Module Name : MSc Computer Science-E
Exam Date : 19-Sep-2020 Batch : 16:00-18:00

Sr. No.	Client Question ID	Question Body and Alternatives	Marks	Negative Marks
Objective Question				
1	1	RAD model has _____ phases A1 : 6 A2 : 5 A3 : 4 A4 : 3	4.0	1.00
Objective Question				
2	2	Expand CMMI. A1 : Capability Maturity Model Integration A2 : Capability Model Maturity Integration A3 : Capability Maturity Model Instructions A4 : Capability Maturity Model Instructions	4.0	1.00
Objective Question				
3	3	Which one of the Software-end factors affecting maintenance Cost? A1 : Structure of Software Program A2 : Programming Language A3 : Dependence on external environment A4 : All of these	4.0	1.00
Objective Question				
4	4	Which is the most important feature of spiral model? A1 : Quality management	4.0	1.00

		A2 : Performance management A3 : Risk management A4 : Efficiency management		
Objective Question				
5	5	Knowledge of software program, design and structure is essential in _____? A1 : Blackbox Testing A2 : Whitebox Testing A3 : Integration Testing A4 : None of these	4.0	1.00
Objective Question				
6	6	Which one of the following is not a fundamental activity for software processes in software engineering? A1 : Software Verification A2 : Software Validation A3 : Software design and Implementation A4 : Software Evolution	4.0	1.00
Objective Question				
7	7	An effective risk management plan will need to address which one of the following issues? A1 : Risk Avoidance A2 : Risk Monitoring A3 : Contingency Planning A4 : All of these	4.0	1.00
Objective Question				
8	8	Line of code (LOC) can be used to normalize quality and/or productivity measure for _____ A1 Size oriented metrics	4.0	1.00

		: A2 : Function point metrics. A3 : Extended function point metrics A4 : All of these		
Objective Question				
9	9	In a time-sharing operating system, when the time slot given to a process is completed, the process goes from the running state to the _____ A1 : Blocked State A2 : Ready State A3 : Suspended State A4 : Terminated State	4.0	1.00
Objective Question				
10	10	When several processes access the same data concurrently and the outcome of the execution depends on the particular order in which the access takes place, is called? A1 : Dynamic Condition A2 : Race Condition A3 : Essential Condition A4 : Critical Condition	4.0	1.00
Objective Question				
11	11	The remote method invocation _____ A1 : Allows a process to invoke memory on a remote object A2 : Allows a thread to invoke a method on a remote object A3 : Allows a thread to invoke memory on a remote object A4 : Allows a process to invoke a method on a remote object	4.0	1.00

Objective Question				
12	12	Which of the following algorithms tends to minimize the process flow time? A1 : First Come First Served A2 : Shortest Job First A3 : Earliest Deadline First A4 : Longest Job First	4.0	1.00
Objective Question				
13	13	A minimum of _____ variable(s) is/are required to be shared between processes to solve the critical section problem. A1 : One A2 : Two A3 : Three A4 : Four	4.0	1.00
Objective Question				
14	14	Operating System maintains the page table for _____ A1 : Each Process A2 : Each Thread A3 : Each Instruction A4 : Each Address	4.0	1.00
Objective Question				
15	15	A multilevel page table is preferred in comparison to a single level page table for translating virtual address to physical address because _____ A1 : It Reduces the Memory Access Time to Read or Write a Memory Location A2 : It Helps to Reduce the Size of Page Table Needed to Implement the Virtual Address Space of a Process A3 : It is Required by the Translation Look Aside Buffer	4.0	1.00

		A4 : It Helps to Reduce the Number Of Page Faults in Page Replacement Algorithms		
Objective Question				
16	16	The interval from the time of submission of a process to the time of completion is termed as _____ A1 : Waiting Time A2 : Turnaround Time A3 : Response Time A4 : Throughput	4.0	1.00
Objective Question				
17	17	In C programming language, which of the following type of operations have the highest precedence A1 : Relational Operator A2 : Equality operators A3 : Arithmetic operators A4 : Logical operators	4.0	1.00
Objective Question				

18	18	The output of
		{
		int a = 5;
		int b = 10;
		cout << (a>b?a:b);
		}
		
		A1 : 5
		
		A2 : 10
		
		A3 : Syntax error
		
		A4 : None of these
			4.0	1.00

Objective Question				
19	19	Bitwise operators can operate upon? A1 double and chars	4.0	1.00

		: A2 : floats and doubles A3 : ints and floats A4 : ints and chars		
Objective Question				
20	20	Which of the following language feature is not an access specifier in C++? A1 : Public A2 : Private A3 : Protected A4 : internal	4.0	1.00
Objective Question				

21	21	In the following function:
		int f (int n) {
		int v;
		v = 2*n+1;
		return v;
		}
		What is the storage class of variable v?
		
		A1 :
		static
		
		A2 :
		dynamic
		
		A3 :
		contextual
		
		A4 :
		automatic
			4.0	1.00

Objective Question				

22	22	Consider the following statements:
		int *p;
		int i, k;
		i = 142;
		k = i;
		p = &i;
		Which of the following statements changes the value of i to 143 ?
		
		A1 :
		k = 143;
			4.0	1.00

		A2 : *k = 143; A3 : p = 143; A4 : *p = 143;		
Objective Question				

23	23	Consider this piece of code:
		void mysterious(int i, int &k) {
		i = 1;
		k = 2;
		}
		int main () {
		int x = 0;
		mysterious (x, x);
		cout << x << endl;
		return 0;
		}
		What is the value of x that gets printed by the main ?
		
		A1 : 0
		
		A2 : 1
		
		A3 : 2
		
		A4 : None of these
			4.0	1.00

Objective Question				

24	24	What is the value of k after the following code fragment?
		int k = 0;
		int n = 12
		while (k < n)
		{
		k = k + 1;
		}
		
		A1 : 0
		
		A2 : 11
			4.0	1.00

		A3 : 12 A4 : unknown		
Objective Question				

25	25	What will be the output of the following C++ code?
		#include<iostream>
		#include <fstream>
		using namespace std;
		int main ()
		{
		ofstream outfile ("test.txt");
		for (int n = 0; n < 100; n++)
		{
		outfile << n;
		outfile.flush();
		}
		cout << "Done";
		outfile.close();
		return 0;
		}
		
		A1 : Done
		
		A2 : Error
		
		A3 : Runtime error
		
		A4 : DoneDoneDone
			4.0	1.00

Objective Question				
26	26		4.0	1.00

		What is the output of the following code?
		#include
		void main()
		{
		int s=0;
		while(s++<10)>
		# define a 10
		main()
		{
		printf("%d..",a);
		foo();
		printf("%d",a);
		}
		void foo()
		{
		#undef a
		#define a 50
		}
		
		A1 : 10..10
		
		A2 : 10..50
		
		A3 : Error
		
		A4 : 0		

Objective Question				
27	27	Which of the following is not a property of transactions? A1 : Atomicity A2 : Concurrency A3 : Isolation A4 : Durability	4.0	1.00
Objective Question				
28	28	By default SQL server has _____ isolation level A1 : READ COMMITTED A2 : READ UNCOMMITTED A3 : SERIALIZABLE	4.0	1.00

		A4 : REPEATABLE READ		
Objective Question				
29	29	Table on the many side of a one to many or many to many relationship must: A1 : Be in Second Normal Form (2NF) A2 : Be in Third Normal Form (3NF) A3 : Have a single attribute key A4 : Have a composite key	4.0	1.00
Objective Question				
30	30	In _____ of Oracle, the database administrator creates a user account in the database for each user who needs access. A1 : Database Authentication A2 : Operating System Authentication A3 : Internal Authentication A4 : External Authentication	4.0	1.00
Objective Question				
31	31	Decision Nodes are represented by _____ A1 : Ellipse A2 : Dashed ellipse A3 : Rectangle A4 : Squares	4.0	1.00
Objective Question				
32	32	Which forms simplifies and ensures that there is minimal data aggregates and repetitive groups: A1 : 1NF A2 : 2NF	4.0	1.00

		A3 : 3NF A4 : All of these		
Objective Question				
33	33	A line of PL/SQL text contains groups of characters known as A1 : Lexical Units A2 : Literals A3 : Textual Units A4 : Identifiers	4.0	1.00
Objective Question				
34	34	_____ is a sequence of zero or more characters enclosed by single quotes. A1 : Integers literal A2 : String literal A3 : String units A4 : String label	4.0	1.00
Objective Question				
35	35	The navigator object is particularly used to determine what browser is being supported to _____ A1 : View a page A2 : View a website A3 : View a web browser A4 : None of these	4.0	1.00
Objective Question				
36	36	Which of the statements is/are true? I. PHP language provides you lot of security II. PHP enables you to write code using HTML and JavaScript to create a dynamic web site III. PHP is a server and client-side scripting language A1 Both I and II	4.0	1.00

		: A2 : both I and III A3 : I, II,and III A4 : None of these		
Objective Question				
37	37	The AJAX is used to control the _____ A1 : Functionality A2 : Code layout A3 : Ideology A4 : All of these	4.0	1.00
Objective Question				
38	38	Consider the following syntax: <MAP NAME = "World Map"> <Area Coords="0.0,100, 200" HREF=" homepage.html". </MAP> When would you use the above syntax? A1 : When defining an image map A2 : When referring back to home.html A3 : When referring to world map A4 : When embedding a graphic in JavaScript	4.0	1.00
Objective Question				
39	39	Which of the following statements is false regrading "cookies"? A1 : Cookies are programs A2 : Cookies have the potential of being used to violate the privacy of users A3 : Cookies are very helpful in keeping track of users in developing online shopping cart applications, personalized portals and in advertising on websites.	4.0	1.00

		A4 : Cookies cannot contain more than 4kb of data		
Objective Question				
40	40	HTML metadata includes_____ 1.a page description 2. Author 3. copy writer information A1 : 1,2 A2 : 2,3 A3 : 1,2,3 A4 : None of these	4.0	1.00
Objective Question				
41	41	Which of the following statements are incorrect regarding multimedia on the web? A1 : The MPEG, AIFF, and WAV are cross platform formats A2 : The MPED,AU and MIDI are cross-platform formats A3 : The SND format has a relatively low fidelity A4 : VRML can be used to model and display 3D interactive graphics	4.0	1.00
Objective Question				
42	42	Which of the following statements is/are true? P: An XML document with correct syntax as specified by W3C is called “Well Formed”. Q: An XML documented validated against a DTD is both “Well formed” and “valid”. R: <xml version=”1.0” encoding =” UTF-8”> is syntactically correct declaration for the version of an XML document. **Select the correct answer from the options given below:** A1 : P and Q only A2 : P and R only A3 : Q and R only A4 : All of P, Q and R	4.0	1.00
Objective Question				
43	43	Which of the following is NOT a method of calling functions	4.0	1.00

		A1 : Call By Value A2 : Call By Reference A3 : Recursion A4 : Regular Expression		
Objective Question				
44	44	Identify the odd item A1 : sizeof A2 : ! A3 : ++ A4 : *	4.0	1.00
Objective Question				
45	45	Identify the type of inheritance shown in the following code snippet *class allrounder : public batsman, public bowler* A1 : Hierarchical A2 : Multilevel A3 : Multiple A4 : General	4.0	1.00
Objective Question				
46	46	GCC stands for A1 : GNU Compiler Collection A2 : General Class Compiler A3 : Great Compiler for C A4 : Goal of C Compiler	4.0	1.00

Objective Question				

47	47	#include<iostream>
		using namespace std;
		int x = 1;
		int main()
		{
		int x = 2;
		{
		int x = 3;
		cout << ::x << endl;
		}
		return 0;
		}
		
		A1 : 1
		
		A2 : 2
		
		A3 : 3
		
		A4 : 123
			4.0	1.00

Objective Question				

48	48	#include<iostream>
		using namespace std;
		class A
		{
		~A(){
		cout<<"Destructor called\n";
		}
		};
		int main()
		{
		A a;
		return 0;
		}
		
		A1 : Destructor called
		
		A2 : Nothing will be printed
		
		A3 Error
			4.0	1.00

		: A4 : Segmentation fault		
Objective Question				

49	49	#include<iostream>
		using namespace std;
		int x[100];
		int main()
		{
		cout << x[99] << endl;
		}
		
		A1 :
		Garbage value
		
		A2 :
		0
		
		A3 :
		99
		
		A4 :
		Error
			4.0	1.00

Objective Question				
50	50	Which of the following is accessed by a member function of a class? A1 : The object of that class A2 : All members of a class A3 : The public part of a class A4 : The private part of a class	4.0	1.00
Objective Question				
51	51	What is the size of a character literal in C and C++? A1 : 4 and 1 A2 : 1 and 4 A3 : 1 and 1 A4 : 4 and 4	4.0	1.00
Objective Question				

52	52	What is the size of a character type in C and C++? A1 : 4 and 1 A2 : 1 and 4 A3 : 1 and 1 A4 : 4 and 4	4.0	1.00
Objective Question				
53	53	Which one of the following is the tightest upper bound that represents the number of swapsrequired to sort n numbers using selection sort? A1 : O(log n) A2 : O(n) A3 : O(n log n) A4 : $O(n^2)$	4.0	1.00
Objective Question				
54	54	Worst case time complexity of linear search algorithm is _____. A1 : O(n) A2 : $O(n^2)$ A3 : $O(2n^2)$ A4 : O(2n)	4.0	1.00
Objective Question				
55	55	You have an array of n elements. Suppose you implement quicksort by always choosing the central element of the array as the pivot. Then the tightest upper bound for the worst case performance is A1 : $O(n^2)$ A2 : O(nLogn) A3 : Θ(nLogn) A4	4.0	1.00

		: $O(n^3)$		
Objective Question				
56	56	What is direct addressing? A1 : Distinct array position for every possible key A2 : Fewer array positions than keys A3 : Fewer keys than array positions A4 : Both b and c based on datatypes	4.0	1.00
Objective Question				
57	57	Which of the following standard algorithms is not a Greedy algorithm? A1 : Dijkstra's shortest path algorithm A2 : Prim's algorithm A3 : Kruskal algorithm A4 : Bellmen Ford Shortest path algorithm	4.0	1.00
Objective Question				
58	58	Consider the problem of searching an element x in an array 'arr[]' of size n. The problem can be solved in O(Logn) time if. 1) Array is sorted. 2) Array is sorted and rotated by k. k is given to you and k <= n. 3) Array is sorted and rotated by k. k is NOT given to you and k <= n. 4) Array is not sorted. A1 : 1 Only A2 : 1 & 2 only A3 : 1, 2 and 3 only A4 : 1, 2, 3 and 4	4.0	1.00
Objective Question				
59	59	The number of elements that can be sorted in $\Theta(\log n)$ time using heap sort is A1 : $\Theta(1)$ A2	4.0	1.00

		: Θ(sqrt(logn)) A3 : Θ(Log n/(Log Log n)) A4 : Θ(Log n)		
Objective Question				

60	60	Consider the following function.
		int unknown(int n) {
		int i, j, k = 0;
		for (i = n/2; i <= n; i++)
		for (j = 2; j <= n; j = j * 2)
		k = k + n/2;
		return k;
		}
		
		A1 : Θ(n^2)
		
		A2 : Θ(n^2Logn)
		
		A3 : Θ(n^3)
		
		A4 : Θ(n^3Logn)
			4.0	1.00

Objective Question				
61	61	The only function of NOT gate is to A1 : Stop signal A2 : Invert input signal A3 : Act as a Universal Gate A4 : None of these	4.0	1.00
Objective Question				
62	62	An OR gate has 6 inputs. The number of input words in its truth table are A1 : 6 A2 : 32 A3 : 64	4.0	1.00

		A4 : 128		
Objective Question				
63	63	A deboucing circuit is A1 : An astable MV A2 : A bistable MV A3 : A latch A4 : A monostable MV	4.0	1.00
Objective Question				
64	64	NAND gates are preferred over others because these A1 : Have lower fabrication area A2 : Can be used to make any gate A3 : Consume least electronic power A4 : Provide maximum density in a Chip	4.0	1.00
Objective Question				
65	65	Excess-3 code is known as A1 : Weighted code A2 : Cyclic Redundancy Code A3 : Self-Complementing Code A4 : Algebraic Code	4.0	1.00
Objective Question				
66	66	Assuming 8 bits for data, 1 bit parity, I start bit and 2 stop bits, the number of Characters that 1200 BPS communication line can transmit is. A1 : 10 CPS. A2 : 120 CPS.	4.0	1.00

		A3: 12 CPS. A4: None of these		
Objective Question				
67	67	An AND gate will function as OR if A1: All the inputs to the gates are “1” A2: All the inputs are “0” A3: Either of the inputs is “1” A4: All the inputs and outputs are complemented	4.0	1.00
Objective Question				
68	68	Which is the correct order of sequence for representing the input values in K-map? A1: (00,01,10,11) A2: (00,10,01,11) A3: (00,01,11,10) A4: (00,10,11,01)	4.0	1.00
Objective Question				
69	69	An n-bit microprocessor has A1: n-bit program counter A2: n-bit address register A3: n-bit ALU A4: n-bit instruction register	4.0	1.00
Objective Question				
70	70	‘Aging registers’ are A1: Counters which indicate how long ago their associated pages have been referenced. A2 Registers which keep track of when the program was last accessed.	4.0	1.00

		: A3 : Counters to keep track of last accessed instruction. A4 : Counters to keep track of the latest data structures referred.		
Objective Question				
71	71	The instruction ‘ORG O’ is a A1 : Machine Instruction. A2 : Pseudo instruction. A3 : High level instruction. A4 : Memory instruction.	4.0	1.00
Objective Question				
72	72	MIMD stands for A1 : Multiple instruction multiple data A2 : Multiple instruction memory data A3 : Memory instruction multiple data A4 : Multiple information memory data	4.0	1.00
Objective Question				
73	73	The load instruction is mostly used to designate a transfer from memory to a processor registerknown as A1 : Accumulator A2 : Instruction Register A3 : Program counter A4 : Memory address Register	4.0	1.00
Objective Question				
74	74	The communication between the components in a microcomputer takes place via the addressand A1 : I/O bus	4.0	1.00

		A2 : Data bus A3 : Address bus A4 : Control lines		
Objective Question				
75	75	MRI indicates A1 : Memory Reference Information. A2 : Memory Reference Instruction. A3 : Memory Registers Instruction. A4 : Memory Register information	4.0	1.00
Objective Question				
76	76	In a vectored interrupt A1 : the branch address is assigned to a fixed location in memory. A2 : the interrupting source supplies the branch information to the processor through an interrupt vector. A3 : the branch address is obtained from a register in the processor A4 : the branch address is obtained from cache memory	4.0	1.00
Objective Question				
77	77	In segmentation, each address is specified by _____ A1 : A Segment Number & Offset A2 : An Offset & Value A3 : A Value & Segment Number A4 : A Key & Value	4.0	1.00
Objective Question				
78	78	What is right way to Initialization array?	4.0	1.00

		A1 : int num[6] = { 2, 4, 12, 5, 45, 5 } A2 : int n{} = { 2, 4, 12, 5, 45, 5 } A3 : int n{6} = { 2, 4, 12 } A4 : int n(6) = { 2, 4 }		
Objective Question				
79	79	What is the work of break keyword? A1 : Halt execution of program A2 : Restart execution of program A3 : Exit from loop or switch statement A4 : None of these	4.0	1.00
Objective Question				
80	80	What will happen if in a C program you assign a value to an array element whose subscript exceeds the size of array? A1 : The element will be set to 0. A2 : The compiler would report an error. A3 : The program may crash if some important data gets overwritten. A4 : The array size would appropriately grow.	4.0	1.00
Objective Question				
81	81	When class B is inherited from class A, what is the order in which the constructers of those classes are called A1 : Class A first Class B next A2 : Class B first Class A next A3 : Class B's only as it is the child class A4 : Class A's only as it is the parent class	4.0	1.00
Objective Question				

82	82	The output of this program
		int a = 10;
		void main()
		{
		int a = 20;
		cout << a << ::a;
		}
		
		A1 : Syntax error
		
		A2 : 10 20
		
		A3 : 20 10
		
		A4 : 20 20
			4.0	1.00

Objective Question				

83	83	What is the output of this program?
		#include
		using namespace std;
		int main()
		{
		int a;
		a = 5 + 3 * 5;
		cout << a;
		return 0;
		}
		
		A1 : 35
		
		A2 : 20
		
		A3 : 25
		
		A4 : 30
			4.0	1.00

Objective Question				
84	84		4.0	1.00

What will be output if you will compile and execute the following C code?

```
void main()
{static main;
int x;
x=call(main);
clrscr();
printf("%d ",x);
getch();}
int call(int address){
address
s++;
return address;
}
```

A1: 0

A2: 1

A3: Garbage value

A4: Compiler error

Objective Question				

85	85	What will be the output of the following C code?
		`#include <stdio.h>`
		`struct temp`
		`{int a;`
		`} s;`
		`void change(struct temp);`
		`main()`
		`{`
		`s.a = 10;`
		`change(s);`
		`printf("%d\n", s.a);`
		`}`
		`void change(struct temp s)`
		`{`
		`s.a = 1;`
		`}`
		
		A1: Output will be 1
		
		A2: Output will be 10
		
		A3: Output varies with machine
		
		A4: Output will be compile time error
			4.0	1.00

Objective Question				
86	86	DSL telcos provide which of the following services? A1 : Wired phone access A2 : ISP A3 : Wired phone access and ISP A4 : Network routing and ISP	4.0	1.00
Objective Question				
87	87	The assembler directives which are the hints using some predefined alphabetical strings are given to A1 : processor A2 : memory A3 : assembler A4 : processor & assembler	4.0	1.00
Objective Question				
88	88	Which of the following is right? A1 : A Context free language can be accepted by a deterministic PDA A2 : union of 2 CFLs is context free A3 : The intersection of two CFLs is context free A4 : The complement of CFLs is context free	4.0	1.00
Objective Question				
89	89	Let L denotes the language generated by the grammar S – OSO/00. Which of the following is true? A1 : L = O A2 : L is regular but not O A3 : L is context free but not regular	4.0	1.00

		A4 : L is not context free		
Objective Question				
90	90	Which of the following genres does Hadoop produce? A1 : Distributed file system A2 : JAX-RS A3 : Java Message Service A4 : Relational Database Management System	4.0	1.00
Objective Question				
91	91	Choose the recursive formula for the Fibonacci series.(n>=1) A1 : F(n) = F(n+1) + F(n+2) A2 : F(n) = F(n) + F(n+1) A3 : F(n) = F(n-1) + F(n-2) A4 : F(n) = F(n-1) – F(n-2)	4.0	1.00
Objective Question				
92	92	Who manages the effects of change throughout the software process? A1 : Software project tracking and control A2 : Software configuration management A3 : Measurement A4 : Technical review	4.0	1.00
Objective Question				
93	93	Expand COCOMO A1 : COnstructive COst MOdel A2 : COmposition COst MOdel A3 COmmon COntrol MOdel	4.0	1.00

		: A4 : COnsumed COst MOde		
Objective Question				
94	94	Which one of the following is not suitable for accommodating change? A1 : Buid & Fix Models A2 : Prototyping Model A3 : RAD Model A4 : Waterfall Model	4.0	1.00
Objective Question				
95	95	Requirement engineering process includes which of these steps? A1 : Feasibility study A2 : Requirement Gathering A3 : Software Requirement specification & Validation A4 : All of these	4.0	1.00
Objective Question				
96	96	RUP stands for _____ created by a division of _____ A1 : Rational Unified Program, IBM A2 : Rational Unified Process, Infosys A3 : Rational Unified Process, IBM A4 : Rational Unified Program , Infosys	4.0	1.00
Objective Question				
97	97	Which one of these activities is not recommended to be performed by an independent SQA group? A1 : Software configuration management procedures A2 : The tools and methods that support SQA actions and tasks	4.0	1.00

		A3 : Organizational roles and responsibilities relative to product quality A4 : Serve as the sole test team for any software produced		
Objective Question				
98	98	Which of the following does not interrupt a running process? A1 : A Device A2 : Timer A3 : Scheduler Process A4 : Power Failure	4.0	1.00
Objective Question				
99	99	RPC provides a(an) _____ on the client side, a separate one for each remote procedure. A1 : Stub A2 : Identifier A3 : Name A4 : Process Identifier	4.0	1.00
Objective Question				
100	100	The address of a page table in memory is pointed by _____ A1 : Stack Pointer A2 : Page Table Base Register A3 : Page Register A4 : Program Counter	4.0	1.00