	main()
	{
	int number;
	int fact();
	1. clrscr();
	2. printf("Enter the number whose factorial is to be found out");
	3. scanf("%d", &number);
	4. if(number <0)
	5. printf("Facorial cannot be defi ned for this number);
	6. else
	7. printf("Factorial is %d", fact(number));
	8. }
	int fact(int number)
	{
	int index;
	1. int product =1;
	2. for(index=1; index<=number; index++)
	3. product = product * index;
	4. return(product);
	5. }

Q22.	A program reads an integer number within a range [1,50] and determines it is odd number or not. Find the test cases using BVC, BVA, Worst case and Robust testing. (10 marks)
Q23.	Consider a project with the following parameters: EI = 50, EO = 40, EQ = 35, ILF = 06, and ELF = 04. Assume that al weighing factors are average. In addition, the system requires critical performance, average end-user efficiency, moderate distributed data processing, and critical data communication. Other GSCs are incidental. Compute the function points using FPA. (5 marks)
Q24.	Compare CMM and CMMI models. (10 marks)
Q25.	How many levels of test execution will you follow and describe them? (5 marks)