Question Paper Name: Computer Science and Information Technology 10th May 2017 Shift 2
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Display Number Panel: Yes
Group All Questions: No

Question Number : 1 Question Id : 254528601 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

The mean deviation of 2. 4. 6. 8. 10 about its mean is

Options :

1. 2.4

2. 3.4

3. 4.2

4. 4.3

Question Number : 2 Question Id : 254528602 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

If X is a Binomial variate of n trials. with mean 10 and variance 5. then n is

Options :

1. 5

2. 10

3. 15

4. 20

Question Number : 3 Question Id : 254528603 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

The number of integers between 1 and 499 which are divisible by 3 but not by 5 is

Options :

1. 133

2. 134

Question Number : 4 Question Id : 254528604 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Let S_{12} be the set of positive divisors of 12 and D be the division partial order on S_{12}. In the lattice (S_{12}, D), the complement of 3 is

Options :

1. 1
2. 3
3. 4
4. 6

Question Number : 5 Question Id : 254528605 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

The generating function of the sequence 0, 2, 6, 12, 20, ... is

Options :

1. $\frac{2x}{(1-x)^3}$
2. $\frac{x}{(1-x)^3}$
3. $\frac{x^2}{(1-x)^3}$
4. $\frac{2x^2}{(1-x)^3}$

Question Number : 6 Question Id : 254528606 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

If $a_{n+2} - 4a_{n+1} + 4a_n = 0$ for $n = 0, 1, 2 \ldots$ then $a_n =$

Options :

1. $n^2 2^n$
2. $(n+1)2^n$
3. $(n+n^2)2^n$
4. $(n^2+1)2^n$

Question Number : 7 Question Id : 254528607 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

If $\lambda_1, \lambda_2 \ldots, \lambda_n$ are eigen values of $n \times n$ matrix A and $k \neq 0$, then the eigen values of matrix kA are

2. $\frac{1}{k}\lambda_1, \frac{1}{k}\lambda_2, \ldots, \frac{1}{k}\lambda_n$

3. $k\lambda_1, k\lambda_2, \ldots, k\lambda_n$

4. $\lambda_1^{\frac{1}{k}}, \lambda_2^{\frac{1}{k}}, \ldots, \lambda_n^{\frac{1}{k}}$

Question Number : 8 Question Id : 254528608 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

From the table given below

x	0	0.2	0.4	0.6	0.8	1
f(x)	0	0.008	0.064	0.216	0.512	1

the value of $\int_0^1 f(x)dx$ by Trapezoidal rule, is

Options :

1. 0.25

2. 0.27

3. 0.26

4. 0.24

Question Number : 9 Question Id : 254528609 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

The value of $y(0.01)$. by Euler's method for the differential equation $y' = -y$ with $y(0) = 1$ and $h = 0.01$ is

Options :

1. 0.99

2. 0.98

3. 1.01

4. 1.02

Question Number : 10 Question Id : 254528610 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

The maximum value of $f(x, y, z) = kxyz^2$ (k is constant) subject to $x^2 + y^2 + z^2 = a^2$ is

Options :

2. $\frac{ka^2}{8}$

3. $8ka^2$

4. $8ka^4$

Question Number : 11 Question Id : 254528611 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Which of the following set of rules of inference correspond to "Modus ponens"?

Options :

1. $P \rightarrow q \ . \ q \rightarrow r$ therefore $p \rightarrow r$

2. $pVq. \neg pVr$ therefore $q \ V \ r$

3. $\neg q. \ p \rightarrow q$ therefore $\neg p$

4. $p. \ p \rightarrow q$ therefore q

Question Number : 12 Question Id : 254528612 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

$R \rightarrow (P \rightarrow R)$ is equivalent to

Options :

1. P

2. R

3. Tautology

4. Contradiction

Question Number : 13 Question Id : 254528613 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

What is the correct translation of the following statement into mathematical logic?

"Some real numbers are rational"

Options :

1. $\exists x \ (real(x) \ V \ rational \ (x))$

2. $\forall x \ (real(x) \rightarrow rational(x))$

3. $\exists x \ (real(x) \ \Lambda \ rational \ (x))$

4. $\exists x \ (real(x) \rightarrow rational \ (x))$

Options :

1. A partial order
2. A total order
3. An equivalence relation
4. A symmetric relation

Question Number : 15 Question Id : 254528615 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

The function $((p \vee (r \vee q)) \wedge \neg(\neg q \wedge \neg r)$ is equal to the function

Options :

1. $p \vee r$
2. $(\neg q \wedge \neg r)$
3. $q \vee r$
4. r

Question Number : 16 Question Id : 254528616 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

A connected planar graph with 15 vertices divides the plane into 12 regions. How many edges does the graph have?

Options :

1. 15
2. 24
3. 25
4. Insufficient data

Question Number : 17 Question Id : 254528617 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

What is the chromatic number of an n-vertex simple connected graph which does not contain any odd length cycle? Assume $n >= 2$.

Options :

1. 2
2. 3
3. $n - 1$

Orientation : Vertical

An undirected simple graph has an even number of vertices having

Options :

1. An even degree
2. An odd degree
3. A degree of atleast n/2
4. A degree of atleast n/3

Question Number : 19 Question Id : 254528619 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Maximum number of edges in an n- node undirected graph without self-loop is

Options :

1. n^2
2. $n(n-1)/2$
3. $n-1$
4. $n(n+1)/2$

Question Number : 20 Question Id : 254528620 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Suppose G and H are isomorphic simple graphs. Then

Options :

1. $\overline{G}$ and $\overline{H}$ are isomorphic
2. $\overline{G}$ and $\overline{H}$ are not isomorphic
3. $\overline{G}$ and H are isomorphic
4. G and $\overline{H}$ are isomorphic

Question Number : 21 Question Id : 254528621 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

The minimal sum of products expression for the function $F = \sum ABC(0, 1, 5, 7)$ is

Options :

1. $A + C$

4. $AB' + A'C' + B'C'$

Question Number : 22 Question Id : 254528622 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Odd parity of word can be conveniently tested by

Options :

1. OR gate

2. AND gate

3. NOR gate

4. XOR gate

Question Number : 23 Question Id : 254528623 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

The range of numbers which can be represented by 9 bits when two's complement integer representation is used is

Options :

1. –256 to 255

2. –255 to 256

3. –512 to 511

4. 0 to 1024

Question Number : 24 Question Id : 254528624 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Given for two Boolean variables x and y. $xy' + x'y = z$. what is $xz' + x'z$?

Options :

1. x

2. y

3. z

4. xyz

Question Number : 25 Question Id : 254528625 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

The present output Q_n of an edge triggered J-K flip-flop is logic 0. If j = 1 then Q_{n+1}

Options :

3. cannot be determined

4. will race around

Question Number : 26 Question Id : 254528626 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Which of the following instructions is an example of direct addressing mode?

Options :

1. MOV A. B

2. LXI. H.2050

3. MVI A.05

4. HLT

Question Number : 27 Question Id : 254528627 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

If the main memory is of 8K bytes and the cache memory is of 2K words and if associative mapping is used, the word size in cache memory will be

Options :

1. 16 bits

2. 20 bits

3. 21 bits

4. 11 bits

Question Number : 28 Question Id : 254528628 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

The micro operation that divides the number by 2 by leaving the sign bit unchanged is

Options :

1. Arithmetic shift left

2. Arithmetic shift right

3. Circular shift left

4. Circular shift right

Question Number : 29 Question Id : 254528629 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

The priority interrupt method that consists of serial connections of all devices requesting an interrupt where the devices are arranged from higher to lower priority is

2. Parallel priority

3. Priority encoder

4. Priority decoder

Question Number : 30 Question Id : 254528630 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

In case of Zero-address instruction format the operands are stored in

Options :

1. Registers

2. Accumulators

3. Push down stack

4. Cache

Question Number : 31 Question Id : 254528631 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

A memory unit where the elements are accessed by content is called

Options :

1. Associative memory

2. RAM

3. ROM

4. Auxiliary memory

Question Number : 32 Question Id : 254528632 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

A CPU has 13- bits address bus and an 8-bit data bus. It is connected to a memory of 16K bits organized in 2K bytes. How much more memory (in bytes) can be added?

Options :

1. 8K bytes

2. 6K bytes

3. 4K bytes

4. 16K bytes

Question Number : 33 Question Id : 254528633 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Options :

1. secondary storage. main memory. cache. registers

2. registers. cache. secondary storage. main memory

3. registers. cache. main memory. secondary storage

4. cache. registers. main memory. secondary storage

Question Number : 34 Question Id : 254528634 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Basic Stored Program Computer architecture consumes

Options :

1. more time to memory accesses and less time to execution

2. less time to memory accesses and more time to execution

3. more time to memory accesses and more time to execution

4. less time to memory accesses and less time to execution

Question Number : 35 Question Id : 254528635 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

In which class of computer(s). the primary goal is to optimize the response time and not the throughput?

Options :

1. Desktop Computers

2. Embedded Computers

3. Server Computers

4. Datacenters

Question Number : 36 Question Id : 254528636 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

What output is obtained after the compilation and execution of the following C code?

```
#include<stdio.h>
int main()
{ int i=4.x:x=+- i +   ++i  +   ++i:
 printf("%d".x): retum 0:
}
```

2.

3. 12

4. 21

Question Number : 37 Question Id : 254528637 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

A binary tree T has n leaf nodes. The number of nodes of degree 2 in T are

Options :

1. Log n

2. n – 1

3. n + 1

4. n

Question Number : 38 Question Id : 254528638 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

The first step of Dijkstra's algorithm for finding single source shortest paths in a graph is to

Options :

1. find minimum cost edge in the graph

2. find the shortest path in the graph

3. find the connectivity to all notes in the graph

4. find the cycles in the graph

Question Number : 39 Question Id : 254528639 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

What is the main drawback of parameter passing by 'call by value'?

Options :

1. Variable passing

2. Expressions passing

3. Copying data consumes additional storage space

4. A function can return only one value.

Question Number : 40 Question Id : 254528640 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

2. ab cd – – *

3. ab – cd * –

4. ab – – cd *

Question Number : 41 Question Id : 254528641 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Which of the following sorting algorithms work on the principle - "less dense particles go up and the more dense particles settle down"?

Options :

1. Selection sort

2. Bubble sort

3. Insertion sort

4. Two-way merge sort

Question Number : 42 Question Id : 254528642 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

In general. linked lists allow

Options :

1. Insertions and removals anywhere in the list

2. Insertions and removals only at one end

3. Insertions at rear end and removals from front end

4. Insertions at front end and removal at rear end

Question Number : 43 Question Id : 254528643 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Queue plays major role in

Options :

1. Simulation of recursion

2. Simulation of arbitrary linked list

3. Simulation of limited resource allocation

4. Expression evaluation

shortest paths in a graph?

Options :

1. Greedy

2. Dynamic Programming

3. Divide and Conquer

4. Back tracking

Question Number : 45 Question Id : 254528645 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Kruskal's algorithm for finding a minimum spanning tree of a weighted graph G with n vertices and m edges has the time-complexity of

Options :

1. $O(n^2)$

2. $O(m + n)$

3. $O(mn)$

4. $O(m^2)$

Question Number : 46 Question Id : 254528646 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

If the inorder and postorder traversal of a binary tree are both ABC. Then its preorder traversal is

Options :

1. CBA

2. ABC

3. BCA

4. ACB

Question Number : 47 Question Id : 254528647 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

In a binary search tree, if there are 'n' internal nodes then how many external nodes will be present?

Options :

1. 1

4. $n + 1$

Question Number : 48 Question Id : 254528648 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

What is the average number of comparisons in binary search algorithm?

Options :

1. $\log_2(n)$

2. $\log_2(n^2)$

3. $n \log_2(n)$

4. $\log_2 \frac{(n(n+1))}{2}$

Question Number : 49 Question Id : 254528649 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Assuming $P \neq NP$, which of the following is true?

Options :

1. NP-Complete = NP

2. NP-Complete $\cap$ P = $\emptyset$

3. NP hard = NP

4. P = NP-Complete

Question Number : 50 Question Id : 254528650 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Which of the following problems is NP-Hard but not NP-complete?

Options :

1. Graph coloring

2. Satisfiability problem

3. Clique decision problem

4. N-Queens problem

Question Number : 51 Question Id : 254528651 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

1. $(1 + 010)^*$

2. $(01 + 10)^*$

3. $(1 + 010)^* (0 + \lambda)$

4. $(1 + 01)^* (0 + \lambda)$

Question Number : 52 Question Id : 254528652 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

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

Options :

1. not recursive

2. recursive and is a deterministic CFL

3. a regular language

4. not a deterministic CFL but a CFL

Question Number : 53 Question Id : 254528653 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

The Language accepted by PushDown Automata is

Options :

1. Type 0

2. Type 1

3. Type 2

4. Type 3

Question Number : 54 Question Id : 254528654 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

The Grammar $S \rightarrow aSa \mid bSc \mid c$ is

Options :

1. LL(1) but not LR(1)

2. LR(1) but not LL(1)

3. both LL(1) and LR(1)

4. neither LL(1) nor LR(1)

Options :

1. Regular

2. Context free

3. Context sensitive

4. Recursive

Question Number : 56 Question Id : 254528656 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

If the strings of a languages L can be effectively enumerated in lexicographic (i.e.. alphabetic) order which of the following statement is true?

Options :

1. L is necessarily finite

2. L is regular but not necessarily finite

3. L is context free but not necessarily regular

4. L is recursive but not necessarily context free

Question Number : 57 Question Id : 254528657 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

What is the minimum number of states in the NFA accepting the language {ab. abc}?

Options :

1. 4

2. 5

3. 3

4. 2

Question Number : 58 Question Id : 254528658 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

The language $L = (0^n\ 1^n\ 2^n$ where $n > 0)$ is a

Options :

1. context free language

2. context-sensitive language

3. regular language

Question Number : 59 Question Id : 254528659 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

The language ($a^n b^n$ / $n \leq 2017$) is

Options :

1. regular

2. not regular

3. context free

4. context sensitive

Question Number : 60 Question Id : 254528660 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

A problem is not computable if and only if

Options :

1. It is not decidable

2. It is not Turing recognizable

3. It is not countable

4. The language is infinite

Question Number : 61 Question Id : 254528661 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

The flow of control of program's activation tree can be represented by

Options :

1. Depth first traversal

2. Breadth first traversal

3. B-Tree

4. B^- Tree

Question Number : 62 Question Id : 254528662 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

A general macro processor is an inbuilt function of

Options :

1. Loader

2. Linker

Question Number : 63 Question Id : 254528663 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

The output of the parsing is

Options :

1. Lexemes

2. Syntax tree

3. Three address code

4. Assembly code

Question Number : 64 Question Id : 254528664 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Which of the following is true while converting CFG to LL(1) grammar?

Options :

1. Removes left recursion alone

2. Removes factoring alone

3. Removes both left recursions and factoring

4. Removes right recursion alone

Question Number : 65 Question Id : 254528665 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Some code optimizations are carried out during the intermediate code because

Options :

1. They enhance the portability of the compiler to other target processors

2. Program analysis is more accurate on intermediate code than on machine code

3. The information from dataflow analysis cannot otherwise be used for optimization

4. The information from the semantic analysis cannot otherwise be used for optimization

Question Number : 66 Question Id : 254528666 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Compiler is preferred over interpreter if

Options :

1. Language is strongly typed

Procedural abstraction is involved

4.

Question Number : 67 Question Id : 254528667 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Which of the following is a loop optimization technique?

Options :

1. Folding

2. Induction variable elimination

3. Compile time computation

4. Redundant sub expression elimination

Question Number : 68 Question Id : 254528668 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

In which of the following phases of compiler. type checking is done?

Options :

1. Syntax analysis

2. Semantic analysis

3. Lexical analysis

4. Code generation

Question Number : 69 Question Id : 254528669 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Which data structure in a compiler is used for managing information about variables and their attributes?

Options :

1. Syntax Tree

2. Symbol Table

3. Grammar

4. Parsing Table

Question Number : 70 Question Id : 254528670 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Options :

local optimization
1.

loop optimization
2.

constant folding
3.

data flow analysis
4.

Question Number : 71 Question Id : 254528671 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

A program located in the smallest available hole in the memory is

Options :

best fit
1.

first fit
2.

worst fit
3.

compaction
4.

Question Number : 72 Question Id : 254528672 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Page fault occurs when

Options :

Page is corrupted by an application software
1.

the page is in not the main memory
2.

the power goes off
3.

an intruder attacks the system
4.

Question Number : 73 Question Id : 254528673 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Which of the following scheduling algorithms gives minimum average waiting time?

Options :

First Come First Serve
1.

Shortest Job First
2.

Question Number : 74 Question Id : 254528674 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Which scheduling policy is most suitable for time shared operating systems?

Options :

1. Shortest Job First

2. First Come First Serve

3. Round Robin

4. Preemptive Scheduling

Question Number : 75 Question Id : 254528675 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

A Critical Section in a program segment is one

Options :

1. which should run in a certain specified amount of time

2. which must be enclosed by a pair of semaphores operation

3. where shared resources are accessed

4. which must be enclosed by a pair of semaphores operation

Question Number : 76 Question Id : 254528676 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

What is demand paging?

Options :

1. A policy for determining which page to replace

2. Starting a process with all of its pages resident in physical memory

3. Loading a page into memory only on a page fault

4. Overlaying a page in memory

Question Number : 77 Question Id : 254528677 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Which of the following CPU scheduling algorithms can cause "starvation"?

Options :

1. Round Robin

3.

Non pre-emptive scheduling

4.

Question Number : 78 Question Id : 254528678 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Which of the following memory allocation strategies suffers from internal fragmentation?

Options :

1. Best fit

2. Worst fit

3. Compaction

4. Buddy System

Question Number : 79 Question Id : 254528679 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

The scheduler admits a process using

Options :

1. two phase locking protocol

2. admission control algorithm

3. busy wait polling

4. only nice value

Question Number : 80 Question Id : 254528680 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Working set model for page replacement is based on the assumption of

Options :

1. modularity

2. locality

3. globalization

4. random access

Question Number : 81 Question Id : 254528681 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Options :

1. Database Engine

2. Data storage subsystem

3. Query Processor

4. Security Subsystem

Question Number : 82 Question Id : 254528682 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

While building a database, the data dealing with an entity is modeled as a

Options :

1. Class

2. Object

3. Attribute

4. Table

Question Number : 83 Question Id : 254528683 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

A reflexive association is one where one class is

Options :

1. Broken down into special classes

2. Combined with multiple other classes

3. Combined with another class

4. Linked back to itself

Question Number : 84 Question Id : 254528684 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Data integrity is an important issue in database design. Which of the following features of database design are not related to data integrity?

Options :

1. Minimum cardinality constraint

2. Constraint on values of an attribute

Question Number : 85 Question Id : 254528685 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Consider the join of a relation R with relation S. If R has m tuples and S has n tuples, then the maximum size of join of R and S is

Options :

1. mn

2. $m + n$

3. $(m - n)/2$

4. $2(m - n)$

Question Number : 86 Question Id : 254528686 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Data Manipulation Language (DML) is not to

Options :

1. Create information table in the Database

2. Insert new information into the Database

3. Delete information from the Database

4. Modify information in the Database

Question Number : 87 Question Id : 254528687 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

The primary key is selected from the

Options :

1. composite keys

2. determinants

3. candidate keys

4. foreign keys

Question Number : 88 Question Id : 254528688 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

To remove duplicate rows from the results of an SQL SELECT statement, the _____ qualifier must be included.

Options :

3. DISTINCT

4. SINGLE

Question Number : 89 Question Id : 254528689 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

For a weak entity set to be meaningful. it must be associated with another entity set called

Options :

1. Identifying set

2. Owner set

3. Neighbor set

4. Strong entity set

Question Number : 90 Question Id : 254528690 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

In a transaction. which of the following will undo all statements up to commit?

Options :

1. Commit

2. Flashback

3. Rollback

4. Abort

Question Number : 91 Question Id : 254528691 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Which of the following is not used as a cost estimation technique during the project planning stage?

Options :

1. Delphi technique

2. Expert judgment

3. Program Evaluation Review Technique(PERT)

4. Function Points(FP)

Options :

1. performance testing

2. structural testing

3. functional testing

4. mutation testing

Question Number : 93 Question Id : 254528693 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Which one of the following assertions concerning code inspection and code walkthrough is true?

Options :

1. Code inspection is carried out once the code has been unit tested

2. Code inspection and code walkthrough are synonyms

3. Adherence to coding standards is checked during code inspection

4. Code walkthrough is usually carried out by an independent test team

Question Number : 94 Question Id : 254528694 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

In which of the following process models. risk is evaluated and managed at each stage of development?

Options :

1. Spiral model

2. Waterfall model

3. Agile model

4. Unified Process model

Question Number : 95 Question Id : 254528695 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

The process of transforming source code to design is known as

Options :

1. Software refactoring

Re-engineering

4.

Question Number : 96 Question Id : 254528696 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Which of the following diagrams is used to depict interaction of messages between the objects using time ordering?

Options :

State chart diagram

1.

Collaboration diagram

2.

Communication diagram

3.

Sequence diagram

4.

Question Number : 97 Question Id : 254528697 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Which three domains are typically depicted in software requirement models?

Options :

Architecture. interface. Component

1.

Cost . Risk. Schedule

2.

Information. Function. Behavior

3.

Interface. Cost, Risk

4.

Question Number : 98 Question Id : 254528698 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Which of the following is not considered as a tool at system design phase?

Options :

Data flow diagram

1.

Decision table

2.

Pie chart

3.

System flow chart

4.

Question Number : 99 Question Id : 254528699 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

1. Program testing is more comprehensive than system testing

2. System testing focuses on testing the interfaces between programs. program testing focuses on individual programs

3. System testing is tough and program testing is easy

4. Both the program testing and system testing are of similar toughness

Question Number : 100 Question Id : 254528700 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Which of the following activities is not involved in software walk-through?

Options :

1. Improve quality of a subsystem through peer review

2. Presentation of line-by-line code to the members of the team

3. Identification of errors in the code

4. Identifying conflicts in design goals

Question Number : 101 Question Id : 254528701 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

What is the one service/guarantee that UDP provides to application layer protocols?

Options :

1. Error detection

2. Security

3. Connection oriented service

4. Piggy backing

Question Number : 102 Question Id : 254528702 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

The address of class B host is to split into subnets with a six-bit number. What is the maximum number of subnets and the maximum number of hosts in each subnet?

Options :

1. 64 subnets. 64 hosts

2. 64 subnets. 1024 hosts

3. 64 subnets. 2048 hosts

Question Number : 103 Question Id : 254528703 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Which of the following are used to generate a message digest by the network security protocols?

(P) RSA (Q) SHA-1 (R) DES (S) MD5

Options :

1. P and R only

2. Q and R only

3. Q and S only

4. P and S only

Question Number : 104 Question Id : 254528704 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Port number for POP protocol is

Options :

1. 220

2. 140

3. 110

4. 250

Question Number : 105 Question Id : 254528705 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Which data communication method is used to transmit the data over a serial communication link?

Options :

1. Simplex

2. Half-duplex

3. Full duplex

4. Synchronous

Question Number : 106 Question Id : 254528706 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Which of the following devices is a PC component that connects the computer to the network?

2. [illegible]

DNS Server

3.

Gateway

4.

Question Number : 107 Question Id : 254528707 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

To deliver a message to the correct application program running on a host, the _____ address must be consulted.

Options :

IP

1.

MAC

2.

PORT

3.

Socket

4.

Question Number : 108 Question Id : 254528708 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Start and stop bits are used in serial communication for

Options :

error detection

1.

error correction

2.

error control

3.

synchronization

4.

Question Number : 109 Question Id : 254528709 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Which of the following is a technique used by Mobile IP?

Options :

1. IP Tunneling

Change of IP address of the mobile device

2.

IP Exchange

3.

IP spoofing

4.

Options :

1. Through symmetric encryption such as RSA

2. Through asymmetric encryption such as Data Encryption Standard (DES)

3. Through asymmetric encryption such as Advanced Encryption Standard (AES)

4. Through symmetric encryption such as Data Encryption Standard (DES)

Question Number : 111 Question Id : 254528711 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

A layer-4 firewall (a device that can look at all protocol headers up to the transport layer) CANNOT

Options :

1. block entire HTTP traffic during 9:00 PM and 5:00 AM

2. block all ICMP traffic

3. stop incoming traffic from a specific IP address but allow outgoing traffic to the same IP address

4. block TCP traffic from a specific user on a multi-user system during 9:00 PM and 5:00 AM

Question Number : 112 Question Id : 254528712 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Which of the following protocols uses link-state routing algorithm?

Options :

1. RIP

2. BGP

3. OSPF

4. FTP

Question Number : 113 Question Id : 254528713 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Which of the following attacks. an Ideal password authentication scheme should withstand?

Options :

3. IP address spoofing

4. Sniffer attack

Question Number : 114 Question Id : 254528714 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

The number of allowed hops for an IP packet is kept in the _____ field.

Options :

1. ToS

2. IHL

3. Frag. Off.

4. TTL

Question Number : 115 Question Id : 254528715 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Which e-mail protocol creates multiple mail boxes?

Options :

1. SMTP

2. POP

3. IMAP

4. http

Question Number : 116 Question Id : 254528716 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

The way of writing HTML that emphasizes the meaning of the encoded information over its presentation (look) is called

Options :

1. XHTML

2. SGML

3. S-HTML

4. XML

Question Number : 117 Question Id : 254528717 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

1. [illegible]

2. id

3. dot

4. href

Question Number : 118 Question Id : 254528718 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Which one of the following is not a client-server application?

Options :

1. Internet chat

2. Web browsing

3. E-mail

4. Ping

Question Number : 119 Question Id : 254528719 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

External CSS file can be linked to HTML using _____

Options :

1. <link>

2. <style>

3. <add>

4. <href>

Question Number : 120 Question Id : 254528720 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

XML tag begins with

Options :

1. (# xml version = "1.0"#)

2. (xml version = "1.0")

3. (? xml version = "1.0"?)

4. (@ xml version = "1.0"@)