

Question Paper Preview

Notations :

- 1.Options shown in green color and with ✓ icon are correct.
- 2.Options shown in red color and with ✗ icon are incorrect.

Question Paper Name :	M Sc Computer Science 09th Aug 2025 Shift 2
Subject Name :	M.Sc. Computer Science
Creation Date :	2025-08-09 15:56:31
Duration :	90
Total Marks :	100
Display Marks:	No
Change Font Color :	No
Change Background Color :	No
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M.Sc. Computer Science

Group Number :	1
Group Id :	73368780
Group Maximum Duration :	0
Group Minimum Duration :	90
Show Attended Group? :	No
Edit Attended Group? :	No
Break time :	0
Group Marks :	100

PART A

Section Id :	733687151
Section Number :	1
Section type :	Online
Mandatory or Optional :	Mandatory
Number of Questions :	100
Number of Questions to be attempted :	100
Section Marks :	100
Maximum Instruction Time :	0
Sub-Section Number :	1
Sub-Section Id :	733687184
Question Shuffling Allowed :	Yes

Question Number : 1 Question Id : 7336877985 Question Type : MCQ Option Shuffling : Yes
Correct Marks : 1 Wrong Marks : 0

In C, what will be the output of the following code?

```
int x = 5;  
printf("%d %d %d", x, x++, ++x);
```

Options :

Undefined behaviour due to sequence points

1. ✓

5 5 7

2. ✗

5 6 7

3. ✗

7 6 7

4. ✗

Question Number : 2 Question Id : 7336877986 Question Type : MCQ Option Shuffling : Yes
Correct Marks : 1 Wrong Marks : 0

Which statement about storage classes is true

Options :

auto variables retain values between function calls

1. ✗

static variables have block scope but static lifetime

2. ✓

register variables can always be addressed via pointers

3. ✗

extern variables are local to a translation unit

4. ✗

Question Number : 3 Question Id : 7336877987 Question Type : MCQ Option Shuffling : Yes
Correct Marks : 1 Wrong Marks : 0

What is the result of sizeof("abc") in C?

Options :

3

1. ✗

2. ✓ 4

3. ✗ 5

4. ✗ Depends on compiler

Question Number : 4 Question Id : 7336877988 Question Type : MCQ Option Shuffling : Yes
Correct Marks : 1 Wrong Marks : 0

What will be the value of x after the following code?

```
int x = 10 ;  
int *p = &x ;  
(*p)++ ;  
++(*p) ;
```

Options :

1. ✗ 10

2. ✗ 11

3. ✓ 12

4. ✗ 13

Question Number : 5 Question Id : 7336877989 Question Type : MCQ Option Shuffling : Yes
Correct Marks : 1 Wrong Marks : 0

Which of these conversions can cause data loss in C?

Options :

1. ✗ int to long

2. ✗ float to double

3. ✓ double to float

unsigned int to long

4. ✖

Question Number : 6 Question Id : 7336877990 Question Type : MCQ Option Shuffling : Yes
Correct Marks : 1 Wrong Marks : 0

What is the output of the following?

```
printf ("%d", sizeof('A')) ;
```

Options :

1. ✖ 1

2. ✖ 2

3. ✔ 4

Implementation dependent

4. ✖

Question Number : 7 Question Id : 7336877991 Question Type : MCQ Option Shuffling : Yes
Correct Marks : 1 Wrong Marks : 0

Which C library function is safest for copying strings to avoid overflow ?

Options :

1. ✖ strcpy

2. ✔ strncpy

3. ✖ sprintf

4. ✖ gets

Question Number : 8 Question Id : 7336877992 Question Type : MCQ Option Shuffling : Yes
Correct Marks : 1 Wrong Marks : 0

What does calloc() do differently compared to malloc()?

Options :

1. ✖ Allocates zero bytes
2. ✔ Allocates memory and initializes to zero
3. ✖ Allocates contiguous memory without initialization
4. ✖ Allocates non-contiguous blocks

Question Number : 9 Question Id : 7336877993 Question Type : MCQ Option Shuffling : Yes
Correct Marks : 1 Wrong Marks : 0

Which of the following can be declared but not defined in C?

Options :

1. ✖ Variables
2. ✔ Functions
3. ✖ Structures
4. ✖ Enumerations

Question Number : 10 Question Id : 7336877994 Question Type : MCQ Option Shuffling : Yes
Correct Marks : 1 Wrong Marks : 0

In C, what is the default return type of a function if not specified ?

Options :

1. ✖ void
2. ✔ int

3. ✖ char

4. ✖ undefined

Question Number : 11 Question Id : 7336877995 Question Type : MCQ Option Shuffling : Yes
Correct Marks : 1 Wrong Marks : 0

In recursion, which storage class is most commonly used for function variables by default?

Options :

1. ✖ static

2. ✔ auto

3. ✖ register

4. ✖ extern

Question Number : 12 Question Id : 7336877996 Question Type : MCQ Option Shuffling : Yes
Correct Marks : 1 Wrong Marks : 0

Which operator cannot be overloaded in C

Options :

1. ✖ +

2. ✖ =

3. ✖ - >

4. ✔ sizeof

Question Number : 13 Question Id : 7336877997 Question Type : MCQ Option Shuffling : Yes
Correct Marks : 1 Wrong Marks : 0

Which of the following statements about pointers is incorrect?

Options :

`char *p = malloc(10);` allocates space for 10 chars

1. ✖

Pointer arithmetic is scaled by the size of the data type

2. ✖

`void*` pointers can be incremented directly

3. ✔

Pointers to functions can be stored in arrays

4. ✖

Question Number : 14 Question Id : 7336877998 Question Type : MCQ Option Shuffling : Yes

Correct Marks : 1 Wrong Marks : 0

Which expression correctly checks if a file pointer 'fp' has reached EOF?

Options :

`if(feof(fp))`

1. ✔

`if(fgets(fp)==EOF)`

2. ✖

`if(getc(fp)==NULL)`

3. ✖

`if(ferror(fp))`

4. ✖

Question Number : 15 Question Id : 7336877999 Question Type : MCQ Option Shuffling : Yes

Correct Marks : 1 Wrong Marks : 0

Which of the following about arrays is true?

Options :

Arrays are dynamically resizable

1. ✖

Array names can be reassigned like pointers

2. ✖

Arrays always decay to pointers when passed to functions

3. ✔

Arrays can store different data types

4. ✖

Question Number : 16 Question Id : 7336878000 Question Type : MCQ Option Shuffling : Yes
Correct Marks : 1 Wrong Marks : 0

Which statement about default arguments in C++ is TRUE?

Options :

Default arguments must be provided in the function definition only

1. ✖

2. ✔

Default arguments must be provided in the function prototype or definition, but not both

Default arguments can be given for any parameter, regardless of order

3. ✖

Default arguments cannot be used with inline functions

4. ✖

Question Number : 17 Question Id : 7336878001 Question Type : MCQ Option Shuffling : Yes
Correct Marks : 1 Wrong Marks : 0

What does the following code output?

```
int x = 5, y = 10;  
cout << (x++, ++y, x + y);
```

Options :

16

1. ✖

15

2. ✖

3. ✓ 17

Undefined behaviour

4. ✗

Question Number : 18 Question Id : 7336878002 Question Type : MCQ Option Shuffling : Yes
Correct Marks : 1 Wrong Marks : 0

Which statement about virtual destructors is correct?

Options :

They are needed to allow polymorphic deletion via base pointers

1. ✓

They must always be pure virtual

2. ✗

They cannot coexist with non-virtual functions

3. ✗

They are automatically added to every class

4. ✗

Question Number : 19 Question Id : 7336878003 Question Type : MCQ Option Shuffling : Yes
Correct Marks : 1 Wrong Marks : 0

Which of the following correctly declares a friend function inside a class?

Options :

friend void func();

1. ✓

friend: void func();

2. ✗

void friend func();

3. ✗

friend(func());

4. ✗

Question Number : 20 Question Id : 7336878004 Question Type : MCQ Option Shuffling : Yes
Correct Marks : 1 Wrong Marks : 0

In multiple inheritance, if two base classes have a member with the same name, how can the derived class resolve ambiguity?

Options :

Rename the members

1. ✖

Use the scope resolution operator

2. ✔

Declare the member private

3. ✖

Override in derived class

4. ✖

Question Number : 21 Question Id : 7336878005 Question Type : MCQ Option Shuffling : Yes
Correct Marks : 1 Wrong Marks : 0

In C++, what is the difference between delete and delete[]?

Options :

No difference; both free arrays

1. ✖

delete calls destructor for a single object, delete[] for arrays

2. ✔

delete frees memory without destructor

3. ✖

delete[] is only for built-in types

4. ✖

Question Number : 22 Question Id : 7336878006 Question Type : MCQ Option Shuffling : Yes
Correct Marks : 1 Wrong Marks : 0

Which constructor type cannot be inherited directly by derived classes ?

Options :

Default constructor

1. ✖

Parameterized constructor

2. ✖

Copy constructor

3. ✔

All types of Constructors can be inherited

4. ✖

Question Number : 23 Question Id : 7336878007 Question Type : MCQ Option Shuffling : Yes

Correct Marks : 1 Wrong Marks : 0

What will the following code output?

```
int x=0;
cout<< (true ? ++x : x++) ;
```

Options :

0

1. ✖

1

2. ✔

2

3. ✖

Undefined

4. ✖

Question Number : 24 Question Id : 7336878008 Question Type : MCQ Option Shuffling : Yes

Correct Marks : 1 Wrong Marks : 0

In exception handling, what happens if a catch block catches by value instead of reference?

Options :

Exception object is copied

1. ✓

Program terminates

2. ✗

Catch block won't execute

3. ✗

Stack unwinding is skipped

4. ✗

Question Number : 25 Question Id : 7336878009 Question Type : MCQ Option Shuffling : Yes
Correct Marks : 1 Wrong Marks : 0

Which form of polymorphism is resolved at compile time?

Options :

Virtual functions

1. ✗

Templates

2. ✓

Function overriding

3. ✗

Dynamic casting

4. ✗

Question Number : 26 Question Id : 7336878010 Question Type : MCQ Option Shuffling : Yes
Correct Marks : 1 Wrong Marks : 0

What is the main advantage of using inline functions?

Options :

Reduced memory usage

1. ✗

Faster execution by avoiding function call overhead

2. ✓

3. ✖ Ability to overload operators

4. ✖ Improved encapsulation

Question Number : 27 Question Id : 7336878011 Question Type : MCQ Option Shuffling : Yes
Correct Marks : 1 Wrong Marks : 0

What is the difference between `struct` and `class` in C++ by default?

Options :

1. ✖ No difference

2. ✖ Members of struct are private, class are public

3. ✔ Members of struct are public, class are private

4. ✖ Structs cannot have constructors

Question Number : 28 Question Id : 7336878012 Question Type : MCQ Option Shuffling : Yes
Correct Marks : 1 Wrong Marks : 0

Which statement is true about function templates?

Options :

1. ✖ They cannot be overloaded

2. ✖ They must always have one type parameter

3. ✔ They allow type-independent code

They cannot be used with STL

4. ✖

Question Number : 29 Question Id : 7336878013 Question Type : MCQ Option Shuffling : Yes

Correct Marks : 1 Wrong Marks : 0

What happens if a base class pointer pointing to a derived object is deleted without a virtual destructor?

Options :

Only derived destructor is called

1. ✖

Both destructors are called

2. ✖

No destructor is called

3. ✖

Only base destructor is called

4. ✔

Question Number : 30 Question Id : 7336878014 Question Type : MCQ Option Shuffling : Yes

Correct Marks : 1 Wrong Marks : 0

What will the following output?

```
int a=1;  
cout<<(a++,a++,++a);
```

Options :

3

1. ✔

4

2. ✖

5

3. ✖

6

4. ✖

Question Number : 31 Question Id : 7336878015 Question Type : MCQ Option Shuffling : Yes

Correct Marks : 1 Wrong Marks : 0

Which of these is not a property of a virtual function?

Options :

- 1. ✖ Must be a member of a class
- 2. ✔ Can be static
- 3. ✖ Supports runtime polymorphism
- 4. ✖ Can be overridden

Question Number : 32 Question Id : 7336878016 Question Type : MCQ Option Shuffling : Yes
Correct Marks : 1 Wrong Marks : 0

Which of these can be declared but not defined?

Options :

- 1. ✖ Virtual destructor
- 2. ✖ Inline function
- 3. ✖ Template class
- 4. ✔ Pure virtual function

Question Number : 33 Question Id : 7336878017 Question Type : MCQ Option Shuffling : Yes
Correct Marks : 1 Wrong Marks : 0

What happens if a destructor throws an exception during stack unwinding?

Options :

The program terminates by calling `std::terminate()`

1. ✓

The exception is ignored

2. ✗

Stack unwinding continues

3. ✗

Another destructor catches it automatically

4. ✗

Question Number : 34 Question Id : 7336878018 Question Type : MCQ Option Shuffling : Yes
Correct Marks : 1 Wrong Marks : 0

Which stack operation could cause a stack overflow?

Options :

`pop()`

1. ✗

`peek()`

2. ✗

`push()`

3. ✓

`top()`

4. ✗

Question Number : 35 Question Id : 7336878019 Question Type : MCQ Option Shuffling : Yes
Correct Marks : 1 Wrong Marks : 0

What will be the postfix expression for the infix expression $(A+B)*(C-D)$?

Options :

$AB+CD-*$

1. ✓

$AB+C-D*$

2. ✗

$AB+*CD-$

3. ✗

$$A+B*C-D$$

4. ✖

Question Number : 36 Question Id : 7336878020 Question Type : MCQ Option Shuffling : Yes
Correct Marks : 1 Wrong Marks : 0

In circular queues implemented using arrays, how is the 'rear' pointer updated after insertion?

Options :

$$\text{rear} = (\text{rear} + 1)$$

1. ✖

$$\text{rear} = (\text{rear} + 1) \% \text{size}$$

2. ✔

$$\text{rear}++$$

3. ✖

$$\text{rear} = \text{rear} + \text{size}$$

4. ✖

Question Number : 37 Question Id : 7336878021 Question Type : MCQ Option Shuffling : Yes
Correct Marks : 1 Wrong Marks : 0

What is the maximum number of nodes a binary tree of height h (root at height 0) can have?

Options :

$$2^{(h+1)} - 1$$

1. ✔

$$2^h - 1$$

2. ✖

$$h^2$$

3. ✖

$$2^h$$

4. ✖

Question Number : 38 Question Id : 7336878022 Question Type : MCQ Option Shuffling : Yes
Correct Marks : 1 Wrong Marks : 0

Which traversal of a Binary Search Tree (BST) gives elements in ascending order?

Options :

Pre-order

1. ✖

In-order

2. ✔

Post-order

3. ✖

Level-order

4. ✖

Question Number : 39 Question Id : 7336878023 Question Type : MCQ Option Shuffling : Yes
Correct Marks : 1 Wrong Marks : 0

What is the main advantage of threaded binary trees?

Options :

Reduce height of the tree

1. ✖

Reduce node memory

2. ✖

Improve search complexity

3. ✖

Facilitate faster inorder traversal without recursion

4. ✔

Question Number : 40 Question Id : 7336878024 Question Type : MCQ Option Shuffling : Yes
Correct Marks : 1 Wrong Marks : 0

Which data structure is most suitable to implement recursion?

Options :

Queue

1. ✖

2. ✓ Stack

3. ✗ Deque

4. ✗ Linked list

Question Number : 41 Question Id : 7336878025 Question Type : MCQ Option Shuffling : Yes
Correct Marks : 1 Wrong Marks : 0

Which of the following is true for AVL trees?

Options :

1. ✓ Height-balanced BST with balance factor -1, 0, 1

2. ✗ Every level is completely filled

3. ✗ They cannot perform rotations

4. ✗ Average complexity for search is $O(n)$

Question Number : 42 Question Id : 7336878026 Question Type : MCQ Option Shuffling : Yes
Correct Marks : 1 Wrong Marks : 0

Which traversal is used by Breadth First Search (BFS) in graphs?

Options :

1. ✗ Stack-based traversal

2. ✓ Queue-based traversal

3. ✗ Recursion only

Heap-based traversal

4. ✖

Question Number : 43 Question Id : 7336878027 Question Type : MCQ Option Shuffling : Yes

Correct Marks : 1 Wrong Marks : 0

In hashing, load factor is defined as:

Options :

Number of buckets / table size

1. ✖

Number of keys / table size

2. ✔

Number of collisions / table size

3. ✖

Table size / number of keys

4. ✖

Question Number : 44 Question Id : 7336878028 Question Type : MCQ Option Shuffling : Yes

Correct Marks : 1 Wrong Marks : 0

Which of the following is NOT true about depth-first search (DFS)?

Options :

It can be implemented using recursion

1. ✖

It can be implemented using a stack explicitly

2. ✖

It always visits nodes in increasing order

3. ✔

It can detect cycles

4. ✖

Question Number : 45 Question Id : 7336878029 Question Type : MCQ Option Shuffling : Yes

Correct Marks : 1 Wrong Marks : 0

Which of these graph representations uses more memory for sparse graphs?

Options :

Adjacency matrix

1. ✓

Adjacency list

2. ✗

Incidence list

3. ✗

Edge list

4. ✗

Question Number : 46 Question Id : 7336878030 Question Type : MCQ Option Shuffling : Yes

Correct Marks : 1 Wrong Marks : 0

In a min-heap, the smallest element is always :

Options :

At the last level

1. ✗

At the root

2. ✓

At the leftmost leaf

3. ✗

Undefined

4. ✗

Question Number : 47 Question Id : 7336878031 Question Type : MCQ Option Shuffling : Yes

Correct Marks : 1 Wrong Marks : 0

Which type of rotation is used to fix imbalance caused by insertion in the left subtree of the left child of a node in an AVL tree?

Options :

Right rotation

1. ✓

Left rotation

2. ✗

Left-Right rotation

3. ✗

Right-Left rotation

4. ✗

Question Number : 48 Question Id : 7336878032 Question Type : MCQ Option Shuffling : Yes
Correct Marks : 1 Wrong Marks : 0

Which of the following time complexities represents the best case for searching an element in a balanced Binary Search Tree (BST)?

Options :

$O(n \log n)$

1. ✗

$O(n)$

2. ✗

$O(\log n)$

3. ✓

$O(1)$

4. ✗

Question Number : 49 Question Id : 7336878033 Question Type : MCQ Option Shuffling : Yes
Correct Marks : 1 Wrong Marks : 0

Which of the following is NOT a stable sorting algorithm?

Options :

Merge Sort

1. ✗

2. ✖ Bubble Sort

3. ✔ Selection sort

4. ✖ Insertion sort

Question Number : 50 Question Id : 7336878034 Question Type : MCQ Option Shuffling : Yes
Correct Marks : 1 Wrong Marks : 0

What is the worst-case time complexity of Quick Sort?

Options :

1. ✖ $O(n)$

2. ✖ $O(\log n)$

3. ✖ $O(n \log n)$

4. ✔ $O(n^2)$

Question Number : 51 Question Id : 7336878035 Question Type : MCQ Option Shuffling : Yes
Correct Marks : 1 Wrong Marks : 0

Which of the following most accurately describes the difference between a database schema and an instance?

Options :

1. ✖

Schema defines the actual stored data, while instance defines the logical structure

2. ✖ Schema is dynamic and instance is static

Schema is the logical design, while instance is the data at a specific moment

3. ✓

Both schema and instance change frequently

4. ✗

Question Number : 52 Question Id : 7336878036 Question Type : MCQ Option Shuffling : Yes
Correct Marks : 1 Wrong Marks : 0

In the relational model, which statement about superkeys is correct?

Options :

Every key is a superkey, but not every superkey is a key

1. ✓

Superkeys must always consist of a single attribute.

2. ✗

Candidate keys cannot be superkeys

3. ✗

A superkey must be minimal by definition

4. ✗

Question Number : 53 Question Id : 7336878037 Question Type : MCQ Option Shuffling : Yes
Correct Marks : 1 Wrong Marks : 0

In a B+ tree, which of the following is true?

Options :

All keys are stored only in leaf nodes

1. ✓

Internal nodes can store duplicate keys

2. ✗

Leaf nodes are not linked

3. ✗

4. ✖ The root must be a leaf

Question Number : 54 Question Id : 7336878038 Question Type : MCQ Option Shuffling : Yes
Correct Marks : 1 Wrong Marks : 0

Which normal form eliminates partial dependency but may still allow transitive dependency?

Options :

1. ✖ 1NF

2. ✔ 2NF

3. ✖ 3NF

4. ✖ BCNF

Question Number : 55 Question Id : 7336878039 Question Type : MCQ Option Shuffling : Yes
Correct Marks : 1 Wrong Marks : 0

. In SQL, which of the following correctly finds students with no department assigned?

Options :

1. ✖ SELECT * FROM Students WHERE DeptID = NULL;

2. ✔ SELECT * FROM Students WHERE DeptID IS NULL;

3. ✖ SELECT * FROM Students WHERE DeptID != NULL ;

4. ✖ SELECT * FROM Students WHERE DeptID NOT NULL;

Question Number : 56 Question Id : 7336878040 Question Type : MCQ Option Shuffling : Yes
Correct Marks : 1 Wrong Marks : 0

Which of the following anomalies is resolved by 3NF but not necessarily by 2NF?

Options :

Insertion anomaly

1. ✖

Update anomaly

2. ✖

Deletion anomaly

3. ✖

Transitive Dependency

4. ✔

Question Number : 57 Question Id : 7336878041 Question Type : MCQ Option Shuffling : Yes

Correct Marks : 1 Wrong Marks : 0

In timestamp ordering, what happens if a transaction tries to write a data item with a timestamp earlier than the last read timestamp?

Options :

Transaction is aborted

1. ✔

Transaction waits

2. ✖

Data is overwritten

3. ✖

Nothing happens

4. ✖

Question Number : 58 Question Id : 7336878042 Question Type : MCQ Option Shuffling : Yes

Correct Marks : 1 Wrong Marks : 0

What does the Cascading Rollback problem arise from?

Options :

Use of strict two-phase locking

1. ✖

Use of locks held until commit

2. ✖

Reading uncommitted data

3. ✔

Use of timestamp ordering

4. ✖

Question Number : 59 Question Id : 7336878043 Question Type : MCQ Option Shuffling : Yes
Correct Marks : 1 Wrong Marks : 0

Which transaction schedule property guarantees conflict-serializability?

Options :

Recoverability

1. ✖

Two-phase locking

2. ✔

Cascadeless schedules

3. ✖

Strict schedules

4. ✖

Question Number : 60 Question Id : 7336878044 Question Type : MCQ Option Shuffling : Yes
Correct Marks : 1 Wrong Marks : 0

What does the ACID property 'Isolation' ensure ?

Options :

Transactions execute serially

1. ✖

No transaction interferes with another's intermediate results

2. ✔

Changes persist after crash

3. ✖

Database remains in consistent state

4. ✖

Question Number : 61 Question Id : 7336878045 Question Type : MCQ Option Shuffling : Yes
Correct Marks : 1 Wrong Marks : 0

Which concurrency control technique avoids deadlocks entirely?

Options :

Two-phase locking

1. ✖

Wait-Die scheme

2. ✖

Timestamp ordering

3. ✔

Wound-Wait scheme

4. ✖

Question Number : 62 Question Id : 7336878046 Question Type : MCQ Option Shuffling : Yes
Correct Marks : 1 Wrong Marks : 0

Which log-based recovery technique avoids repeating actions of committed transactions?

Options :

Deferred update

1. ✔

Immediate update

2. ✖

Redo logging

3. ✖

Checkpointing

4. ✖

Question Number : 63 Question Id : 7336878047 Question Type : MCQ Option Shuffling : Yes
Correct Marks : 1 Wrong Marks : 0

Which operation is NOT part of relational algebra?

Options :

Selection

1. ✖

Projection

2. ✖

Union

3. ✖

Iteration

4. ✔

Question Number : 64 Question Id : 7336878048 Question Type : MCQ Option Shuffling : Yes
Correct Marks : 1 Wrong Marks : 0

Which recovery feature ensures database can be restored to a consistent state after a crash?

Options :

Redo logs

1. ✖

Undo logs

2. ✖

Checkpointing

3. ✔

Shadow paging

4. ✖

Question Number : 65 Question Id : 7336878049 Question Type : MCQ Option Shuffling : Yes

Correct Marks : 1 Wrong Marks : 0

Which SQL keyword creates a recursive query?

Options :

CONNECT BY

1. ✖

WITH RECURSIVE

2. ✔

RECURSIVE SELECT

3. ✖

NATURAL JOIN

4. ✖

Question Number : 66 Question Id : 7336878050 Question Type : MCQ Option Shuffling : Yes

Correct Marks : 1 Wrong Marks : 0

Which database recovery model avoids undo operations entirely?

Options :

Deferred update

1. ✖

Immediate update

2. ✖

Shadow paging

3. ✔

Checkpoint-only

4. ✖

Question Number : 67 Question Id : 7336878051 Question Type : MCQ Option Shuffling : Yes

Correct Marks : 1 Wrong Marks : 0

Which statement about triggers is true?

Options :

They can only be row-level

1. ✖

They cannot call stored procedures

2. ✖

They are automatically invoked by events

3. ✔

They always require AFTER timing

4. ✖

Question Number : 68 Question Id : 7336878052 Question Type : MCQ Option Shuffling : Yes
Correct Marks : 1 Wrong Marks : 0

Which key uniquely identifies tuples even if NULL values are present?

Options :

Primary Key

1. ✖

Candidate Key

2. ✖

Superkey

3. ✔

Unique Key

4. ✖

Question Number : 69 Question Id : 7336878053 Question Type : MCQ Option Shuffling : Yes
Correct Marks : 1 Wrong Marks : 0

Which functional dependency indicates multivalued dependency?

Options :

$A \rightarrow B$

1. ✖

$A \twoheadrightarrow B$

2. ✔

3. ✖ $A \leftrightarrow B$

4. ✖ $A \subseteq B$

Question Number : 70 Question Id : 7336878054 Question Type : MCQ Option Shuffling : Yes
Correct Marks : 1 Wrong Marks : 0

Which SQL clause is used to filter groups after aggregation?

Options :

1. ✖ WHERE

2. ✔ HAVING

3. ✖ GROUP BY

4. ✖ ORDER BY

Question Number : 71 Question Id : 7336878055 Question Type : MCQ Option Shuffling : Yes
Correct Marks : 1 Wrong Marks : 0

Which of the following best describes the role of the JVM?

Options :

1. ✖ It compiles Java source code to assembly code

2. ✔ It interprets bytecode and manages runtime environment

3. ✖ It only loads Java classes into memory

4. ✖ It is a JDK tool for compilation

Question Number : 72 Question Id : 7336878056 Question Type : MCQ Option Shuffling : Yes

Correct Marks : 1 Wrong Marks : 0

Which statement about constructors in Java is correct?

Options :

1. ✖ Constructors can return a value

Constructors can be abstract

2. ✖

Constructors can be overloaded

3. ✔

Constructors must be static

4. ✖

Question Number : 73 Question Id : 7336878057 Question Type : MCQ Option Shuffling : Yes

Correct Marks : 1 Wrong Marks : 0

Which keyword prevents a method from being overridden in Java?

Options :

super

1. ✖

final

2. ✔

3. ✖ static

abstract

4. ✖

Question Number : 74 Question Id : 7336878058 Question Type : MCQ Option Shuffling : Yes

Correct Marks : 1 Wrong Marks : 0

What is the output of this code?

```
javaCopyEditSystem.out.println(10 + 20 + "30");
```

Options :

1. ✓ 3030
2. ✗ 102030
3. ✗ 3030.0
4. ✗ 3030.0f

Question Number : 75 Question Id : 7336878059 Question Type : MCQ Option Shuffling : Yes
Correct Marks : 1 Wrong Marks : 0

Which exception is checked at compile time?

Options :

1. ✗ NullPointerException
2. ✗ ArithmeticException
3. ✓ IOException
4. ✗ ArrayIndexOutOfBoundsException

Question Number : 76 Question Id : 7336878060 Question Type : MCQ Option Shuffling : Yes
Correct Marks : 1 Wrong Marks : 0

In JAVA, Which of the following is NOT a valid way to create a thread?

Options :

1. ✗ Extend the Thread class
2. ✗ Implement Runnable

Use Callable with ExecutorService

3. ✖

Directly invoke run() on a Thread

4. ✔

Question Number : 77 Question Id : 7336878061 Question Type : MCQ Option Shuffling : Yes
Correct Marks : 1 Wrong Marks : 0

Which statement about the `static` keyword is correct?

Options :

Static variables are shared across all instances

1. ✔

Static methods can access instance variables directly

2. ✖

Static blocks execute after `main()`

3. ✖

Static methods can be overridden

4. ✖

Question Number : 78 Question Id : 7336878062 Question Type : MCQ Option Shuffling : Yes
Correct Marks : 1 Wrong Marks : 0

Which method from Thread class causes the current thread to pause and allow others to execute?

Options :

`sleep()`

1. ✖

`yield()`

2. ✔

`wait()`

3. ✖

4. ✖ notify()

Question Number : 79 Question Id : 7336878063 Question Type : MCQ Option Shuffling : Yes
Correct Marks : 1 Wrong Marks : 0

Which synchronization mechanism is intrinsic to every Java object?

Options :

1. ✖ ReentrantLock

2. ✖ Semaphore

3. ✔ Monitor

4. ✖ CountdownLatch

Question Number : 80 Question Id : 7336878064 Question Type : MCQ Option Shuffling : Yes
Correct Marks : 1 Wrong Marks : 0

Which of these is NOT a valid thread state?

Options :

1. ✖ RUNNABLE

2. ✖ WAITING

3. ✖ TERMINATED

4. ✔ BLOCKING

Question Number : 81 Question Id : 7336878065 Question Type : MCQ Option Shuffling : Yes
Correct Marks : 1 Wrong Marks : 0

Which exception is thrown if a thread tries to wait without owning the monitor?

Options :

InterruptedException

1. ✖

IllegalMonitorStateException

2. ✔

ThreadDeath

3. ✖

TimeoutException

4. ✖

Question Number : 82 Question Id : 7336878066 Question Type : MCQ Option Shuffling : Yes

Correct Marks : 1 Wrong Marks : 0

Which keyword is used to create a constant in Java?

Options :

constant

1. ✖

Static

2. ✖

const

3. ✖

final

4. ✔

Question Number : 83 Question Id : 7336878067 Question Type : MCQ Option Shuffling : Yes

Correct Marks : 1 Wrong Marks : 0

Which of these is NOT a method of Object class?

Options :

getName()

1. ✓

notifyAll()

2. ✗

hashCode()

3. ✗

clone()

4. ✗

Question Number : 84 Question Id : 7336878068 Question Type : MCQ Option Shuffling : Yes
Correct Marks : 1 Wrong Marks : 0

Which layout manager arranges components in a single row or column?

Options :

BorderLayout

1. ✗

FlowLayout

2. ✗

BoxLayout

3. ✓

GridLayout

4. ✗

Question Number : 85 Question Id : 7336878069 Question Type : MCQ Option Shuffling : Yes
Correct Marks : 1 Wrong Marks : 0

Which of the following components belongs to Swing, not AWT?

Options :

JFrame

1. ✓

Button

2. ✗

Label

3. ✖

TextArea

4. ✖

Question Number : 86 Question Id : 7336878070 Question Type : MCQ Option Shuffling : Yes
Correct Marks : 1 Wrong Marks : 0

In XHTML, which of the following statements is true?

Options :

All elements must be closed, but attribute names are optional

1. ✖

All attribute values must be enclosed in quotes

2. ✔

 does not require a closing tag

3. ✖

XHTML allows unclosed tags

4. ✖

Question Number : 87 Question Id : 7336878071 Question Type : MCQ Option Shuffling : Yes
Correct Marks : 1 Wrong Marks : 0

The CSS box model does NOT include which of the following?

Options :

Margin

1. ✖

Padding

2. ✖

Content

3. ✖

Display

4. ✓

Question Number : 88 Question Id : 7336878072 Question Type : MCQ Option Shuffling : Yes
Correct Marks : 1 Wrong Marks : 0

Which JavaScript statement correctly prompts the user for input?

Options :

alert("Enter your name");

1. ✗

confirm("Enter your name");

2. ✗

prompt("Enter your name");

3. ✓

dialog("Enter your name");

4. ✗

Question Number : 89 Question Id : 7336878073 Question Type : MCQ Option Shuffling : Yes
Correct Marks : 1 Wrong Marks : 0

In JavaScript, the continue statement:

Options :

Terminates the loop immediately

1. ✗

Skips the rest of the loop body and moves to the next iteration

2. ✓

Exits from the function entirely

3. ✗

Skips only the current statement

4. ✗

Question Number : 90 Question Id : 7336878074 Question Type : MCQ Option Shuffling : Yes
Correct Marks : 1 Wrong Marks : 0

Which method is used to add a cookie in JavaScript?

Options :

document.createCookie

1. ✖

window.cookie

2. ✖

document.cookie

3. ✔

navigator.setCookie

4. ✖

Question Number : 91 Question Id : 7336878075 Question Type : MCQ Option Shuffling : Yes
Correct Marks : 1 Wrong Marks : 0

What is the purpose of XML Namespaces?

Options :

To avoid element name conflicts

1. ✔

To speed up DOM parsing

2. ✖

To define XML comments

3. ✖

To validate XML using schemas

4. ✖

Question Number : 92 Question Id : 7336878076 Question Type : MCQ Option Shuffling : Yes
Correct Marks : 1 Wrong Marks : 0

What is the default HTTP method used by XMLHttpRequest if none is specified?

Options :

GET

1. ✓

POST

2. ✗

PUT

3. ✗

HEAD

4. ✗

Question Number : 93 Question Id : 7336878077 Question Type : MCQ Option Shuffling : Yes
Correct Marks : 1 Wrong Marks : 0

Which of the following is true about Ajax applications?

Options :

They reload the entire page after every request

1. ✗

They use the Dojo Toolkit for all requests

2. ✗

They communicate with the server asynchronously

3. ✓

They can only transfer JSON, not XML

4. ✗

Question Number : 94 Question Id : 7336878078 Question Type : MCQ Option Shuffling : Yes
Correct Marks : 1 Wrong Marks : 0

Which CSS property controls the stacking order of positioned elements?

Options :

float

1. ✗

2. ✓ z-index

3. ✗ display

4. ✗ position

Question Number : 95 Question Id : 7336878079 Question Type : MCQ Option Shuffling : Yes
Correct Marks : 1 Wrong Marks : 0

Which of these is a valid way to stop event bubbling in JavaScript?

Options :

1. ✗ event.cancelBubble()

2. ✗ return false

3. ✗ event.preventDefault()

4. ✓ event.stopPropagation()

Question Number : 96 Question Id : 7336878080 Question Type : MCQ Option Shuffling : Yes
Correct Marks : 1 Wrong Marks : 0

What does === operator in JavaScript do?

Options :

1. ✗ Converts operands to strings before comparing

2. ✗ Compares values loosely

Compares values and types strictly

3. ✓

Compares only values

4. ✗

Question Number : 97 Question Id : 7336878081 Question Type : MCQ Option Shuffling : Yes
Correct Marks : 1 Wrong Marks : 0

Which of the following is a Boolean object method in JavaScript?

Options :

toString()

1. ✓

parse()

2. ✗

toFixed()

3. ✗

slice()

4. ✗

Question Number : 98 Question Id : 7336878082 Question Type : MCQ Option Shuffling : Yes
Correct Marks : 1 Wrong Marks : 0

Which of the following is true about DTDs?

Options :

They define how XML documents are transformed

1. ✗

They specify the structure and legal elements of XML

2. ✓

They are mandatory for every XML document

3. ✗

They are only supported in HTML documents

4. ✖

Question Number : 99 Question Id : 7336878083 Question Type : MCQ Option Shuffling : Yes

Correct Marks : 1 Wrong Marks : 0

The JavaScript Math.random() function returns:

Options :

A random integer between 0 and 1

1. ✖

A random decimal between 0 and 1

2. ✔

A random integer between 1 and 10

3. ✖

A random decimal between -1 and 1

4. ✖

Question Number : 100 Question Id : 7336878084 Question Type : MCQ Option Shuffling : Yes

Correct Marks : 1 Wrong Marks : 0

Which event occurs when the mouse pointer leaves an element?

Options :

1. ✔ onmouseout

onmouseover

2. ✖

onblur

3. ✖

onleave

4. ✖