University of Mumbai

Program: **Information Technology**

Curriculum Scheme: Rev2016

Examination: BE Semester VII

Course Code: ITDLO7034 and Course Name: Software Testing and Quality Testing

Time: 2 hour

Max. Marks: 80

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Q1.	Choose the correct option for following questions. All the Questions are compulsory and carry equal marks
1.	Which of the following is not testing principle?
Option A:	Effective testing, not exhaustive testing
Option B:	Testing is a single phase performed in SDLC
Option C:	Destructive approach for constructive testing
Option D:	Start at the smallest module level and expand towards the whole program
2.	The activity of locating module in which bug appears, is known as ?
Option A:	Bug Classification
Option B:	Bug resolution
Option C:	Bug isolation
Option D:	Bug identification
3.	Which test plan is made corresponding to requirement gathering?
Option A:	Acceptance test plan
Option B:	System test plan
Option C:	Function & Integration test plan
Option D:	Unit test plan
4.	Which is Post - implementation goal of software testing ?
Option A:	Improved testing process
Option B:	Reliability
Option C:	Bug Prevention
Option D:	Risk management
5.	For given code

{if (a > b) |

	x = x + y;
	else
	x = y;
	printf("%d", x); }
	M1: x = x − y;
	M2: x = x / y;
	M3: x = x + 1;
	M4: printf("%d", y);
	M1,M2,M3 & M4 are mutants , input of x= 3 & y=2 will cover which mutant ?
Option A:	M1
Option B:	M2
Option C:	M3
Option D:	M4
6.	A program reads three numbers, A, B, and C, within the range [1, 50] and prints the largest number. How many test cases should be designed Robustness testing using boundary value analysis ?
Option A:	13
Option B:	19
Option C:	125
Option D:	25
7.	The testing which executes system in manner that demands resources in abnormal quantity , frequency or volume ?
Option A:	Performance testing
Option B:	Stress testing
Option C:	Security testing
Option D:	Integration testing
8.	re-execution of some subset of tests that have already been conducted to ensure that changes have not propagated unintended side effects in software system , what type testing apply this logic ?
Option A:	Integration testing
Option B:	Unit testing
Option C:	Regression testing
Option D:	System testing
9.	In organisation, process is defined for project development based on success/experience achieved from previous project , Identify CMM level of process ?
Option A:	Level 2
Option B:	Level 3

Option C:	level 4
Option D:	Level 1
10.	Which of the following is not ISO 9126 quality characteristic ?
Option A:	Functionality
Option B:	Reliability
Option C:	Immovability
Option D:	Efficiency
11.	The cost incurred in quality planning or training , is called as which type of quality cost ?
Option A:	Appraisal cost
Option B:	Prevention cost
Option C:	Failure cost
Option D:	Reserved cost
12.	Who is at highest level at hierarchy in testing group structure ?
Option A:	Test manager
Option B:	Test leader
Option C:	Junior test engineer
Option D:	Test engineer
13.	Calculating Unadjusted Function Point for given ILF =5 , EIF=3, EI=4, EO=6 & EQ=7 where functional level complexity is average.
Option A:	107
Option B:	145
Option C:	162
Option D:	120
14.	The project in which , there are 10 unique operators and total usage is 35, 20 unique operands and total usage is 45. find out the program length using Halstead metric ?
Option A:	30
Option B:	80
Option C:	56
Option D:	65
15.	When the test cases are prioritized on the basis of number of mutants of statement killed , such prioritization called as ?
Option A:	Total Statement Coverage Prioritization
Option B:	Additional Statement Coverage Prioritization
Option C:	Total Branch Coverage Prioritization
Option D:	Total Fault-Exposing-Potential Prioritization
16.	The Agile testing life cycle which spans through four stages, Which of the following activity falls under Construction Iteration stage ?
Option A:	Initiate the project
Option B:	Deliver the working system that meets the changing needs of stakeholders

Option C:	Deploy release
Option D:	Operate and support for released product
17.	Which of the following is not correct challenge in Web based software testing
Option A:	Diversity and Complexity
Option B:	Dynamic Environment
Option C:	No continuous evolution
Option D:	Compatibility and Interoperability
18.	Which of the following is tool for "Test execution and evaluation" ?
Option A:	Complexity analyser
Option B:	Test case generator
Option C:	Coverage analysis tools
Option D:	Tool for test schedule and staffing estimates
19.	When the testing tool is new to the testing team, the testing team productivity matched the expectations only after 3 months of testing on the particular tool. The time of 3 months is called as ?
Option A:	Required training time
Option B:	Automated script development time
Option C:	Learning curve for the tool
Option D:	Intrusive testing tool
20.	What is Advantage of Silenium IDE ?
Option A:	No support for iteration and conditional operators
Option B:	Test execution is fast as compared to Selenium RC
Option C:	Available in firefox
Option D:	Easy to use and understand

Q2	Solve any Two Questions out of Three 10 marks each
A	Explain Software Testing Methodology with neat diagram.
B	Consider the given graph and answer the following questions i) Represent the given graph in the form of a graph matrix. ii) Represent the given graph in the form of a connection matrix. iii) Find 2-link paths and 3-link paths for each node.

C	Explain Coverage-Based test case prioritization in detail.

Q3.	**Solve any Two Questions out of Three 10 marks each**
A	Explain procedural steps of how an issue is created in JIRA testing tool?
B	What is ISO 9000:2000 ? Explain ISO 9126 quality characteristics ?
C	List and explain the various challenges in testing Web based software system.