Notations :

1. Options shown in green color and with ✔ icon are correct.

2. Options shown in red color and with ✖ icon are incorrect.

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Subject Name:	Computer Science
Creation Date:	2017-06-07 16:57:01
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Calculator:	Scientific
Magnifying Glass Required?:	No
Ruler Required?:	No
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Scratch Pad Required?:	No
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Protractor Required?:	No

Computer Science

Group Number :	1
Group Id :	798407159
Group Maximum Duration :	0
Group Minimum Duration :	150
Revisit allowed for view? :	No
Revisit allowed for edit? :	No
Break time:	0
Group Marks:	300

Computer Science

Section Id :	798407159
Section Number :	1
Section type :	Online
Mandatory or Optional:	Mandatory
Number of Questions:	150
Number of Questions to be attempted:	150
Section Marks:	300
Display Number Panel:	Yes
Group All Questions:	No

Sub-Section Number:	1
Sub-Section Id:	798407195
Question Shuffling Allowed :	Yes

Question Number : 1 Question Id : 79840723737 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct : 2 Wrong : 0.66

The minimum number of edges of a graph containing n vertices and c connected components is

Options :

1. ✔ n-c

2. ✖ c

3. ✖ c(n-1)

4. ✖ n/c

Question Number : 2 Question Id : 79840723738 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct : 2 Wrong : 0.66

In first order predicate logic, $\sim \forall x\, P(x)$ is equivalent to

Options :

1. ✖ $\sim \exists x\, P(x)$

2. ✔ $\exists x \sim P(x)$

3. ✖ $\forall x \sim P(x)$

4. ✖ the given expression is not a well formed formula

Question Number : 3 Question Id : 79840723739 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct : 2 Wrong : 0.66

How many different 6-member committees can be formed from 6 men and 4 women with a restriction that each committee should include equal number of men and women

Options :

1. ✖ 120

2. ✔ 80

3. ✖ 420

4. ✖ 60

Question Number : 4 Question Id : 79840723740 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct : 2 Wrong : 0.66

Consider 4-character long codes generated by using an alphabet consisting of 8-characters with no restriction on the number of repetitions of a character in a code. How many codes have at least one character repeated?

Options :

1. ✔ 2416

2. ✖ 6720

3. ✖ 1680

4. ✖ 4096

Question Number : 5 Question Id : 79840723741 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct : 2 Wrong : 0.66

How many distinct Boolean functions can be formed from 'n' Boolean variables?

Options :

1. ✖ n^2

2. ✖ $2n^2$

3. ✖ 2n

4. ✔ 2 to the power of 2^n

Question Number : 6 Question Id : 79840723742 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct : 2 Wrong : 0.66

In order for a function to be invertible, it should be _____

Options :

1. ✖ one-one

2. ✖ onto

3. ✔ both one-one and onto

4. ✖ into

Question Number : 7 Question Id : 79840723743 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct : 2 Wrong : 0.66

What is the maximum value of the function $f(x) = x^2 - 3x + 5$ in the interval $[0,5]$?

Options :

1. ✔ 15

2. ✖ 5

3. ✖ 3

4. ✖ 9

Question Number : 8 Question Id : 79840723744 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct : 2 Wrong : 0.66

In an IT company, given that the probability of finding an employee with programming skills is 0.7, documentation skills is 0.6, and if the probability of finding an employee with either of the skills is 0.9, then what is the probability of finding an employee with both the skills?

Options :

1. ✖ 0.42

2. ✖ 0.5

3. ✔ 0.4

4. ✖ 0.8

Question Number : 9 Question Id : 79840723745 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct : 2 Wrong : 0.66

Let A,B and C are finite sets. Which of the following options is TRUE, if $X = ((A \cap B) - (B \cap C))$ and $Y = (A - (A \cap C)) - (A - B)$?

Options :

1. ✖ $X \subset Y$

2. ✖ $X \supset Y$

3. ✔ X=Y

4. ✖ $X - Y \neq \varphi$ and $Y - X \neq \varphi$

Question Number : 10 Question Id : 79840723746 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct : 2 Wrong : 0.66

Which of the following options is TRUE with regard to a relation R defined on ordered pairs of integers as given below: (x,y) R (low,up) if x>low and y<up ?

Options :

1. ✖ R is totally ordered

2. ✖ R is partially ordered but not totally ordered

3. ✖ R is an equivalence relation

4. ✔ R is neither partially ordered nor an equivalence relation

Question Number : 11 Question Id : 79840723747 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct : 2 Wrong : 0.66

The Hasse diagram representing a lattice, P when turned upside-down represents the poset, Q. Poset Q is a ____

Options :

1. ✖ dual of P

2. ✖ Greatest Upper Bound of P

3. ✖ Lattice

4. ✔ dual of P and Lattice

Question Number : 12 Question Id : 79840723748 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct : 2 Wrong : 0.66

A pair of dice is tossed twice. What is the probability of scoring 9 at least in one of the two times?

Options :

1. ✖ 16/81

2. ✔ 17/81

3. ✖ 1/36

4. ✖ 64/81

Question Number : 13 Question Id : 79840723749 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct : 2 Wrong : 0.66

Which of the following probability distributions is applicable to consider the problem of estimating the probability of exactly two defective items manufactured in an industry in a batch of 20 items, if the probability of manufacture defect is 0.1?

Options :

1. ✖ Poisson distribution

2. ✔ Binomial distribution

3. ✖ Uniform distribution

4. ✖ Gaussian distribution

Question Number : 14 Question Id : 79840723750 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct : 2 Wrong : 0.66

The propositional expression $[(\sim P \text{ v } Q) \to (Q \to P)]$ is

Options :

1. ✖ a tautology

2. ✔ not a tautology

3. ✖ contradiction

4. ✖ not a well-formed formula

Question Number : 15 Question Id : 79840723751 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct : 2 Wrong : 0.66

The maximum number of non-zero elements of a n x n matrix whose *th element is equal to 0 for all i<j is*

Options :

1. ✖ n(n−1)/2

2. ✔ n(n+1)/2

3. ✖ n²

4. ✖ n

Question Number : 16 Question Id : 79840723752 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct : 2 Wrong : 0.66

At a given moment a queue contains stored in it. If the capacity of the queue is 6 then which of the following sequence of operations results in a modified queue contents ?

Options :

1. ✔ delete a,b;and insert e,a,f;

2. ✖ insert e,a,f and delete a,b

3. ✖ insert e, delete b and insert f

4. ✖ insert e,f, move a to place it between e and f, then delete b

Question Number : 17 Question Id : 79840723753 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct : 2 Wrong : 0.66

The value of the postfix expression abc*de+/− where a=20, b=3, c=4, d=1 and e=5 is

Options :

1. ✖ 134

2. ✖ −22

3. ✖ 48

4. ✔ 18

Question Number : 18 Question Id : 79840723754 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct : 2 Wrong : 0.66

Consider optimal implementation of two stacks growing in opposite directions in a single array A[n]. If t1 and t2 denote the stack pointers, which of the following, checks for stack full condition?

Options :

1. ✖ t2=(n−1) or t1=(n−1)

2. ✖ t1=n/2 or t2=(n−1)

3. ✖ t1=0 and t2=(n−1)

4. ✔ t2=t1+1

Question Number : 19 Question Id : 79840723755 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct : 2 Wrong : 0.66

Which of the following types of the linked list is fastest to delete a node pointed by 'p' from a large collection of nodes constituting the list?

Options :

1. ✔ doubly linked list

2. ✖ singly linked list

3. ✖ singly linked circular list

4. * singly linked list with header node

Question Number : 20 Question Id : 79840723756 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct : 2 Wrong : 0.66

Singly linked circular list with header pointing to the last node is the data structure preferred in the context of

Options :

1. * insertion of a node at a position 'p'

2. * deletion of a node pointed by 'p'

3. * reversing the order of the nodes in the list

4. ✔ concatenating two lists into one list

Question Number : 21 Question Id : 79840723757 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct : 2 Wrong : 0.66

If the inorder and preorder sequence of nodes of a binary tree are CABDFEHG and DCBAGEFH respectively, then the post order sequence is

Options :

1. * ABCDEFGH

2. * HFEGABCD

3. ✔ ABCFHEGD

4. * AFHBECGD

Question Number : 22 Question Id : 79840723758 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct : 2 Wrong : 0.66

Construct a Max-heap dynamically to accommodate a stream of eight integers, 48,34,68,32,19,25,61,53 as a descending priority queue. The leaf node that is farthest from the root is ___

Options :

1. * 19

2. * 68

3. * 48

4. ✔ 32

Question Number : 23 Question Id : 79840723759 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct : 2 Wrong : 0.66

Which of the following algorithms is fastest to find shortest path from a source node to a destination node in an un-weighted connected graph?

Options :

1. * Warshall's algorithm

2. * Floyd's algorithm

3. ✔ Breadth First Traversal

4. * Depth First Traversal

Question Number : 24 Question Id : 79840723760 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct : 2 Wrong : 0.66

Which of the following algorithms doesn't require Priority queue for its implementation?

Options :

1. * Kruskal's algorithm

2. ✖ Prim's algorithm

3. ✖ Huffman code generation algorithm

4. ✔ Warshall's algorithm

Question Number : 25 Question Id : 79840723761 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct : 2 Wrong : 0.66

Consider a large disk file containing records each of considerable size and an identification key. Which of the following methods is suitable to organize the file for faster access to a record given its key?

Options :

1. ✔ Apply Keysorting and maintain an index to the randomly ordered disk file

2. ✖ Sort the records of the disk file using Merge sort

3. ✖ Sort the records of the disk file using Quick sort

4. ✖ Apply keysorting and accordingly sort the records of the disk file

Question Number : 26 Question Id : 79840723762 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct : 2 Wrong : 0.66

Which of the following is preferred to organize very large indexed sequential access disk files used for both interactive random access and co-sequential batch processing of its records?

Options :

1. ✖ Hashing

2. ✖ B-Trees

3. ✖ Simple Index

4. ✔ B+ Trees

Question Number : 27 Question Id : 79840723763 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct : 2 Wrong : 0.66

Which of the following probability distribution functions is used to predict the number of collisions in terms of packing density of a Hash table?

Options :

1. ✖ Gaussian distribution

2. ✔ Poisson distribution

3. ✖ Uniform distribution

4. ✖ Binomial distribution

Question Number : 28 Question Id : 79840723764 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct : 2 Wrong : 0.66

The best case time complexity of insertion sort algorithm is ___

Options :

1. ✔ O(n)

2. ✖ O(1)

3. ✖ O(n²)

4. ✖ O(n log n)

Question Number : 29 Question Id : 79840723765 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct : 2 Wrong : 0.66

Which of the following is NOT used for time complexity estimation of an algorithm?

Options :

1. ✖ L Hopital Rule

2. ✖ Method of Backward Substitution

3. ✖ Master's theorem

4. ✔ Composite Trapezoidal Rule

Question Number : 30 Question Id : 79840723766 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct : 2 Wrong : 0.66

Which type of algorithm design strategy is used in Quick-hull algorithm to find the smallest convex polygon that contains 'n' given points in a plane?

Options :

1. ✖ Greedy Approach

2. ✔ Divide and Conquer approach

3. ✖ Dynamic programming

4. ✖ Transform and Conquer approach

Question Number : 31 Question Id : 79840723767 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct : 2 Wrong : 0.66

Applying Gaussian Elimination method for solving linear equations is an example of ____

Options :

1. ✖ Dynamic programming

2. ✖ Greedy approach

3. ✔ Transform and Conquer approach

4. ✖ Divide and Conquer approach

Question Number : 32 Question Id : 79840723768 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct : 2 Wrong : 0.66

Time complexity of an algorithm whose recurrence equation is $T(n)=4T(n/2) + n^2$ and $T(1)=1$ is expressed as ---

Options :

1. ✖ $\Box(n^2)$

2. ✔ $\Box(n^2 \log n)$

3. ✖ $\Box(n^3)$

4. ✖ $\Box(n \log n)$

Question Number : 33 Question Id : 79840723769 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct : 2 Wrong : 0.66

Twice-around the spanning tree algorithm for solving the Travelling Salesman Problem with Euclidean distances is a _____

Options :

1. ✔ 2-approximation algorithm

2. ✖ 1.5 approximation algorithm

3. ✖ 1.25 approximation algorithm

4. ✖ 2.5 approximation algorithm

Question Number : 34 Question Id : 79840723770 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct : 2 Wrong : 0.66

Which of the following problems belong to the class of NP - Complete problems?

Options :

1. ✖ Knapsack Problem
2. ✔ Hamiltonian Circuit problem
3. ✖ Eulerian Circuit Problem
4. ✖ Graph Coloring problem

Question Number : 35 Question Id : 79840723771 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct : 2 Wrong : 0.66

Which of the following sorting algorithms has the worst case time complexity of O(n log n)?

Options :

1. ✔ Merge sort
2. ✖ Quick sort
3. ✖ Bubble sort
4. ✖ Radix sort

Question Number : 36 Question Id : 79840723772 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct : 2 Wrong : 0.66

Which of the following sorting algorithms does in-place sorting with minimal space overhead?

Options :

1. ✖ Merge sort
2. ✖ Radix sort
3. ✔ Heap sort
4. ✖ Address Calculation Sort

Question Number : 37 Question Id : 79840723773 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct : 2 Wrong : 0.66

The principle of replacing a function irrespective of the context is called _____

Options :

1. ✖ Static binding
2. ✔ referential transparency
3. ✖ orthoganality
4. ✖ locality of reference

Question Number : 38 Question Id : 79840723774 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct : 2 Wrong : 0.66

Which of the following predicate expressions represent the statement "None of the students have failed in the test"?

Options :

1. ✖ $\sim\exists x\ (Student(x) \wedge \sim Failed(x))$
2. ✖ $\sim\forall x\ (\sim Student(x) \wedge \sim Failed(x))$
3. ✖ $\forall x\ (\sim Student(x) \wedge Failed(x))$
4. ✔ $\sim\exists x\ (Student(x) \wedge Failed(x))$

Question Number : 39 Question Id : 79840723775 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct : 2 Wrong : 0.66

The left hand side of an assignment statement should have _____

Options :

1. ✖ r-value

2. ✔ l-value

3. ✖ both r-value and l-value

4. ✖ either l-value or r-value

Question Number : 40 Question Id : 79840723776 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct : 2 Wrong : 0.66

What will be the final value of variable 'A' after executing the following pseudo code fragment?
A=-6
B=10
If (A>B) then if(A<0) then A=A * B
Else A=2*A

Options :

1. ✖ 36

2. ✖ -12

3. ✔ -6

4. ✖ 10

Question Number : 41 Question Id : 79840723777 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct : 2 Wrong : 0.66

The high level computer language PROLOG is categorized as ____

Options :

1. ✖ Functional language

2. ✖ Object oriented language

3. ✔ Logic programming Language

4. ✖ Scripting language

Question Number : 42 Question Id : 79840723778 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct : 2 Wrong : 0.66

Consider a language with following operations for string manipulation:
car(s) returns the first character of string 's'.
cdr(s) returns the suffix of 's' excluding the first character.
concat(s1,s2) returns the concatenation of s1 and s1.
Which of the following is the output of concat(car(s), car(cdr(cdr(s)))) if string s = "PQRS"?

Options :

1. ✔ PR

2. ✖ PRS

3. ✖ RSP

4. ✖ PQ

Question Number : 43 Question Id : 79840723779 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct : 2 Wrong : 0.66

What is printed by the following C program segment?
```
int a=40, b=25;
printf("%d", a=b);
```

Options :

1. ✔ 25

2. ✖ 40

3. ✖ 0

4. ✖ Error message

Question Number : 44 Question Id : 79840723780 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct : 2 Wrong : 0.66

Which combination of the integer variables a, b, and c makes the nested conditional expression ((a>b)?((a>c)?a: c):((b>c)?b:c)) evaluated to a value 10?

Options :

1. ✖ a=6, b=12, c=10

2. ✖ a=12, b=10, c=6

3. ✔ a=6, b=10, c=8

4. ✖ a=12, b=8, c=6

Question Number : 45 Question Id : 79840723781 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct : 2 Wrong : 0.66

Consider the following declaration statement followed by the two assignment statement in 'C'. What will be printed by this code segment?
```
int a, *b=&a, **c=&b;
a=14;
**c=20;
printf("%d", a);
```

Options :

1. ✖ prints 14

2. ✔ prints 20

3. ✖ prints the address of b

4. ✖ 34

Question Number : 46 Question Id : 79840723782 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct : 2 Wrong : 0.66

Which of the following is NOT a type of constructor

Options :

1. ✖ Copy constructor

2. ✔ Friend constructor

3. ✖ Default constructor

4. ✖ Parameterized constructor

Question Number : 47 Question Id : 79840723783 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct : 2 Wrong : 0.66

Which one of the following CAN NOT be a friend

Options :

1. ✖ function

2. ✖ class

3. ✔ object

4. ✖ operator function

Question Number : 48 Question Id : 79840723784 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct : 2 Wrong : 0.66

What should be the name of the constructor

Options :

1. ✖ same as object

2. ✖ same as member

3. ✔ same as class

4. ✖ same as function

Question Number : 49 Question Id : 79840723785 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct : 2 Wrong : 0.66

What is the output of the following program:
```
#include
class sample
{
private: int a,b;
public: void test()
{
a = 100;
b= 200;
}
friend int compute (sample e1);
};
int compute ( sample e1)
{
return int(e1.a+ e1.b)-5;
}
main()
{
Sample e;
e.test( );
cout<<compute(e);
}
```

Options :

1. ✖ 205

2. ✖ 300

3. ✔ 295

4. ✖ error

Question Number : 50 Question Id : 79840723786 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct : 2 Wrong : 0.66

Which of the following approach is generally adopted by C++ programming.

Options :

1. ✖ Top-down

2. ✔ Bottom-up

3. ✖ Right-left

4. ✖ Left - right

Question Number : 51 Question Id : 79840723787 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct : 2 Wrong : 0.66

Which among the following is the correct way of declaring object of a class

Options :

1. ✔ classname objectname;

2. ✖ class classname objectname;

3. ✖ class classname obj objectname;

4. ✖ classname obj objectname

Question Number : 52 Question Id : 79840723788 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct : 2 Wrong : 0.66

How many objects can be created in a single class?

Options :

1. ✖ 1

2. ✖ 2

3. ✖ 3

4. ✔ as many as required

Question Number : 53 Question Id : 79840723789 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct : 2 Wrong : 0.66

Which of this process occur automatically by JAVA run time system?

Options :

1. ✔ Serialization

2. ✖ Garbage collection

3. ✖ File Filtering

4. ✖ All the given options

Question Number : 54 Question Id : 79840723790 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct : 2 Wrong : 0.66

The 'new' operator in JAVA

Options :

1. ✖ returns a pointer to a variable

2. ✖ creates a variable called new

3. ✔ obtains memory for a new variable

4. ✖ tells how much memory is available

Question Number : 55 Question Id : 79840723791 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct : 2 Wrong : 0.66

'this' keyword in JAVA is used to

Options :

1. ✔ refer to current class object

2. ✖ refer to static method of the class

3. ✖ refer to parent class object

4. ✖ refer to static variable of the class

Question Number : 56 Question Id : 79840723792 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct : 2 Wrong : 0.66

Which of the following digital components are used for 'odd' parity bit generation and checking in the process of transmission error detection?

Options :

1. ✖ gates required for parity generation differ from those required for parity checking

2. ✔ exclusive-OR gates

3. ✖ RS-flipflop

4. ✖ counters

Question Number : 57 Question Id : 79840723793 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct : 2 Wrong : 0.66

How many '1's are there in the result produced by 8-bit 2's complement addition of 29 and -46?

Options :

1. ✖ 2

2. ✔ 7

3. ✖ 3

4. ✖ 5

Question Number : 58 Question Id : 79840723794 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct : 2 Wrong : 0.66

The micro-operation that performs division of a signed binary integer by 2 is ____

Options :

1. ✖ logical shift right

2. ✖ logical shift left

3. ✔ arithmetic shift right

4. ✖ arithmetic shift left

Question Number : 59 Question Id : 79840723795 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct : 2 Wrong : 0.66

The number of full and half adders required to add 16- bit number is

Options :

1. ✖ 8 half adders , 8 full adders

2. ✔ 1 half adder , 15 full adders

3. ✖ 16 half adders, 0 full adders

4. ✖ 4 half adders, 12 full- adders

Question Number : 60 Question Id : 79840723796 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct : 2 Wrong : 0.66

The simplified SOP(Sum of Products) form of the boolean expression (P+Q'+R').(P+Q'+R).(P+Q+R') is

Options :

1. ✖ (P' . Q + R')

2. ✔ (P + Q'. R')

3. ✖ (P'.Q + R)

4. ✖ (P. Q + R)

Question Number : 61 Question Id : 79840723797 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct : 2 Wrong : 0.66

Consider the implementation of a Boolean function of 'n' variables using only one multiplexer and one inverter. The minimal specification of size of multiplexer required is _____

Options :

1. ✖ 2^n –input &1-output

2. ✖ 1-output & 2^n output

3. ✔ 2^{n-1} input &1 output

4. ✖ 2^{n+1} input &1 output

Question Number : 62 Question Id : 79840723798 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct : 2 Wrong : 0.66

How many 64Kx1RAM chips are required to provide a memory of size 256K bytes?

Options :

1. ✖ 8

2. ✖ 4

3. ✔ 32

4. ✖ 64

Question Number : 63 Question Id : 79840723799 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct : 2 Wrong : 0.66

Consider a hard disk containing 1000cylinders, 10 platters each with 2 recording surfaces and 63 sectors per track. What is the position of the sector whose 3-D disk address is 200,15,55> representing cylinder, surface, sector numbers respectively.

Options :

1. ✖ 3520

2. ✔ 253000

3. ✖ 50600

4. ✖ 250600

Question Number : 64 Question Id : 79840723800 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct : 2 Wrong : 0.66

When a cache memory is 30 times faster than main memory/RAM and cache hit ratio is 90%, the speed up gained using the cache is approximately _____

Options :

1. ✖ 10 times

2. ✔ 7.7 times

3. ✖ 2.7 times

4. ✖ 27times

Question Number : 65 Question Id : 79840723801 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct : 2 Wrong : 0.66

The addressing modes used in the machine instruction ADD X,Y is

Options :

1. ✔ Direct

2. ✖ Indirect

3. ✖ Immediate

4. ✖ Implied addressing

Question Number : 66 Question Id : 79840723802 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct : 2 Wrong : 0.66

Which of the following is NOT a method used for data transfer between peripherals and memory?

Options :

1. ✖ Programmed I/O

2. ✖ Interrupt initiated I/O

3. ✖ Direct Memory Access

4. ✔ Pipelining

Question Number : 67 Question Id : 79840723803 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct : 2 Wrong : 0.66

In asynchronous serial transfer of characters, which of the following ordered pair of bits represents the used as delimiters for every character.

Options :

1. ✔ 0,1>

2. ✖ (00,01>

3. ✖ 1,0>

4. ✖ 01,00>

Question Number : 68 Question Id : 79840723804 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct : 2 Wrong : 0.66

Which of the following options needs to be entered in order to add a value 20 to the shell variable, x?

Options :

1. ✖ $x=$x+20

2. ✔ let x=$x+20

3. ✖ let $x=$x+20

4. ✖ $x +=20

Question Number : 69 Question Id : 79840723805 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct : 2 Wrong : 0.66

Consider the file named 'file1'. In order to remove write permission to the owner and grant execute permission to others, which of the following UNIX commands is appropriate?

Options :

1. ✔ chmod u-w,o+x file1

2. ✖ chmod u-w,o-x file1

3. ✖ chperm u-w, o+e file1

4. ✖ chmod u-w,o+e file1

Question Number : 70 Question Id : 79840723806 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct : 2 Wrong : 0.66

The effect of executing the UNIX command 'sort -t \| +1 file1'is _____

Options :

1. ✖ sorts the lines of the file1 in ascending order and place | as delimiter

2. ✖ sorts the lines of the file1 in descending order and place | as delimiter

3. ✔ sorts the lines of the file1 in ascending order after skipping content upto | in each line

4. ✖ sorts the lines of the file1 in descending order after skipping content upto | in each line

Question Number : 71 Question Id : 79840723807 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct : 2 Wrong : 0.66

UNIX command used to compare the successive lines of file1 with the corresponding lines of file2 and output a 3-columnar report on lines unique to file1, file2 and common to both is ____

Options :

1. ✖ cmp file1 file2

2. ✔ comm file1 file2

3. ✖ diff file1 file2

4. ✖ comp file1 file2

Question Number : 72 Question Id : 79840723808 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct : 2 Wrong : 0.66

Which of the following features is the best to support JAVA application development distributed across a network of Java Virtual machines?

Options :

1. ✖ Remote Method Invocation (RMI)

2. ✖ Remote Procedure Calls (RPC)

3. ✔ Multicast sockets

4. ✖ Remote Method Invocation (RMI) or Remote Procedure Calls (RPC)

Question Number : 73 Question Id : 79840723809 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct : 2 Wrong : 0.66

Usage of semaphores for solving critical section problem sometimes result in busy waiting. Which of the following offers an effective remedy to avoid wastage of CPU cycles?

Options :

1. ✖ spinlock

2. ✔ block and wakeup(p)

3. ✖ atomic operator to- get and set

4. ✖ atomic operator to-swap the contents of two words

Question Number : 74 Question Id : 79840723810 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct : 2 Wrong : 0.66

74. Which of the following strategy is adopted to deal with deadlocks that have occured in operating system?

Options :

1. ✖ prevention

2. ✖ avoidance

3. ✔ detection and recovery

4. ✖ ignore the problem

**Question Number : 75 Question Id : 79840723811 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical**

Correct : 2 Wrong : 0.66

Which of the following methods is used to control thrashing in demand paging systems?

Options :

1. ✖ estimating process-wise demand for frames using working set model and limiting the total demand

2. ✖ controlling the page fault frequency within safe range by adjusting degree of multi-programming

3. ✖ Banker's Algorithm

4. ✔ estimating process-wise demand for frames using working set model and limiting the total demand and controlling the page fault frequency within safe range by adjusting degree of multi-programming but not Banker's Algorithm

**Question Number : 76 Question Id : 79840723812 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical**

Correct : 2 Wrong : 0.66

Which of the file directory structures support effective sharing of files?

Options :

1. ✖ Two-level directories

2. ✖ Tree-structured directories

3. ✔ acyclic graph directories

4. ✖ single -level directories

**Question Number : 77 Question Id : 79840723813 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical**

Correct : 2 Wrong : 0.66

Which of the following is a solution for external fragmentation of disk space during contiguous file allocation?

Options :

1. ✖ Dynamic storage allocation

2. ✔ Disk space compaction

3. ✖ File Allocation Table

4. ✖ garbage collection

**Question Number : 78 Question Id : 79840723814 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical**

Correct : 2 Wrong : 0.66

The above table depicts the CPU burst times required for the processes P1,P2,P3, and P4 which are in ready queue at a given moment. What is the average waiting time resulted with priority scheduling of CPU giving highest priority to level-1?

Process Id	Priority level	CPU Burst time
P1	2	10
P2	3	8
P3	1	12
P4	4	5

Options :

1. ✔ 16

2. ✖ 24.75

3. ✖ 25

4. ✖ 18

Question Number : 79 Question Id : 79840723815 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct : 2 Wrong : 0.66

Which of the following can be used to prevent improper authentication due to password exposure?

Options :

1. ✖ Trapdoor

2. ✔ One-Time Password

3. ✖ Trojan Horse

4. ✖ Anti-virus software

Question Number : 80 Question Id : 79840723816 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct : 2 Wrong : 0.66

Which of the following page replacement algorithms results in minimum page fault frequency for a given number of frames?

Options :

1. ✖ LRU page replacement

2. ✖ FIFO page replacement

3. ✔ Optimal page replacement

4. ✖ Enhanced second chance algorithm

Question Number : 81 Question Id : 79840723817 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct : 2 Wrong : 0.66

The network topology with highest reliability is _____

Options :

1. ✔ Mesh

2. ✖ Bus

3. ✖ Star

4. ✖ Ring

Question Number : 82 Question Id : 79840723818 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct : 2 Wrong : 0.66

In sliding window flow control for network traffic, if window size is 31 then the range of sequence numbers is _____

Options :

1. ✖ 1 to 32

2. ✔ 0 to 31

3. ✖ 1 to31

4. ✖ 0 to 30

Question Number : 83 Question Id : 79840723819 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct : 2 Wrong : 0.66

Repeaters are used in _____

Options :

1. ✖ Data link layer

2. ✔ Physical layer

3. ✖ Network layer

4. ✖ Session layer

Question Number : 84 Question Id : 79840723820 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct : 2 Wrong : 0.66

End to end connectivity is provided from host to host in the _____

Options :

1. ✖ Network layer

2. ✔ Transport layer

3. ✖ Session layer

4. ✖ Data link layer

Question Number : 85 Question Id : 79840723821 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct : 2 Wrong : 0.66

Encryption and decryption of data is performed in _____

Options :

1. ✔ Presentation layer

2. ✖ Physical layer

3. ✖ Data link layer

4. ✖ Session layer

Question Number : 86 Question Id : 79840723822 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct : 2 Wrong : 0.66

Which of the following uses UDP as the transport protocol?

Options :

1. ✖ HTTP

2. ✖ SMTP

3. ✔ DNS

4. ✖ Telnet

Question Number : 87 Question Id : 79840723823 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct : 2 Wrong : 0.66

How many ASCII characters can be transmitted per second over a 2400bps line if the transfer is asynchronous with start and stop bits in addition to parity bit with each character?

Options :

1. ✖ 300

2. ✔ 240

3. ✖ 340

4. ✖ 2400

Question Number : 88 Question Id : 79840723824 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct : 2 Wrong : 0.66

Which of the following refers to the feature of TCP that upon receiving a packet the receiver hooks the ACK to the next outgoing packet instead of sending ACK as a new packet?

Options :

1. ✔ piggybacking

2. ✖ multiplexing

3. ✖ bit sniffing

4. ✸   dialogue control

Question Number : 89 Question Id : 79840723825 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct : 2 Wrong : 0.66

In the slow start phase of the TCP congestion control algorithm, the size of the congestion window _____

Options :

1. ✸ doesn't increase significantly

2. ✸ increases linearly

3. ✸ increases quadratically

4. ✔ increases exponentially

Question Number : 90 Question Id : 79840723826 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct : 2 Wrong : 0.66

Which of the following is NOT a client server application?

Options :

1. ✔ ping

2. ✸ Internet chat

3. ✸ web browsing

4. ✸ e-mail

Question Number : 91 Question Id : 79840723827 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct : 2 Wrong : 0.66

Consider the probabilistic random routing for a packet switching network. Which of the following is its advantage over the other non-adaptive routing algorithms?

Options :

1. ✸ It finds the minimum hop route to destination

2. ✔ It provides good traffic distribution along the links

3. ✸ efficiently responds to traffic congestion and diverts the traffic accordingly

4. ✸ highly robust and is used to send emergency messages

Question Number : 92 Question Id : 79840723828 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct : 2 Wrong : 0.66

Match the following

P) Waterfall model   a) Specifications can be developed Incrementally
Q) Evolutionary model   b) Requirements compromises are inevitable
R) Component based model   c) Explicitly addressing the problem of Risk during development
S) Spiral Model   d) Inflexible partitioning of the Project into stages

Options :

1. ✸ P-a, Q-b, R-c, S-d

2. ✔ P-d, Q-a, R-b, S-c

3. ✸ P-d, Q-c, R-a, S-b

4. ✸ P-c, Q-a, R-b, S-d

Question Number : 93 Question Id : 79840723829 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct : 2 Wrong : 0.66

Consider module M, which is a serial integration of two sub-modules, A and B, having cyclomatic complexities of 10 and 8 respectively. What is the cyclomatic complexity of the integrated module M?

Options :

1. ✗ 19

2. ✔ 17

3. ✗ 20

4. ✗ 22

Question Number : 94 Question Id : 79840723830 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct : 2 Wrong : 0.66

Which of the following approaches is generally applied for module design phase while developing new software?

Options :

1. ✔ top-down approach

2. ✗ Bottom-up approach

3. ✗ centre fringing

4. ✗ depends on the size of software

Question Number : 95 Question Id : 79840723831 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct : 2 Wrong : 0.66

Let various levels of cohesion of software modules be denoted by C,T,S, and F as given below:
C: Coincidental F:Functional S:Sequential T:Temporal
Which of the following ordered tuples represents correct ordering from weakest to strongest level of cohesion?

Options :

1. ✗ <T,S,C,F>

2. ✔ <C,T,S,F>

3. ✗ <C,T,F,S>

4. ✗ <C,S,F,T>

Question Number : 96 Question Id : 79840723832 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct : 2 Wrong : 0.66

In the context of Object oriented software design, which of the following consequences of use of inheritance is disadvantageous?

Options :

1. ✔ increased coupling between classes

2. ✗ reusable code development

3. ✗ supports building class hierarchy

4. ✗ supports development of classes with less number of arguments and methods

Question Number : 97 Question Id : 79840723833 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct : 2 Wrong : 0.66

Which of the following software development process is not necessarily useful for developing software for automating an existing manual system for a client?

Options :

1. ✔ Prototyping

2. ✻ Iterative enhancement

3. ✻ Spiral model

4. ✻ Waterfall model

Question Number : 98 Question Id : 79840723834 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct : 2 Wrong : 0.66

Which of the following is NOT the characteristic of a good Software Requirement Specification?

Options :

1. ✻ completeness

2. ✻ verifiability

3. ✻ modifiability

4. ✔ short size of code

Question Number : 99 Question Id : 79840723835 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct : 2 Wrong : 0.66

Which of the following is NOT a recognized software project type under COCOMO model?

Options :

1. ✻ embedded

2. ✻ semidetached

3. ✔ detached

4. ✻ organic

Question Number : 100 Question Id : 79840723836 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct : 2 Wrong : 0.66

In software development, UML diagrams are used during _____

Options :

1. ✻ requirements analysis

2. ✻ system/module design

3. ✻ system integration

4. ✔ All the given options

Question Number : 101 Question Id : 79840723837 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct : 2 Wrong : 0.66

Which of the following techniques are used for selection of test cases during structural testing?

Options :

1. ✔ Data flow based testing

2. ✻ equivalence class partitioning

3. ✻ cause-effect graphing

4. ✻ boundary value analysis

Question Number : 102 Question Id : 79840723838 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct : 2 Wrong : 0.66

Which of the following metric represents the expected life time of a software system?

Options :

1. ✻ Failure probability

2. ✶ Failure density function

3. ✔ Mean time to failure

4. ✶ Hazard rate

Question Number : 103 Question Id : 79840723839 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct : 2 Wrong : 0.66

Which of the following operations are generally used for transforming plain text to cipher text?

Options :

1. ✶ substitution

2. ✶ transposition

3. ✔ substitution and transposition

4. ✶ normalisation

Question Number : 104 Question Id : 79840723840 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct : 2 Wrong : 0.66

With reference to network security across a packet switching network, which of the following provide the most effective solution?

Options :

1. ✶ End-to-end encryption

2. ✶ link encryption

3. ✔ combination of both link and end-to-end encryption

4. ✶ either link encryption or end-to end encryption but not both

Question Number : 105 Question Id : 79840723841 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct : 2 Wrong : 0.66

Consider the sequence of steps involved in the process of using digital signatures for a message in PGP; which of the following steps is WRONGLY presented?

Options :

1. ✶ SHA-1 is used to generate hash code of message

2. ✔ The hash code is prepended to the message and sent to the receiver

3. ✶ The receiver uses RSA with senders public key to decrypt and recover hash code

4. ✶ Receiver generates a new hash code for the message and compares with the recovered code and accept the message as authentic, if only, they match.

Question Number : 106 Question Id : 79840723842 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct : 2 Wrong : 0.66

Which of the following is a secret - key encryption algorithm?

Options :

1. ✶ RSA

2. ✶ Diffie-Hellman key exchange

3. ✔ Advanced Encryption Standard (AES)

4. ✶ Elliptic Curve Cryptography (ECC)

Question Number : 107 Question Id : 79840723843 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct : 2 Wrong : 0.66

Which of the following is NOT a type of firewall for network security?

Options :

1. ✖ circuit level gateways

2. ✖ application level gateways

3. ✖ packet filters

4. ✔ digital Immune System

Question Number : 108 Question Id : 79840723844 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct : 2 Wrong : 0.66

Which of the following CFG's can't be simulated by a Finte State Machine ?

Options :

1. ✖ S --> Sa | b

2. ✖ S --> aSb | ab

3. ✖ S --> abX, X --> cY, Y --> d | aX

4. ✔ None of the given options

Question Number : 109 Question Id : 79840723845 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct : 2 Wrong : 0.66

Consider the grammar with non-terminals N = {S,C,S1 }, terminals T ={a,b,i,t,e}, with S as the start symbol, and the following set of rules:

S --> $iCtSS_1$|a

S1 --> eS|□

C --> b

The grammar is NOT LL(1) because:

Options :

1. ✖ it is left recursive

2. ✖ it is right recursive

3. ✔ it is ambiguous

4. ✖ it is not context-free.

Question Number : 110 Question Id : 79840723846 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct : 2 Wrong : 0.66

Which of the following is true for the language {a^p| p is a prime]

Options :

1. ✖ It is not accepted by a Turing Machine

2. ✖ It is regular but not context-free

3. ✖ It is context-free but not regular

4. ✔ It is neither regular nor context-free, but accepted by Turing machine

Question Number : 111 Question Id : 79840723847 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct : 2 Wrong : 0.66

Which of the following pairs have DIFFERENT expressive power?

Options :

1. ✖ Deterministic finite automata(DFA) and Non-deterministic finite automata(NFA)

2. ✔ Deterministic push down automata(DPDA)and Non-deterministic push down automata(NPDA)

3. ✖ Deterministic single-tape Turing machine and Non-deterministic single-tape Turing machine

4. ✖ Single-tape Turing machine and multi-tape Turing machine

Question Number : 112 Question Id : 79840723848 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct : 2 Wrong : 0.66

The language L= $\{0^i 2 1^i \mid i \geq 0\}$ over the alphabet {0,1,2} is:

Options :

1. ✖ not recursive

2. ✔ is recursive and is a deterministic CFL

3. ✖ is a regular language

4. ✖ is not a deterministic CFL but a CFL.

Question Number : 113 Question Id : 79840723849 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct : 2 Wrong : 0.66

For the grammar below, a partial LL(1)   parsing table is also presented along with the grammar. Entries that need to be filled are indicated as E1, E2, and E3. If the empty string, $ indicates end of input, and, | separates alternate right hand sides of productions

    S->aAbB|bAaB|ε
    A->S
    B->S

	a	b	$
S	E1	E2	S->ε
A	A->S	A->S	error
B	B->S	B->S	E3

Options :

1. ✔ FIRST(A)={a,b,ε} =FIRST(B)

    FIRST(A) = {a,b,$}
    FOLLOW(A)={A,B}   FIRST(B) = {a,b, ε}
    FOLLOW(B) = {A,B,$}   FOLLOW(A) = {a,b}
                          FOLLOW(B) = {$}

2. ✖

3. ✖ FIRST(A) = {a,b, ε} = FIRST(B)

    FIRST(A) = {a,b}=FIRST(B)
    FOLLOW(A)={a,b}   FOLLOW(A)={a,b}

4. ✖

Question Number : 114 Question Id : 79840723850 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct : 2 Wrong : 0.66

Which of the following combinations of statements is TRUE?
I. There exist parsing algorithms for some programming languages whose complexities are less than $O(n^3)$.
II A programming language which allows recursion can be implemented with static storage allocation.
III. No L-attributed definition can be evaluated in the framework of bottom-up parsing
IV. Code improving transformations can be performed at both source language and intermediate code level.

Options :

1. ✖ I and II

2. ✔ I and IV

3. ✖ III and IV

4. ✖ I, III and IV

Question Number : 115 Question Id : 79840723851 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct : 2 Wrong : 0.66

Which one of the following is a top-down parser?

Options :

1. ✔ Recursive descent parser.

2. ✖ Operator precedence parser.

3. ✖ An LR(k) parser.

4. ✖ An LALR(k) parser

Question Number : 116 Question Id : 79840723852 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct : 2 Wrong : 0.66

In a bottom-up evaluation of a syntax directed definition, inherited attributes can

Options :

1. ✖ always be evaluated

2. ✔ be evaluated only if the definition is L--attributed

3. ✖ be evaluated only if the definition has synthesized attributes

4. ✖ never be evaluated

Question Number : 117 Question Id : 79840723853 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct : 2 Wrong : 0.66

Which one of the following is True at any valid state in shift-reduce parsing?

Options :

1. ✖ Viable prefixes appear only at the bottom of the stack and not inside

2. ✖ Viable prefixes appear only at the top of the stack and not inside

3. ✔ The stack contains only a set of viable prefixes

4. ✖ The stack never contains viable prefixes

Question Number : 118 Question Id : 79840723854 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct : 2 Wrong : 0.66

Emp (eid: integer, ename: string, age: integer, salary: real)
Works (eid: integer, did: integer, pct time: integer)
Dept (did: integer, budget: real, managerid: integer)
CREATE VIEW AvgSalaryByAge (age, avgSalary) AS SELECT E.eid, AVG (E.salary) FROM Emp E GROUP BY E.age.

Options :

1. ✖ The above view cannot be updated automatically .

2. ✖ The above view on Emp can be updated automatically by updating Emp.

3. ✖ The above view cannot be created automatically.

4. ✔ None of the given options

Question Number : 119 Question Id : 79840723855 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct : 2 Wrong : 0.66

Consider a schedule generated by the execution of several SQL transactions, each of which has READ ONLY access-mode. Which of the following is guaranteed?

Options :

1. ✖ conflict-serializable

2. ✔ serializable

3. ✖ recoverable

4. ✖ All the given options

Question Number : 120 Question Id : 79840723856 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct : 2 Wrong : 0.66

For a database Relation R (A,B,C,D) where the domains of A,B,C, and D only include atomic values, only the following functional dependency and those that can be inferred from them hold: A → C, B→D. The relation is in :

Options :

1. ✔ 1NF but not in 2NF

2. ✖ 2 NF but not in 3NF

3. ✖ 3NF but not in BCNF

4. ✖ BCNF but not in 4NF

Question Number : 121 Question Id : 79840723857 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct : 2 Wrong : 0.66

Consider the relation R shown in the below Figure.

X	Y	Z
X1	Y1	Z1
X1	Y1	Z2
X2	Y1	Z1
X2	Y1	Z3

List all the functional dependencies that this relation instance satisfies.

Options :

1. ✖ R: Z → Y, X → Y, and X → Z

2. ✔ R: Z → Y, X → Y, and XZ → Y

3. ✖ R: X → Y, X → Z, and XZ → Y

4. ✖ R: Z → Y, X → Z, and XZ → Y

Question Number : 122 Question Id : 79840723858 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct : 2 Wrong : 0.66

The following example is a _____.
T1:R(X), T2:R(X), T2:W(X), T1:W(X), T2:Commit, T1:Commit

Options :

1. ✖ serializable schedule and it is strict

2. ✖ not serializable schedule and it's not strict

3. ✔ serializable schedule, but it's not strict

4. ✖ not serializable schedule, but it is strict

Question Number : 123 Question Id : 79840723859 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct : 2 Wrong : 0.66

Extendible hashing allows the size of the directory to increase and decrease depending on the number and variety of inserts and deletes. Once the directory size changes, the hash function applied to the search key value should also change. So there should be some information in the index as to which hash function is to be applied. This information is provided by _____.

Options :

1. ✖ Local depth

2. ✔ Global depth

3. ✖ Over flow bucket

4. ✖ Buddy bucket

Question Number : 124 Question Id : 79840723860 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct : 2 Wrong : 0.66

A 3NF table which does not have multiple overlapping candidate keys is said to be in ____.

Options :

1. ✖ 1NF

2. ✖ 2NF

3. ✖ 4NF

4. ✔ BCNF

Question Number : 125 Question Id : 79840723861 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct : 2 Wrong : 0.66

Consider the following script:

```
<html>
<head><title>JavaScript</title></head>
<body>
<script language="JavaScript">
var a=80
var b=(a==80 ? "pass" : "fail"):
document.write(b)
</script>
</body>
</html>
```

What will be the output of the above script?

Options :

1. ✔ pass

2. ✖ fail

3. ✖ 80

4. ✖ Error at line 6.

Question Number : 126 Question Id : 79840723862 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct : 2 Wrong : 0.66

An alternative to JavaScript is

Options :

1. ✔ VBScript

2. ✖ ASP.NET

3. ✖ JSP

4. ✖ None of the given options

Question Number : 127 Question Id : 79840723863 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct : 2 Wrong : 0.66

When destroy() method of servlet gets called?

Options :

1. ✖ The destroy() method is called only once at the end of the life cycle of a servlet.

2. ✖ The destroy() method is called after the servlet has executed service method.

3. ✖ The destroy() method is called only once at the end of the life cycle of a servlet. And The destroy() method is called after the servlet has executed service method.

4. ✔ None of the given options

Question Number : 128 Question Id : 79840723864 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct : 2 Wrong : 0.66

Which of the following way can be used to keep track of previous client request?

Options :

1. ✖ Using cookies

2. ✖ Using hidden form fields

3. ✖ Using URL rewriting

4. ✔ All the given options

Question Number : 129 Question Id : 79840723865 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct : 2 Wrong : 0.66

For XML document to be valid

Options :

1. ✖ document need to be well-formed

2. ✖ document need to be validated against a DTD

3. ✔ document need to be well-formed and document need to be validated against a DTD

4. ✖ document should contain valid data

Question Number : 130 Question Id : 79840723866 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct : 2 Wrong : 0.66

Which of the following instruct the browser which stylesheet to use

Options :

1. ✖ <xml-stylesheet type="text/xsl" href="cd.xsl">

2. ✖ <xml-stylesheet type="text/xsl" xsl="cd.xsl">

3. ✔ <?xml-stylesheet type="text/xsl" href="cd.xsl"?>

4. ✖ <?xml-stylesheet type="text/xsl" xsl="cd.xsl"?>

Question Number : 131 Question Id : 79840723867 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct : 2 Wrong : 0.66

The values GET, POST are specified in ____ of HTTP message

Options :

1. ✔ Request line

2. ✖ Header line

3. ✖ Status line

4. ✖ Entity body

Question Number : 132 Question Id : 79840723868 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct : 2 Wrong : 0.66

When is the mouseout event fired?

Options :

1. ✖ When mouse is no longer over an element

2. ✔ When mouse is over an element

3. ✖ When mouse is hovered

4. ✖ None of the given options

Question Number : 133 Question Id : 79840723869 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct : 2 Wrong : 0.66

NFS server is

Options :

1. ✖ Stateful server

2. ✖ Stateless server

3. ✖ One whose architecture uses virtual file system(VFS) layer

4. ✔ Stateless server and One whose architecture uses virtual file system(VFS) layer

Question Number : 134 Question Id : 79840723870 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct : 2 Wrong : 0.66

Stateless server means

Options :

1. ✔ It keeps state information pertaining to a client request between such requests

2. ✖ It does not keep state information pertaining to a client request between such requests

3. ✖ Client binding to server is not required before processing a client request

4. ✖ None of the given options

Question Number : 135 Question Id : 79840723871 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct : 2 Wrong : 0.66

In a distributed system, location transparency implies

Options :

1. ✔ Physical identity of the resources is not directly embedded into client's code

2. ✖ Users can not tell where resources are located

3. ✖ Users can tell where resources are located

4. ✖ Physical identity of the resources is not directly embedded into client's code and Users can not tell where resources are located

Question Number : 136 Question Id : 79840723872 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct : 2 Wrong : 0.66

In group communication involving n members, group addressing uses

Options :

1. ✖ n-1 unicasts
2. ✖ One multicast
3. ✖ One broadcast
4. ✔ May use any one of the given options

Question Number : 137 Question Id : 79840723873 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct : 2 Wrong : 0.66

The inherent limitation of Distributed Systems is

Options :

1. ✖ Absence of central controller for synchronization
2. ✔ Absence of shared memory
3. ✖ Absence of centralized deadlock manager
4. ✖ Absence of centralized scheduler

Question Number : 138 Question Id : 79840723874 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct : 2 Wrong : 0.66

Triple Modular Redundancy(TMR) for fault tolerance is characterized by

Options :

1. ✔ Each device is replicated three times
2. ✖ Each voter is a circuit that has three inputs and one output
3. ✖ Each device is replicated three times and Each voter is a circuit that has three inputs and one output
4. ✖ None of the given options

Question Number : 139 Question Id : 79840723875 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct : 2 Wrong : 0.66

UNIX semantics for shared file access are characterized by

Options :

1. ✔ Every operation on a file is instantly visible to all processes
2. ✖ No changes are visible to other processes until the file is closed
3. ✖ These are best suited for centralized systems
4. ✖ Every operation on a file is instantly visible to all processes and these are best suited for centralized systems

Question Number : 140 Question Id : 79840723876 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct : 2 Wrong : 0.66

Which of the following is NOT a characteristic of the data collection maintained in a Data Warehouse?

Options :

1. ✖ Integrated
2. ✖ Subject Oriented
3. ✔ Volatile
4. ✖ Time-variant

Question Number : 141 Question Id : 79840723877 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct : 2 Wrong : 0.66

Which of the following is an interestingness metric used for data characterization?

Options :

1. ✔ typicality weight

2. ✖ recall

3. ✖ confidence

4. ✖ cohesion

Question Number : 142 Question Id : 79840723878 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct : 2 Wrong : 0.66

The Euclidean distance between the pair of data points, X and Y, where X=0.2,0.5,0,0.6> and Y=0.4,0.3,0.1,0.6> is _____

Options :

1. ✖ 0.09

2. ✖ 0.2

3. ✔ 0.3

4. ✖ 0.5

Question Number : 143 Question Id : 79840723879 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct : 2 Wrong : 0.66

Consider a 4-dimensional dataset with attributes A,B,C,D described in terms of 10,4,50,20 distinct values respectively. Assuming that each cell occupied 2 bytes of memory, what is the total memory space required to materialize all possible 3-Dimensional cuboids of the dataset?

Options :

1. ✖ 32,000 bytes

2. ✔ 33,600 bytes

3. ✖ 16,800 bytes

4. ✖ 14,800 bytes

Question Number : 144 Question Id : 79840723880 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct : 2 Wrong : 0.66

Consider an attribute whose value is 48 in a range of 18 to 98. What is its equivalent value in -1 to +1 scale using Min-Max normalization?

Options :

1. ✖ 0.75

2. ✖ 0.25

3. ✔ -0.25

4. ✖ -0.625

Question Number : 145 Question Id : 79840723881 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct : 2 Wrong : 0.66

Which of the following metrics is used for building decision tree classifiers from the training set of examples?

Options :

1. ✖ Euclidean distance

2. ✖ Support

3. ✔ Information gain

4. ✖ Precision

Question Number : 146 Question Id : 79840723882 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct : 2 Wrong : 0.66

Which of the following estimates are represented in the Box-plot of an attribute?

Options :

1. ✖ Mean, Mode, and Median

2. ✖ Mean, Mode, Median, Min and Max

3. ✔ Min, Max, quartiles Q1, Q2 and Q3

4. ✖ only quartiles Q1, Q2 and Q3

Question Number : 147 Question Id : 79840723883 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct : 2 Wrong : 0.66

Which of the following clustering algorithms is applicable for grouping nearly 1000 data points into ten mutually exclusive clusters?

Options :

1. ✖ Agglomerative clustering

2. ✖ Divisive clustering

3. ✖ DBSCAN

4. ✔ K-means clustering

Question Number : 148 Question Id : 79840723884 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct : 2 Wrong : 0.66

Which of the following activation functions is applied for hidden and output layer neurons for building a back propagation classifier using neural network?

Options :

1. ✔ Sigmoid function

2. ✖ Radial Basis Function

3. ✖ Poisson regression

4. ✖ Gaussian function

Question Number : 149 Question Id : 79840723885 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct : 2 Wrong : 0.66

If T consist of 500000 transactions, 20000 transaction contain bread, 30000 transaction contain jam, 10000 transaction contain both bread and jam. Then the support of bread and jam is_____
Identify the strongest association rule among the options given below?

Options :

1. ✔ 2 Percent

2. ✖ 20 Percent

3. ✖ 3 Percent

4. ✖ 30 Percent

Question Number : 150 Question Id : 79840723886 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct : 2 Wrong : 0.66

Consider the performance of a binary classifier on a test set containing 1100 positive and 700 negative examples. The components of the confusion matrix in terms of TP, FN, FP and TN are 700,400, 200 and 500 respectively. What is the approximate value of classifier accuracy?

Options :

1. ✔ 66.6 Percent

2. ✖ 63.3 Percent
3. ✖ 33.3 Percent
4. ✖ 75 Percent