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Computer Science Engineering

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Sub-Section Id :	1319921
Question Shuffling Allowed :	Yes

Question Number : 1 Question Id : 1319921 Question Type : MCQ Option Shuffling : No Correct Marks : 1 Wrong Marks : 0

The seven elements S, H, J, M, O, G and A are pushed onto a stack in reverse order that is starting from A. The stack is popped five times and each element is inserted into a queue. Two elements are deleted from the queue and pushed back onto the stack. Now one element is popped from the stack. The popped item is _____

(1) S **(2) H**

(3) G **(4) A**

Options :

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

Question Number : 2 Question Id : 1319922 Question Type : MCQ Option Shuffling : No Correct Marks : 1 Wrong Marks : 0

When a new element is inserted in the middle of the linked list, then the references of _____ has to be adjusted/updated.

(1) Those nodes that appear after the new node

(2) Those nodes that appear before the new node

(3) Those nodes that appear just before and after the new node

(4) Head and Tail nodes

Options :

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

Question Number : 3 Question Id : 1319923 Question Type : MCQ Option Shuffling : No Correct Marks : 1 Wrong Marks : 0

Consider a binary max-heap implemented using an array. Which among the following arrays represents a binary max-heap?

(1) 25, 12, 14, 08, 10, 13, 16

(2) 25, 12, 16, 13, 10, 08, 14

(3) 25, 14, 16, 13, 10, 08, 12

(4) 25, 14, 12, 13, 10, 08, 16

Options :

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

Question Number : 4 Question Id : 1319924 Question Type : MCQ Option Shuffling : No Correct Marks : 1 Wrong Marks : 0

Which of the following traversals outputs the data in sorted order in a Binary Search Tree?

(1) Pre-order

(2) In-order

(3) Post-order

(4) Level-order

Options :

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

Question Number : 5 Question Id : 1319925 Question Type : MCQ Option Shuffling : No Correct Marks : 1 Wrong Marks : 0

In the context of hash tables, what does "load factor" refers to?

(1) The ratio of the number of entries to the number of buckets in the table

(2) The maximum number of collisions allowed before resizing

(3) The percentage of keys that are null

(4) The average search time for an entry

Options :

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

Question Number : 6 Question Id : 1319926 Question Type : MCQ Option Shuffling : No Correct Marks : 1 Wrong Marks : 0

As a part of maintenance work, you are entrusted with the work of rearranging the library books in a shelf in a proper order at the end of each day. The ideal choice will be _____

(1) Heap sort

(2) Quick sort

(3) Selection sort

(4) Insertion sort

Options :

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

Question Number : 7 Question Id : 1319927 Question Type : MCQ Option Shuffling : No Correct Marks : 1 Wrong Marks : 0

Which of the following statements is true about doubly-linked lists?

(1) Deleting a node requires traversal only in the forward direction

(2) Inserting a node after a given node requires updating three pointers

(3) A doubly-linked list uses less memory than a singly-linked list

(4) Reversing a doubly-linked list requires additional space

Options :

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

Question Number : 8 Question Id : 1319928 Question Type : MCQ Option Shuffling : No Correct Marks : 1 Wrong Marks : 0

The pre-order traversal sequence of a binary search tree is 30, 20, 10, 15, 25, 23, 39, 35, 42. Which one of the following is the post-order traversal sequence of the same tree?

(1) 10, 20, 15, 23, 25, 35, 42, 39, 30

(2) 15, 10, 25, 23, 20, 42, 35, 39, 30

(3) 15, 20, 10, 23, 25, 42, 35, 39, 30

(4) 15, 10, 23, 25, 20, 35, 42, 39, 30

Options :

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

Question Number : 9 Question Id : 1319929 Question Type : MCQ Option Shuffling : No Correct Marks : 1 Wrong Marks : 0

If for an algorithm time complexity is given by O(n), then the complexity of it is _____

(1) Constant

(2) Linear

(3) Exponential

(4) Quadratic

Options :

1. 1
2. 2

3. 3
4. 4

Question Number : 10 Question Id : 13199210 Question Type : MCQ Option Shuffling : No Correct Marks : 1 Wrong Marks : 0

What would be the time complexity if user tries to insert the element at the end of the linked list (head pointer is known)?

(1) O(1)

(2) O(n)

(3) O(log n)

(4) O(n log n)

Options :

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

Question Number : 11 Question Id : 13199211 Question Type : MCQ Option Shuffling : No Correct Marks : 1 Wrong Marks : 0

Which of the following circuits is used to store one bit of data?

(1) Encoder

(2) Flip-Flop

(3) Decoder

(4) Register

Options :

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

Question Number : 12 Question Id : 13199212 Question Type : MCQ Option Shuffling : No Correct Marks : 1 Wrong Marks : 0

What will be the number of states when a MOD-2 counter is followed by a MOD-5 counter?

(1) 5

(2) 10

(3) 15

(4) 20

Options :

1. 1

2. 2
3. 3
4. 4

Question Number : 13 Question Id : 13199213 Question Type : MCQ Option Shuffling : No Correct Marks : 1 Wrong Marks : 0

Which Boolean expression corresponds to the output of an XOR gate?

(1) A.B

(2) $\overline{A}$. B + A. $\overline{B}$

(3) $\overline{A.B}$

(4) A + B

Options :

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

Question Number : 14 Question Id : 13199214 Question Type : MCQ Option Shuffling : No Correct Marks : 1 Wrong Marks : 0

In the context of logic design, the sequential circuits are also known as

(1) Latch

(2) Adder

(3) Counter

(4) Flip-Flop

Options :

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

Question Number : 15 Question Id : 13199215 Question Type : MCQ Option Shuffling : No Correct Marks : 1 Wrong Marks : 0

A cache memory needs an access time of 30 ns and main memory 150 ns. What is the average access time of CPU by assuming hit ratio of 80%?

(1) 30 ns
(2) 60 ns
(3) 100 ns
(4) 65 ns

Options :

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

Question Number : 16 Question Id : 13199216 Question Type : MCQ Option Shuffling : No Correct Marks : 1 Wrong Marks : 0

Register renaming is done in pipelined processors

(1) to handle certain kinds of hazards
(2) as an alternative to register allocation at compile time
(3) for efficient access to function parameters and local variables
(4) as a part of address translation

Options :

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

Question Number : 17 Question Id : 13199217 Question Type : MCQ Option Shuffling : No Correct Marks : 1 Wrong Marks : 0

In zero-address instruction method, the operands are stored in

(1) Cache
(2) Registers
(3) Accumulators
(4) Pushdown stack

Options :

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

Question Number : 18 Question Id : 13199218 Question Type : MCQ Option Shuffling : No Correct Marks : 1 Wrong Marks : 0

During DMA transfer, DMA controller transfers data

(1) Directly between memory and registers

(2) Directly between I/O module and main memory

(3) Directly from memory to CPU

(4) Directly between register and memory

Options :

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

Question Number : 19 Question Id : 13199219 Question Type : MCQ Option Shuffling : No Correct Marks : 1 Wrong Marks : 0

The special type of memory which works like both RAM and ROM is

(1) Register

(2) Secondary memory

(3) Cache memory

(4) Flash memory

Options :

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

Question Number : 20 Question Id : 13199220 Question Type : MCQ Option Shuffling : No Correct Marks : 1 Wrong Marks : 0

For computer based on 3-address instruction formats, each address field can be used to specify which of the following?

(S1) A memory operand

(S2) A processor register

(S3) An implied accumulator register

(1) Either S1 or S2

(2) Either S2 or S3

(3) Only S2 and S3

(4) All S1, S2 and S3

Options :

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

Question Number : 21 Question Id : 13199221 Question Type : MCQ Option Shuffling : No Correct Marks : 1 Wrong Marks : 0

Concatenation operation refers to which of the following set of operations?

(1) Union

(2) Dot

(3) Kleene

(4) Intersection

Options :

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

Question Number : 22 Question Id : 13199222 Question Type : MCQ Option Shuffling : No Correct Marks : 1 Wrong Marks : 0

DFA cannot be represented in which of the following formats?

(1) Transition graph

(2) Transition table

(3) C code

(4) None of the above

Options :

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

Question Number : 23 Question Id : 13199223 Question Type : MCQ Option Shuffling : No Correct Marks : 1 Wrong Marks : 0

Which one of the following languages over the alphabet {0, 1} is described by the regular expression?

(0 + 1)* 0(0 + 1)* 0(0 + 1)*

(1) The set of all the strings containing substring 00

(2) The set of all strings containing at most two 0's

(3) The set of all strings containing at least two 0's

(4) The set of all strings that begin and end with either 0 or 1

Options :

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

Question Number : 24 Question Id : 13199224 Question Type : MCQ Option Shuffling : No Correct Marks : 1 Wrong Marks : 0

Identify the xlink attribute that defines the URL to link to?

(1) xlink:href

(2) xlink:url

(3) xlink:src

(4) xlink:path

Options :

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

Question Number : 25 Question Id : 13199225 Question Type : MCQ Option Shuffling : No Correct Marks : 1 Wrong Marks : 0

A pushdown automation employs which of the following data structure?

(1) Queue

(2) Linked list

(3) Hash table

(4) Stack

Options :

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

Question Number : 26 Question Id : 13199226 Question Type : MCQ Option Shuffling : No Correct Marks : 1 Wrong Marks : 0

Consider the following grammar G:

$S \rightarrow bS/aA/b$

$A \rightarrow bA/aB$

$B \rightarrow bB/aS/a$

Let $N_a(\omega)$ and $N_b(\omega)$ denote the number of a's and b's in a string ω respectively. The language $L(G) \leq \{a,b\}^+$ generated by G is

(1) $\{\omega: N_a(\omega) > 3\, N_b(\omega)\}$

(2) $\{\omega: N_b(\omega) > 3\, N_a(\omega)\}$

(3) $\{\omega: N_a(\omega) = 3k, K \in \{0, 1, 2, ...\}\}$

(4) $\{\omega: N_b(\omega) = 3k, K \in \{0, 1, 2, ...\}\}$

Options :

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

Question Number : 27 Question Id : 13199227 Question Type : MCQ Option Shuffling : No Correct Marks : 1 Wrong Marks : 0

Which one of the following problems is undecidable?

(1) Deciding if a given context-free grammar is ambiguous

(2) Deciding if a given string is generated by a given context-free grammar

(3) Deciding if the language generated by a given context-free grammar is empty

(4) Deciding if the language generated by a given context-free grammar is finite

Options :

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

Question Number : 28 Question Id : 13199228 Question Type : MCQ Option Shuffling : No Correct Marks : 1 Wrong Marks : 0

S - > aSa | bSb | a| b;

The language generated by the above grammar over the alphabet {a, b} is the set of

(1) All palindromes

(2) All odd length palindromes

(3) Strings that begin and end with same symbol

(4) All even length palindromes

Options :

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

Question Number : 29 Question Id : 13199229 Question Type : MCQ Option Shuffling : No Correct Marks : 1 Wrong Marks : 0

Which of the following is not performed during compilation?

(1) Type checking

(2) Symbol table management

(3) Dynamic memory allocation

(4) Inline expansion

Options :

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

Question Number : 30 Question Id : 13199230 Question Type : MCQ Option Shuffling : No Correct Marks : 1 Wrong Marks : 0

Topdown parser creates the nodes of the parse tree in _____

(1) Level order

(2) Post order

(3) Pre order

(4) In order

Options :

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

Question Number : 31 Question Id : 13199231 Question Type : MCQ Option Shuffling : No Correct Marks : 1 Wrong Marks : 0

The initial configuration of shift reduces parser in stack and input will be _____

(1) $, $

(2) $S, $

(3) $w, $

(4) $, w $

Note: S is the start symbol, w is the input string

Options :

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

Question Number : 32 Question Id : 13199232 Question Type : MCQ Option Shuffling : No Correct Marks : 1 Wrong Marks : 0

LR parser is an example of _____

(1) Shift reduce parser

(2) Top down parser

(3) Predictive parser

(4) Recursive descent parser

Options :

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

Question Number : 33 Question Id : 13199233 Question Type : MCQ Option Shuffling : No Correct Marks : 1 Wrong Marks : 0

The value of a synthesized attribute at a parse tree node depends on _____

(1) Attributes at the siblings only

(2) Attributes at parent node only

(3) Attributes at children nodes only

(4) Attributes of both parent and siblings

Options :

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

Question Number : 34 Question Id : 13199234 Question Type : MCQ Option Shuffling : No Correct Marks : 1 Wrong Marks : 0

The bottom up parser generates _____

(1) Right most derivation

(2) Left most derivation

(3) Right most derivation in reverse

(4) Left most derivation in reverse

Options :

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

Question Number : 35 Question Id : 13199235 Question Type : MCQ Option Shuffling : No Correct Marks : 1 Wrong Marks : 0

In compilers, the phase which recognises keywords is _____

(1) Syntax analysis

(2) Code generation

(3) Lexical analysis

(4) Semantic analysis

Options :

1. 1
2. 2

3. 3
4. 4

Question Number : 36 Question Id : 13199236 Question Type : MCQ Option Shuffling : No Correct Marks : 1 Wrong Marks : 0

Consider the grammar

$E \rightarrow TE^1$

$E^1 \rightarrow +TE^1/\in$

$T \rightarrow FT^1$

$T^1 \rightarrow KFT^1/\in$

$F \rightarrow (E)/id$

Which one is follow (F)?

(1) { +,), $ } **(2) { +, (,), * }**

(3) {*,), $ } **(4) { +, *,), $ }**

Options :

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

Question Number : 37 Question Id : 13199237 Question Type : MCQ Option Shuffling : No Correct Marks : 1 Wrong Marks : 0

Suppose P, Q and R are cooperative processes satisfying mutual exclusion condition. If the process Q is executing in its critical section, then

(1) 'P' executes in its critical section

(2) 'R' executes in its critical section

(3) Neither 'P' nor 'Q' executes in their critical sections

(4) Both 'P' and 'R' execute in critical section

Options :

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

Question Number : 38 Question Id : 13199238 Question Type : MCQ Option Shuffling : No Correct Marks : 1 Wrong Marks : 0

Which of the following need not be necessarily saved on a context switch between processes?

(1) General Purpose Registers

(2) Translation Look Aside Buffer

(3) Program Counter

(4) Accumulator

Options :

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

Question Number : 39 Question Id : 13199239 Question Type : MCQ Option Shuffling : No Correct Marks : 1 Wrong Marks : 0

A process executes the following code:

```
fork ( );
fork ( );
fork ( );
```

The total number of child processes created is

(1) 3 (2) 4

(3) 7 (4) 8

Options :

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

Question Number : 40 Question Id : 13199240 Question Type : MCQ Option Shuffling : No Correct Marks : 1 Wrong Marks : 0

A system uses FIFO policy for page replacement. It has 4 page frames with no pages loaded to begin with. The system first accesses 100 distinct pages in some order and then accesses the same 100 pages, but now in the reverse order. How many page faults will occur?

(1) 196

(2) 192

(3) 197

(4) 195

Options :

1. 1
2. 2

3. 3
4. 4

Question Number : 41 Question Id : 13199241 Question Type : MCQ Option Shuffling : No Correct Marks : 1 Wrong Marks : 0

In which of the following page replacement policies, Belady's anomaly may occur?

(1) LRU

(2) MRU

(3) FIFO

(4) Optimal

Options :

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

Question Number : 42 Question Id : 13199242 Question Type : MCQ Option Shuffling : No Correct Marks : 1 Wrong Marks : 0

The data blocks of a very large file in the unix file system are allocated using

(1) Indexed allocation

(2) Linked allocation

(3) Contiguous allocation

(4) An extension of indexed allocation

Options :

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

Question Number : 43 Question Id : 13199243 Question Type : MCQ Option Shuffling : No Correct Marks : 1 Wrong Marks : 0

The disk access requests of the form (request id, cylinder number) that are present in the disk scheduler queue at a given time.

(A, 155), (B, 85), (C, 110), (D, 30), (E, 115)

Assume the head is positioned at cylinder 100. The scheduler follows Shortest Seek Time First scheduling policy to serve the requests.

Which one of the following statements is FALSE?

(1) B is serviced after D, but before E

(2) C is serviced before A

(3) E is serviced before A

(4) The head reverses its direction of movement between serving of B and A

Options :

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

Question Number : 44 Question Id : 13199244 Question Type : MCQ Option Shuffling : No Correct Marks : 1 Wrong Marks : 0

For system protection, a process should access

(1) All the resources

(2) Few resources but authorization is not required

(3) Only those resources for which it has authorization

(4) All of the above

Options :

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

Question Number : 45 Question Id : 13199245 Question Type : MCQ Option Shuffling : No Correct Marks : 1 Wrong Marks : 0

Suppose a system has 12 instances of some resources with *n* processes competing for that resource.

Each process may require 4 instances of the resource.

The maximum value of *n* for which the system never enters into deadlock is

(1) 3

(2) 4

(3) 5

(4) 6

Options :

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

Question Number : 46 Question Id : 13199246 Question Type : MCQ Option Shuffling : No Correct Marks : 1 Wrong Marks : 0

In DBMS, that executes in response to certain actions on the table such as insertion, deletion or updation of data is called as

(1) Stored procedure

(2) Triggers

(3) Views

(4) Entity

Options :

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

Question Number : 47 Question Id : 13199247 Question Type : MCQ Option Shuffling : No Correct Marks : 1 Wrong Marks : 0

In a 'many-to-many' relationship, which of the following is required to model this relationship in a relational database?

(1) A composite primary key

(2) A junction table

(3) A foreign key constraint

(4) An index

Options :

1. 1
2. 2

3. 3
4. 4

Question Number : 48 Question Id : 13199248 Question Type : MCQ Option Shuffling : No Correct Marks : 1 Wrong Marks : 0

Lossless join property ensures that

(1) Data can be reconstructed exactly after decomposition

(2) The join operation increases data redundancy

(3) Data is lost during normalization

(4) The join operation reduces query performance

Options :

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

Question Number : 49 Question Id : 13199249 Question Type : MCQ Option Shuffling : No Correct Marks : 1 Wrong Marks : 0

Which of the following is NOT a type of integrity constraint in a relational database?

(1) Structural Integrity

(2) Domain Integrity

(3) Semantic Integrity

(4) Referential Integrity

Options :

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

Question Number : 50 Question Id : 13199250 Question Type : MCQ Option Shuffling : No Correct Marks : 1 Wrong Marks : 0

Given the basic ER and relational models, which of the following is INCORRECT?

(1) An attribute of an entity can be composite

(2) An attribute of an entity can have more than one value

(3) In a row of a relational table, an attribute can have exactly one value or a NULL value

(4) In a row of a relational table, an attribute can have more than one value

Options :

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

Question Number : 51 Question Id : 13199251 Question Type : MCQ Option Shuffling : No Correct Marks : 1 Wrong Marks : 0

The process of selecting the data storage and data access characteristics of the database is known as

(1) Testing phase

(2) Logical database design

(3) Physical database design

(4) Requirements collection phase

Options :

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

Question Number : 52 Question Id : 13199252 Question Type : MCQ Option Shuffling : No Correct Marks : 1 Wrong Marks : 0

Which of the following is used to define database schema?

(1) DDL **(2) DCL**

(3) DML **(4) DUL**

Options :

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

Question Number : 53 Question Id : 13199253 Question Type : MCQ Option Shuffling : No Correct Marks : 1 Wrong Marks : 0

Which is the function of on-delete cascade?

(1) It is used to execute sub-queries in the FROM clause

(2) It is used to delete a tuple in a table

(3) It is used to specify the precise attribute that needs to be deleted in a single relation

(4) It is used to preserve referential integrity in a relation

Options :

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

Question Number : 54 Question Id : 13199254 Question Type : MCQ Option Shuffling : No Correct Marks : 1 Wrong Marks : 0

Which of the following are introduced to reduce the overheads caused by the log-based recovery?

(1) Locks

(2) Indices

(3) Checkpoints

(4) Deadlocks

Options :

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

Question Number : 55 Question Id : 13199255 Question Type : MCQ Option Shuffling : No Correct Marks : 1 Wrong Marks : 0

Data used during the execution of a transaction cannot be used by another transaction until the previous transaction is completed is known as

(1) Durability

(2) Consistency

(3) Atomicity

(4) Isolation

Options :

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

Question Number : 56 Question Id : 13199256 Question Type : MCQ Option Shuffling : No Correct Marks : 1 Wrong Marks : 0

B+ trees are considered BALANCED because

(1) The number of records in any two leaf nodes differ by at most 1

(2) The lengths of the paths from the root to all leaf nodes are all equal

(3) The lengths of the paths from the root to all leaf nodes differ from each other by at most 1

(4) The number of children of any two non-leaf sibling nodes differ by at most 1

Options :

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

Question Number : 57 Question Id : 13199257 Question Type : MCQ Option Shuffling : No Correct Marks : 1 Wrong Marks : 0

Updating the value of the view

(1) Will not affect the relation from which it is defined

(2) Will affect the relation from which it is defined

(3) Will not change the view definition

(4) Returns error

Options :

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

Question Number : 58 Question Id : 13199258 Question Type : MCQ Option Shuffling : No Correct Marks : 1 Wrong Marks : 0

Which lock allows the concurrent transactions to access different rows of the same table?

(1) Row-level lock

(2) Database-level lock

(3) Page-level lock

(4) Table-level lock

Options :

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

Question Number : 59 Question Id : 13199259 Question Type : MCQ Option Shuffling : No Correct Marks : 1 Wrong Marks : 0

Consider the given query:

CREATE TABLE student (USN VARCHAR (20), Name VARCHAR (20), Fees NUMERIC);

In order to ensure that the value of fees is non-negative, which of the following should be used?

(1) Check (Fees > 0)

(2) Check (Fees < 0)

(3) Alter (Fees > 0)

(4) Alter (Fees < 0)

Options :

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

Question Number : 60 Question Id : 13199260 Question Type : MCQ Option Shuffling : No Correct Marks : 1 Wrong Marks : 0

To add a column named "Email" of type VARCHAR to an existing table named "Users", which SQL statement is correct?

(1) ALTER TABLE Users ADD COLUMN Email VARCHAR

(2) ALTER TABLE Users ADD Email VARCHAR

(3) UPDATE TABLE Users ADD Email VARCHAR

(4) INSERT INTO Users (Email) VALUES ('VARCHAR')

Options :

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

Question Number : 61 Question Id : 13199261 Question Type : MCQ Option Shuffling : No Correct Marks : 1 Wrong Marks : 0

Which one of the following is NOT a client server application?

(1) Internet chat

(2) PING

(3) Web browsing

(4) Email

Options :

1. 1
2. 2

3. 3
4. 4

Question Number : 62 Question Id : 13199262 Question Type : MCQ Option Shuffling : No Correct Marks : 1 Wrong Marks : 0

Which of the following fields in IPv4 datagram is not related to fragmentation?

(1) Type of service

(2) Fragment offset

(3) Flags

(4) Identification

Options :

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

Question Number : 63 Question Id : 13199263 Question Type : MCQ Option Shuffling : No Correct Marks : 1 Wrong Marks : 0

When data and acknowledgement are sent together in the same frame, it is called as

(1) Piggy packing

(2) Piggy backing

(3) Back packing

(4) Good packing

Options :

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

Question Number : 64 Question Id : 13199264 Question Type : MCQ Option Shuffling : No Correct Marks : 1 Wrong Marks : 0

Consider a link with a packet loss probability of 0.2. What is the expected number of transmissions it would take to transfer 200 packets given that the stop and wait protocol is used?

(1) 125

(2) 250

(3) 225

(4) 150

Options :

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

Question Number : 65 Question Id : 13199265 Question Type : MCQ Option Shuffling : No Correct Marks : 1 Wrong Marks : 0

Consider the resolution of the domain name www.bangalore.org.in by a DNS resolver. Assume that no resource records are cached any where across the DNS servers and that an iterative query mechanism is used in the resolution. The number of DNS query response pairs involved in completely resolving the domain name is _____

(1) 3

(2) 4

(3) 5

(4) 7

Options :

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

Question Number : 66 Question Id : 13199266 Question Type : MCQ Option Shuffling : No Correct Marks : 1 Wrong Marks : 0

Which of the following devices use logical addressing system?

(1) Router

(2) Switch

(3) Hub

(4) Bridge

Options :

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

Question Number : 67 Question Id : 13199267 Question Type : MCQ Option Shuffling : No Correct Marks : 1 Wrong Marks : 0

Which of the following transport layer protocols is used to support electronic mail?

(1) UDP

(2) TCP

(3) SMTP

(4) ICMP

Options :

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

Question Number : 68 Question Id : 13199268 Question Type : MCQ Option Shuffling : No Correct Marks : 1 Wrong Marks : 0

Range of IP address from 224.0.0.0 to 239.255.255.255 are

(1) Reserved for loopback

(2) Reserved for broadcast

(3) Used for multicast communication

(4) Reserved for future addressing

Options :

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

Question Number : 69 Question Id : 13199269 Question Type : MCQ Option Shuffling : No Correct Marks : 1 Wrong Marks : 0

In a packet switching network, packets are routed from source to destination along a single path having two intermediate nodes. If the message size is 24 bytes and each packet contains a header of 3 bytes, then the optimum packet size is

(1) 9

(2) 4

(3) 7

(4) 6

Options :

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

Question Number : 70 Question Id : 13199270 Question Type : MCQ Option Shuffling : No Correct Marks : 1 Wrong Marks : 0

Which of the following is not associated with the session layer?

(1) Dialog control

(2) Token management

(3) Semantics of the information transmitted

(4) Synchronization

Options :

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

Question Number : 71 Question Id : 13199271 Question Type : MCQ Option Shuffling : No Correct Marks : 1 Wrong Marks : 0

An analog signal has a bit rate of 6000 bps and a baud rate of 2000 baud. How many data elements are carried by each signal element?

(1) 0.336 bits/baud

(2) 3 bits/baud

(3) 1,20,00,000 bits/baud

(4) 55 bits/baud

Options :

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

Question Number : 72 Question Id : 13199272 Question Type : MCQ Option Shuffling : No Correct Marks : 1 Wrong Marks : 0

The design issue of Data link Layer in OSI reference model is

(1) Framing

(2) Representation of bits

(3) Synchronization of bits

(4) Connection control

Options :

1. 1
2. 2

3. 3
4. 4

Question Number : 73 Question Id : 13199273 Question Type : MCQ Option Shuffling : No Correct Marks : 1 Wrong Marks : 0

Which of the following transmission directions listed is not a legitimate channel?

(1) Half duplex

(2) Simplex

(3) Double duplex

(4) Full duplex

Options :

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

Question Number : 74 Question Id : 13199274 Question Type : MCQ Option Shuffling : No Correct Marks : 1 Wrong Marks : 0

Which one is the correct order of phases in JSP lifecycle?

(1) Initialization, Cleanup, Compilation, Execution

(2) Initialization, Compilation, Cleanup, Execution

(3) Compilation, Initialization, Execution, Cleanup

(4) Cleanup, Compilation, Initialization, Execution

Options :

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

Question Number : 75 Question Id : 13199275 Question Type : MCQ Option Shuffling : No Correct Marks : 1 Wrong Marks : 0

In a DTD, what is the difference between CDATA and PCDATA?

(1) You can only use CDATA for attributes

(2) CDATA works on any computer, PCDATA only works on PCs.

(3) PCDATA will be treated as general XML input while CDATA will be treated as a string

(4) You can't use characters like & and $ in CDATA.

Options :

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

Question Number : 76 Question Id : 13199276 Question Type : MCQ Option Shuffling : No Correct Marks : 1 Wrong Marks : 0

Describe the HTML tag that is used to insert an image.

(1) < img url = "myimage.jpg"/>

(2) < img src = "myimage.jpg"/>

(3) < img alt = "myimage.jpg"/>

(4) < img link = "htmllogo.jpg"/>

Options :

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

Question Number : 77 Question Id : 13199277 Question Type : MCQ Option Shuffling : No Correct Marks : 1 Wrong Marks : 0

Which technology provides the flexibility to swap between XML processors with no application code changes?

(1) JAAS

(2) SAX

(3) XSLT

(4) JAXP

Options :

1. 1

2. 2
3. 3
4. 4

Question Number : 78 Question Id : 13199278 Question Type : MCQ Option Shuffling : No Correct Marks : 1 Wrong Marks : 0

Which of the following is the correct way to send mail in HTML?

(1) <a href = "xyz@mail.com">

(2) <a href = "mailto:xyz@mail.com">

(3) <mail_to = "xyz@mail.com">

(4) <send_mail = "xyz@mail.com">

Options :

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

Question Number : 79 Question Id : 13199279 Question Type : MCQ Option Shuffling : No Correct Marks : 1 Wrong Marks : 0

Which one of the following controls communication between tiers in J2EE multitiers architecture?

(1) API

(2) ACL

(3) JDBC

(4) RMI

Options :

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

Question Number : 80 Question Id : 13199280 Question Type : MCQ Option Shuffling : No Correct Marks : 1 Wrong Marks : 0

Which of the following is not a valid data type in XML schema?

(1) boolean

(2) string

(3) float

(4) date

Options :

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

Question Number : 81 Question Id : 13199281 Question Type : MCQ Option Shuffling : No Correct Marks : 1 Wrong Marks : 0

The partial differential equation obtained by eliminating the arbitrary constants a and b from the relation $z = (x - a)(y - b)$ is

(1) $z = pq$

(2) $z = p + q$

(3) $z = p/q$

(4) $z = p - q$

Options :

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

Question Number : 82 Question Id : 13199282 Question Type : MCQ Option Shuffling : No Correct Marks : 1 Wrong Marks : 0

The vector $\vec{F}$ is said to be irrotational if

(1) div $\vec{F} = 0$

(2) curl $\vec{F} = 0$

(3) curl $\vec{F} \neq 0$

(4) None of the above

Options :

1. 1

2. 2
3. 3
4. 4

Question Number : 83 Question Id : 13199283 Question Type : MCQ Option Shuffling : No Correct Marks : 1 Wrong Marks : 0

If $f(t) = e^{-t} t^2$, then $\mathcal{L}[f(t)]$ is

(1) $2/(s+1)^2$ (2) $2/(s+1)^3$

(3) $2/(s-1)^3$ (4) $2/(s-1)^2$

Options :

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

Question Number : 84 Question Id : 13199284 Question Type : MCQ Option Shuffling : No Correct Marks : 1 Wrong Marks : 0

The eigen vector corresponding to $\lambda = 1$ of the matrix $A = \begin{bmatrix} 2 & 2 \\ 1 & 3 \end{bmatrix}$ is

(1) $[2 \ -1]^1$

(2) $[2 \ 1]^1$

(3) $[4 \ 1]^1$

(4) $[1 \ -1]^1$

Options :

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

Question Number : 85 Question Id : 13199285 Question Type : MCQ Option Shuffling : No Correct Marks : 1 Wrong Marks : 0

The particular integral of $(D^2 + 1)\, y = \sin 2x$ is

(1) $\frac{1}{3}\sin 2x$

(2) $\frac{1}{3}\cos 2x$

(3) $\left(\frac{-1}{3}\right)\cos 2x$

(4) $\left(\frac{-1}{3}\right)\sin 2x$

Options :

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

Question Number : 86 Question Id : 13199286 Question Type : MCQ Option Shuffling : No Correct Marks : 1 Wrong Marks : 0

If $\frac{dy}{dx} = x + y$, $y(0) = 1$, $h = 0.2$, by Runge-Kutta method $K_1 = 0.2$, $K_2 = 0.24$, $K_3 = 0.244$, $K_4 = 0.2888$, then the approximate value of y at $x = 0.2$ is

(1) 1.2428

(2) 0.2428

(3) 1.1621

(4) 1.4864

Options :

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

Question Number : 87 Question Id : 13199287 Question Type : MCQ Option Shuffling : No Correct Marks : 1 Wrong Marks : 0

The mean of binomial distribution with n observations and probability of success p is

(1) pq **(2) np**

(3) $\sqrt{np}$ **(4) $\sqrt{pq}$**

Options :

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

Question Number : 88 Question Id : 13199288 Question Type : MCQ Option Shuffling : No Correct Marks : 1 Wrong Marks : 0

In the Fourier series expansion of $f(x) = x^2, -\pi < x < \pi$, the Fourier co-efficient b_n is

(1) 1/n **(2) 0**

(3) $1/n^2$ **(4) 1**

Options :

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

Question Number : 89 Question Id : 13199289 Question Type : MCQ Option Shuffling : No Correct Marks : 1 Wrong Marks : 0

The word "Laughed" is pronounced as

(1) /La:ft/

(2) /La:fd/

(3) /Laft/

(4) /Lafd/

Options :

1. 1
2. 2
3. 3

4. 4

Question Number : 90 Question Id : 13199290 Question Type : MCQ Option Shuffling : No Correct Marks : 1 Wrong Marks : 0

Pure vowels are also known as

(1) Dipthongs

(2) Monophthongs

(3) Triphthongs

(4) Monothongs

Options :

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

Question Number : 91 Question Id : 13199291 Question Type : MCQ Option Shuffling : No Correct Marks : 1 Wrong Marks : 0

Choose the correct order of the parts given below to make it a meaningful sentence

i. not only for

ii. but also for

iii. lumbering

iv. construction purposes

v. as an occupation

vi. on modern lines

vii. the manufacture of wood pulp, paper, resins etc.

viii. owing to the great demand for timber

ix. has developed

(1) iii, ix, vi, v, viii, i, iv, ii, vii

(2) iii, viii, ix, v, iv, vii, ii, i, vi

(3) iii, v, ix, vi, viii, i, iv, ii, vii

(4) v, iii, ix, vi, viii, i, vii, ii, iv

Options :

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

Question Number : 92 Question Id : 13199292 Question Type : MCQ Option Shuffling : No Correct Marks : 1 Wrong Marks : 0

Choose the word or phrase which is most nearly opposite in meaning to the word "JEOPARDISE"

(1) Help

(2) Encourage

(3) Take care

(4) Preserve

Options :

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

Question Number : 93 Question Id : 13199293 Question Type : MCQ Option Shuffling : No Correct Marks : 1 Wrong Marks : 0

Fill in the blank with suitable prepositions from the alternatives given under each sentence.

"During the course of speech, the Principal enlarged _____ the need of improving college library"

(1) upon (2) to

(3) in (4) too

Options :

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

Question Number : 94 Question Id : 13199294 Question Type : MCQ Option Shuffling : No Correct Marks : 1 Wrong Marks : 0

Identify the grammatical error in the given sentence.

In this way nuclear fission / or the splitting / of the atom / have been achieved.

a b c d

(1) a (2) b

(3) c (4) d

Options :

1. 1
2. 2

3. 3
4. 4

Question Number : 95 Question Id : 13199295 Question Type : MCQ Option Shuffling : No Correct Marks : 1 Wrong Marks : 0

The range of index for an array of size 'n' is _____

(1) 0 to n

(2) 1 to n

(3) 0 to n – 1

(4) 1 to n – 1

Options :

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

Question Number : 96 Question Id : 13199296 Question Type : MCQ Option Shuffling : No Correct Marks : 1 Wrong Marks : 0

What is the output of the following program?

```
# include < stdio.h >
void main ( )
{
   int x = 1, y = 1, z;
   z = x ++  +y;
   printf("x = %d, y = %d", x, y);
}
```

(1) x = 1, y = 1

(2) x = 2, y = 1

(3) x = 1, y = 2

(4) x = 2, y = 2

Options :

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

Question Number : 97 Question Id : 13199297 Question Type : MCQ Option Shuffling : No Correct Marks : 1 Wrong Marks : 0

Which of the following is a Unary operator in C Program?

(1) & **(2) &&**

(3) < < **(4) size of ( )**

Options :

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

Question Number : 98 Question Id : 13199298 Question Type : MCQ Option Shuffling : No Correct Marks : 1 Wrong Marks : 0

Which of the following sorting algorithms is also called sinking sort?

(1) Selection sort

(2) Bubble sort

(3) Insertion sort

(4) Merge sort

Options :

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

Question Number : 99 Question Id : 13199299 Question Type : MCQ Option Shuffling : No Correct Marks : 1 Wrong Marks : 0

What is the output of the following C program?

```
# include < stdio.h >
# include < string.h >
void main ( )
{
   char str 1[ ] = "bengaluru";
   char str 2[ ] = "bengaluru";
   if (strcmp (str1, str2))
            printf("equal");
   else
            printf("Not equal");
}
```

(1) Equal

(2) Not equal

(3) Compilation error

(4) Depends on the compiler

Options :

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

Question Number : 100 Question Id : 131992100 Question Type : MCQ Option Shuffling : No Correct Marks : 1 Wrong Marks : 0

In a program, if switch statement is used, then

(1) default case, if used, should be the last case

(2) default case, if used, can be placed anywhere

(3) default case, if used, should be the first case

(4) default case is mandatory

Options :

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