Osmania University Common Entrance Test

Question Paper Name:	M Sc Computer Science 15th July 2019 Shift 2
Subject Name:	M.Sc. Computer Science
Creation Date:	2019-07-15 14:55:59
Duration:	90
Total Marks:	100
Display Marks:	No
Share Answer Key With Delivery Engine:	Yes
Actual Answer Key:	Yes

M.Sc. Computer Science

Group Number :	1
Group Id :	34197986
Group Maximum Duration :	0
Group Minimum Duration :	90
Revisit allowed for view? :	No
Revisit allowed for edit? :	No
Break time:	0
Group Marks:	100

PART A

Section Id :	341979127
Section Number :	1
Section type :	Online
Mandatory or Optional:	Mandatory
Number of Questions:	100
Number of Questions to be attempted:	100
Section Marks:	100
Display Number Panel:	Yes
Group All Questions:	No

Sub-Section Number:	1
Sub-Section Id:	341979136
Question Shuffling Allowed :	Yes

Question Number : 1 Question Id : 3419798750 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Which of the following is not an operating system?

Options :

1. LINUX

2. OS/2

3. DB/2

4. WINDOWS

Question Number : 2 Question Id : 3419798751 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

One Mega byte is equal to

Options :

1. 1000 kilo bytes

2. 1024 kilo bytes

3. 1004 kilo bytes

4. 1024 bytes

Question Number : 3 Question Id : 3419798752 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Which of the following is NOT a keyword of C programming?

Options :

1. int

2. real

3. return

4. continue

Question Number : 4 Question Id : 3419798753 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

What is the output of the following C program?

```
#include<stdio.h>
main()
{
        int x;
        x = –3 + 4 * 5 – 6;
        printf("%d\n", x);
}
```

Options :

1. –1
2. –7
3. 0
4. 11

Question Number : 5 Question Id : 3419798754 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

If x = 2, y = 3 and z = 4 then what is the value of the following C-statement?

```
x == (y = z);
```

Options :

1. 0
2. 1
3. 2
4. 3

Question Number : 6 Question Id : 3419798755 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

What is the output of the following C-program?

```
main()
{
        int x = 5, y, z;
        y = x++; z = ++x;
        printf("%d\n", x);
}
```

Options :

1. 5

2. 6

3. 7

4. 8

Question Number : 7 Question Id : 3419798756 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

What is the output of the following C-code?

```
main()
{
        int x = 1, y = 1, z = 1;
        x + = y + = z;
        z = x < y ? y : x;
        printf("%d\n", z);
}
```

Options :

1. 3

2. 2

3. 1

4. 0

Question Number : 8 Question Id : 3419798757 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

What is the output of the following C-code?

```
void main()
{
        int i;
        for(i = 0; i < 10; i++)
        printf("Hello");
}
```

Options :

1. error

2. Hello will be printed 10 times

3. Hello will be printed 9 times

4. Hello will be printed one time

Question Number : 9 Question Id : 3419798758 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

What is the output of the following code?

```
void main()
        {
                int ch = 1;
                switch(ch)
                {
                        case 1: printf("A");
                        case 2: printf("B");
                        break;
                        case 3: printf("C");
                        break;
                }
        }
```

Options :

1. error

2. A

3. AB

4. AC

Question Number : 10 Question Id : 3419798759 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

What is the output of the following?

```
#include<stdio.h>
main()
{
        int x = 1, y = 2;
        if(y < 0) if(y > 0) x = 3;
        else
        x = 5;
        printf("%d\n", x);
}
```

Options :

1. 1

2. 2

3. 3

4. 5

Question Number : 11 Question Id : 3419798760 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

The length of the string NEW DELHI according to C-programming is

Options :

1. 8

2. 9

3. 10

4. 7

Question Number : 12 Question Id : 3419798761 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

An array is defined as follows:

```
int num[2][3] = {{1,2},{3,4},{5,6}};
```

which of the following is true?

Options :

1. num[1][2] is assigned the value 2

2. Assigns a value 4 to num[1][2]

3. Assigns 3 to num[1][2]

4. It is an error

Question Number : 13 Question Id : 3419798762 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

A declaration is defined as follows:

```
int *(*p) (int(*a)[ ]);
```

Which of the following statements is correct?

Options :

1. It defines a pointer to a function that accepts an integer argument and returns an integer.

2. It defines a function that accepts an integer argument and returns a pointer to an integer.

3. It defines a pointer to a function that accepts a pointer to an array of integers as an argument and returns a pointer to an integer.

4. It defines a pointer to a function that accepts an argument which is a pointer to a character returns an integer quantity.

Question Number : 14 Question Id : 3419798763 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Which of the following is a relational operator in C?

Options :

1. !=

2. #

3. !

4. &&

Question Number : 15 Question Id : 3419798764 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

typedef is

Options :

1. a predefined function in C-language

2. an operator in C-language

3. a data type in C-language

4. a keyword in C-language

Question Number : 16 Question Id : 3419798765 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Which of the following is not valid in C++?

Options :

1. //Hello World

2. //World Hello

3. /* Hello World

4. */Hello World/*

Question Number : 17 Question Id : 3419798766 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

What is the output of the following C++ statement?

```
cout << end l << "/t";
```

Options :

1. Produces a new-line character and a tab character.

2. Produces a tab-character only.

3. Produces a message 'end l' and followed by 't'.

4. It is an error.

Question Number : 18 Question Id : 3419798767 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

If all the variables are defined as the type char then what is the output of the following piece of C++ code?

```
a = 'b';
b = 'c';
c = 'a';
cout << a << b << c << 'c'
```

Options :

1. Error

2. b c b c

3. a b b c

4. a b c a

Question Number : 19 Question Id : 3419798768 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

What is the value of the following arithmetic expression of C++?

sqrt(pow(3,2))

Options :

1. 2

2. 3

3. 0

4. error

Question Number : 20 Question Id : 3419798769 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

How many specifiers are present in access specifies in a class in C++?

Options :

1. 1

2. 2

3. 3

4. 4

Question Number : 21 Question Id : 3419798770 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Which of the following is a valid class declaration?

Options :

1. class A {int x;}]

2. class B {}

3. public class A{}

4. object A{int x;}

Question Number : 22 Question Id : 3419798771 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

The data members and functions of a class in C++ are by default _____.

Options :

1. protected

2. private

3. public

4. structural

Question Number : 23 Question Id : 3419798772 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Which operator is used to declare the destructor in C++?

Options :

1. #

2. ~

3. @

4. $

Question Number : 24 Question Id : 3419798773 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

How many types of exception handlings are there in C++?

Options :

1. 1

2. 2

3. 3

4. 4

Question Number : 25 Question Id : 3419798774 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

How many run time error messages associated with exception?

Options :

1. 2

2. 3

3. 4

4. 5

Question Number : 26 Question Id : 3419798775 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Which operator in C++ is used to signify the name space?

Options :

1. Conditional operator

2. Ternary operator

3. Scope operator

4. Unsignal operator

Question Number : 27 Question Id : 3419798776 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

In which of the following, we can not overload the function?

Options :

1. return function

2. caller function

3. called function

4. operator

Question Number : 28 Question Id : 3419798777 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

What is the default calling convention for a complier in C++?

Options :

1. _cdecl

2. _stdcall

3. _pascal

4. _fastcall

Question Number : 29 Question Id : 3419798778 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

What is the meaning of the following declaration in C++?

```
int(* ptr[5]) ():
```

Options :

1. ptr is a pointer to a function.

2. ptr is an array of pointers to a function.

3. ptr is a pointer to a function whose return type is an array.

4. prt is a pointer to an array of functions.

Question Number : 30 Question Id : 3419798779 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Which operator in C++ is used to insert the data into a file?

Options :

1. >>

2. <<

3. <

4. >

Question Number : 31 Question Id : 3419798780 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

How many objects are used for input and output to a string in C++?

Options :

1. 1

2. 2

3. 3

4. 4

Question Number : 32 Question Id : 3419798781 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

What is the use of the 'finally' keyword in C++?

Options :

1. It is used to execute at the starting of the program.

2. It will be executed at the end of the program even there is an exception arised.

3. It will be executed whenever an exception is handled.

4. It will be executed whenever a function is called.

Question Number : 33 Question Id : 3419798782 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

What does the function object implement in C++?

Options :

1. operator

2. operator()

3. operand

4. system call

Question Number : 34 Question Id : 3419798783 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Consider the inorder and pre-order traversal of a binary tree as follows:

inorder traversal:	D	B	E	A	C
preorder traversal:	A	B	D	E	C

What is the postorder traversal of the binary tree?

Options :

1. D E B C A

2. D B E A C

3. A B C D E

4. A C D B E

Question Number : 35 Question Id : 3419798784 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

What is the maximum possible height of a binary search tree with n nodes?

Options :

1. $n-2$

2. $n-1$

3. $n+1$

4. $n+2$

Question Number : 36 Question Id : 3419798785 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Which of the following algorithm is used for finding the shortest path from a source vertex to a given destination vertex in a graph with positively weighted edges?

Options :

1. Krish Kal's algorithm

2. Dijkstra's algorithm

3. Warshall's algorithm

4. Floyd's algorithm

Question Number : 37 Question Id : 3419798786 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

A spanning tree for a simple graph of order 24 has _____ edges.

Options :

1. 12

2. 6

3. 23

4. 24

Question Number : 38 Question Id : 3419798787 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

The average time complexity of binary search algorithm is

Options :

1. O(n)

2. $O(n^2)$

3. O(n log n)

4. O(log n)

Question Number : 39 Question Id : 3419798788 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

In the linked list representation of a binary tree of n nodes, the number of null pointers is

Options :

1. $n - 1$

2. $n + 1$

3. n

4. $n + 2$

Question Number : 40 Question Id : 3419798789 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Which of the following statements is correct?

Options :

1. Every stack can be modelled as a Priority Queue

2. Every Queue is a stack

3. The time complexity of removing an element from a stack having n elements is O(n)

4. Every singly linked list can be modelled using a stack and a Queue

Question Number : 41 Question Id : 3419798790 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

The result after evaluating the post fix expression: 5 4 6 + * 4 9 3 / + * is

Options :

1. 600

2. 350

3. 650

4. 588

Question Number : 42 Question Id : 3419798791 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

The following operations are performed on a stack of size 5 elements.

push(5); pop(); push(2); push(2); push(3); pop();
push(4); pop(); pop(); push(6);

How many elements are there in the stack now?

Options :

1. 1

2. 2

3. 3

4. 4

Question Number : 43 Question Id : 3419798792 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

If more than one element is competing for the same location in a hash table then it is called

Options :

1. replication

2. iteration

3. diffusion

4. collision

Question Number : 44 Question Id : 3419798793 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

What is the worst case time complexity of bubble sort?

Options :

1. O(n log n)

2. $O(\log n)$

3. $O(n)$

4. $O(n^2)$

Question Number : 45 Question Id : 3419798794 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

In a max-heap, elements with the greatest key is always in the _____ node.

Options :

1. leaf node

2. first node of the left sub tree

3. first node of the right sub tree

4. root node

Question Number : 46 Question Id : 3419798795 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

If a function f(n) is recursively defined as follows:

$$f(0) = f(1) = 1$$
$$f(n) = f(n-1) + f(n-2)$$

Then what is the value of f(9)?

Options :

1. 55

2. 45

3. 34

4. 37

Question Number : 47 Question Id : 3419798796 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

How many binary trees are possible with three nodes?

Options :

1. 4

2. 5

3. 6

4. 7

Question Number : 48 Question Id : 3419798797 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

A linear list in which elements can be added or removed at either end is called

Options :

1. circular queue

2. priority queue

3. dequeue

4. indented queue

Question Number : 49 Question Id : 3419798798 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Which data structure is used for removing recursion?

Options :

1. Tree

2. Linked list

3. Queue

4. Stack

Question Number : 50 Question Id : 3419798799 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Which of the following statement is true?

Options :

1. All trees are graphs

2. All graphs are trees

3. Only some trees are graphs

4. No graph can be considered as a tree

Question Number : 51 Question Id : 3419798800 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Which of the following is NOT a level of data abstraction?

Options :

1. Physical level

2. Logical level

3. View level

4. Critical level

Question Number : 52 Question Id : 3419798801 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

If a relation is in BCNF then it is automatically in

Options :

1. 3NF

2. 4NF

3. 5NF

4. 6NF

Question Number : 53 Question Id : 3419798802 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

In a DBMS, a candidate key which is not a primary is called

Options :

1. super key

2. foreign key

3. alternate key

4. compound key

Question Number : 54 Question Id : 3419798803 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

In a relational database management system the data is represented as

Options :

1. a set of tables

2. a set of null values

3. a set of queries

4. a set of domains

Question Number : 55 Question Id : 3419798804 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

If every non-prime attributes of a relation R is fully functionally dependent on the primary key then the relation is said to be in

Options :

1. first normal form

2. second normal form

3. fourth normal form

4. third normal form

Question Number : 56 Question Id : 3419798805 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

In Computer terminology an error in a programme is known as

Options :

1. Bug

2. Bus

3. Virus

4. Blowback

Question Number : 57 Question Id : 3419798806 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

A database system consisting of a collection of sites where each site provides local database management support is called

Options :

1. Remote database system

2. Parallel database system

3. Distributed database system

4. Centralized database system

Question Number : 58 Question Id : 3419798807 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

A database schema is specified by a set of definitions special language called

Options :

1. Data manipulation language

2. Data definition language

3. Data insertion language

4. Data driven language

Question Number : 59 Question Id : 3419798808 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

In the relation EMPLOYEES (EMP_ID, EMP_NAME, DEPT_GRADE, SALARY) what could be chosen a primary key?

Options :

1. EMP_ID

2. EMP_NAME

3. SALARY

4. DEPT_GRADE

Question Number : 60 Question Id : 3419798809 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Referential integrity is with reference to

Options :

1. Primary key

2. Super key

3. Foreign key

4. Alternate key

Question Number : 61 Question Id : 3419798810 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

The number of CODD rules which characterize an RDBMS is

Options :

1. 32

2. 12

3. 20

4. 24

Question Number : 62 Question Id : 3419798811 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

The question is based on the following relation schema.

sailors (sailor_id, sailor_name, age);
boats (boat_id, boat_name, colour);
reserves (sailor_id, boat_name, day);

The SQL query

SELECT COUNT (*) FROM sailors;

gives

Options :

1. name of all sailors.

2. number of sailors.

3. names and ages of sailors.

4. sailor_id, sailor_name and of all tuples of the sailors relation.

Question Number : 63 Question Id : 3419798812 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

The question is based on the following relation schema.

sailors (sailor_id, sailor_name, age);
boats (boat_id, boat_name, colour);
reserves (sailor_id, boat_name, day);

Which of the following SQL-queries represent the statement "All the ages of sailors whose name begins and ends with B and has at least three characters"?

Options :

1. SELECT S.age FROM sailors S WHERE S.sailor_name LIKE 'B_%B';

2. SELECT S.age FROM sailors WHERE S.sailor name LIKE 'B %B';

3. SELECT age FROM sailors WHERE sailor_name AS (CHAR) >= 3;

4. SELECT age FROM sailors WHERE sailor_name AS MIN(CHAR) >= 3;

Question Number : 64 Question Id : 3419798813 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical
Correct Marks : 1 Wrong Marks : 0

The question is based on the following relation schema.

sailors (sailor_id, sailor_name, age);
boats (boat_id, boat_name, colour);
reserves (sailor_id, boat_name, day);

The average age of sailors can be represented in SQL as

Options :

1. SELECT AVG (S.age) FROM sailors S;

2. SELECT AVERAGE (S.age) FROM sailors S;

3. SELECT AVERAGE(*) FROM sailors ;

4. SELECT ALL AVG(age) FROM sailors;

Question Number : 65 Question Id : 3419798814 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

The question is based on the following relation schema.

sailors (sailor_id, sailor_name, age);
boats (boat_id, boat_name, colour);
reserves (sailor_id, boat_name, day);

What does the following SQL query imply?

SELECT S.sailor_name FROM sailors S WHERE S.sailor_id IN
(SELECT R.sailor_id FROM reserves R WHERE R.boat_id = 103)j;

Options :

1. The names of the sailors who are reserved for the boat number 103.

2. The names of the sailors who have reserved boat number 103.

3. The names of the sailors whose names are same as that of boat names.

4. The names of the sailors who are sailing presently in boat number 103.

Question Number : 66 Question Id : 3419798815 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

What does the following query represent?

SELECT S.sailor_name FROM sailors S, boats B, reserves R
WHERE S.sailor_id = R. sailors-id AND R.boats_id = B.boat_id AND
R.boat_id = B.boats_id AND (B.colouor = 'red' OR B.colour = 'green';

Options :

1. The names of the sailors who are travelling by a red or a green boat.

2. The names of the sailors who have reserved both a red and a green boat.

3. The names of the sailors who have a red boat not a green boat.

4. The names of the sailors who have reserved a red or a green boat.

Question Number : 67 Question Id : 3419798816 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Any public key crypto-system will have

Options :

1. one private key and one public key
2. one private key and two public keys
3. two private keys and two public keys
4. two private keys and one public key

Question Number : 68 Question Id : 3419798817 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

The concept of serializability in a data base management system is related to

Options :

1. secret key cryptography
2. normalization of relations
3. concurrency control
4. E-R models

Question Number : 69 Question Id : 3419798818 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

In a particular bank, a loan can belong to only one customer and a customer can have several loans then the relationship from customer to loan is

Options :

1. many to many
2. many to one
3. one to one
4. one to many

Question Number : 70 Question Id : 3419798819 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Linear probing is a method of

Options :

1. resolving collisions in hashing

2. mapping cardinalities

3. normalizing tables

4. database recovery

Question Number : 71 Question Id : 3419798820 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Which of the following is a characteristic of an object oriented programming language?

Options :

1. Forward reasoning

2. Concurrency control

3. Polymorphism

4. Byte code

Question Number : 72 Question Id : 3419798821 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Which of the following statements is FALSE?

Options :

1. C is not an object oriented language.

2. Java language does not support pointers explicitly.

3. Exception handling is not possible in Java.

4. Java programming language is case sensitive.

Question Number : 73 Question Id : 3419798822 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

When a Java programing is complied, the file produced by the complier ends with the _____ file extension.

Options :

1. .Java

2. .class

3. .exe

4. .jdbc

Question Number : 74 Question Id : 3419798823 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

The file produced by the Java complier contains _____ that are executed by the Java virtual machine.

Options :

1. procedures

2. functions

3. routing

4. byte codes

Question Number : 75 Question Id : 3419798824 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Which of the following type format is used to output values of type double?

Options :

1. %f

2. %d

3. %c

4. %ff

Question Number : 76 Question Id : 3419798825 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Which of the following statements of Java is syntactically wrong?

Options :

1. x+ = 1;

2. while (c <= 5) {product *=c; ++c;}

3. if (count > 10) system.out.println("count is less than 10");

4. x++ = y;

Question Number : 77 Question Id : 3419798826 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

What is the output of the following Java segment?

```
sum = 0
for(cont = 1; cont <= 0; cont+ = 2)
sum+ = cont;
```

Options :

1. 25

2. 55

3. 45

4. 16

Question Number : 78 Question Id : 3419798827 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Which of the following is correct in Java?

Options :

1.
```
int sum(int x, int y)
    {
        int result;
        result = x + y;
    }
```

2.
```
int sum(int x, int y)
    {
        result = x + y
        return result;
    }
```

3.
```
int sum(int x, int y)
    {
        return x + y;
    }
```

4.
```
int sum(int x, int y)
    {
        return = x + y;
    }
```

Question Number : 79 Question Id : 3419798828 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

What is the output of the following Java segment?

```
import static java.lang.math.*;
{
    public class StaticImportTest
{
    public static void main(String[] args)
    System.out.printf("ceil(–9.8) = %.1f\n, ceil(–9.8);
}
}
```

Options :

1. –9.0

2. –10.0

3. 9.0

4. 10.0

Question Number : 80 Question Id : 3419798829 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

_____ is a form of software reusability in which new classes acquire the members of existing classes and embellish those classes with new capabilities.

Options :

1. Inheritance

2. Polymorphism

3. Overloading

4. Type casting

Question Number : 81 Question Id : 3419798830 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Which of the following is true?

Options :

1. All methods in an abstract class must be declared as abstract methods.

2. Invoking a subclass-only method through a subclass variable is not allowed.

3. If a superclass declares an abstract method, a subclass must implement that method.

4. An object of a class that implements an interface may be thought of as an object of that interface type.

Question Number : 82 Question Id : 3419798831 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Try and catch in Java are related to

Options :

1. control statement

2. program preprocessing

3. 'finally' block

4. exception handling

Question Number : 83 Question Id : 3419798832 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

in JAVA program, a resource leak occurs when _____.

Options :

1. an executing program does not properly release a resource when it is no longer needed

2. unwanted resources overload the system

3. two or more complimentary processes work together

4. no resource is allocated

Question Number : 84 Question Id : 3419798833 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

If s_1 and s_2 are two strings in JAVA, then the result of the statement s_1 += s_2; is

Options :

1. the number of characters of s_2 are added to the number of characters od s_2

2. the string s_2 is appended to s_1

3. a Syntax error

4. identifying when both s_1 and s_2 are of same length or not

Question Number : 85 Question Id : 3419798834 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

What does the following JAVA code?

```
public int mystery (int a, int b)
{
        if(b == 1)
                return a;
        else
                return a + mystery (a,b-1);
}
```

Options :

1. a + b

2. a / b

3. a – b

4. a * b

Question Number : 86 Question Id : 3419798835 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Which of the following statements is false?

Options :

1. UDP is a connection-oriented protocol.

2. With stream sockets a process establishes a connection to another process.

3. A server waits at a port for connections from a client.

4. Datagram packet transmission over a network is reliable.

Question Number : 87 Question Id : 3419798836 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

In OSI network architecture, the dialogue control and token management are responsibilities of

Options :

1. session layer

2. network layer

3. transport layer

4. data link layer

Question Number : 88 Question Id : 3419798837 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

In OSI network architecture, the routing is performed by

Options :

1. network layer

2. data link layer

3. transport layer

4. session layer

Question Number : 89 Question Id : 3419798838 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

What is the number of separate protocol layers at the serial interface gateway specified by the X.25 standard?

Options :

1. 4

2. 2

3. 6

3

4.

Question Number : 90 Question Id : 3419798839 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

The physical layer of a network

Options :

1. defines the electrical characteristics of signals passed between the computer and communication devices.

2. controls errors detection and correction.

3. constructs packets of data and sends them across the network

4. All

Question Number : 91 Question Id : 3419798840 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

A 2400-character text file has to be transmitted by using a 1200 baud modem. Can you tell how long will it take?

Options :

1. 2 seconds

2. 20 seconds

3. 10 seconds

4. 12 seconds

Question Number : 92 Question Id : 3419798841 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

How many pairs of stations can simultaneously communicate on Ethernet LAN?

Options :

1. 1

2. 2

3. 31

4. Multiple

Question Number : 93 Question Id : 3419798842 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

A 6-MHz channel is used by digital signalling system utilizing 4-level signals. What is the maximum possible transmission rate?

Options :

1. 1.5 Mbaud/sec

2. 6 Mbaud/sec

3. 12 Mbaud/sec

4. 24 Mbaud/sec

Question Number : 94 Question Id : 3419798843 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Four bits are used for packed sequence numbering in a sliding window protocol used in a computer network. What is the maximum window size?

Options :

1. 4

2. 8

3. 15

4. 16

Question Number : 95 Question Id : 3419798844 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

The 32-bit internet address 1000000 00001010 00000010 00011110 will be written in dotted decimal notation as

Options :

1. 148.20.30

2. 164.100.9.61

3. 210.20.2.67

4. 128.10.2.30

Question Number : 96 Question Id : 3419798845 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Which of the following statement is incorrect?

Options :

1. If a host moves from one network to another, its IP address must change.

2. Routing uses the network portion of the IP address, the path taken by packets travelling to a host with multiple IP address depends on the address used.

3. IP address encode both a network and a host on that network, they do not specify an individual machine, but a connection to a network.

4. All

Question Number : 97 Question Id : 3419798846 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Which of the following TCP/IP protocol is used for remote terminal connection services?

Options :

1. TELNET

2. FTP

3. RARP

4. UDP

Question Number : 98 Question Id : 3419798847 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Which of the following TCP/IP protocol is used for transferring electronic mail messages from one machine to another?

Options :

1. FTP

2. SNMP

3. SMTP

4. RPC

Question Number : 99 Question Id : 3419798848 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Which of the following device copies electrical signals from one Ethernet to another?

Options :

1. Bridge

2. Repeater

3. Hub

4. Passive hub

Question Number : 100 Question Id : 3419798849 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Fiber Distributed Data Interface (FDDI) is a

Options :

1. ring network
2. star network
3. half duplex
4. multiplex