

## Coding Ninja Everyday MCQ

Current week: 27-02 Jun ⌚ 7 days left  ⓘ See how this works

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To level up your league, stay on top of the leaderboard each week

The chart shows a horizontal sequence of icons representing levels: Iron (black shield), Bronze (brown shield), Silver (silver shield), Gold (gold shield), Master (pink shield), Grand Master (purple shield), and Ninja Dominator (blue shield). The 'Ninja Dominator' level is highlighted with a yellow border and labeled 'Current' below it.

25.3.24

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MCQ Problem of the day

Your EXP ⚡ 1696 S

**Problem**

Basics of deadlock

Easy • 10/10

**Problem statement**

If the wait for graph contains a cycle \_\_\_\_\_ (Amazon)

[Send feedback](#)

**Options:** Pick one correct answer from below

then a deadlock does not exist

then a deadlock exists

then the system is in a safe state

either deadlock exists or system is in a safe state

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MCQ Problem of the day

Your EXP ⚡ 1696 S

**Problem**

True statement

Easy • 10/10

**Problem statement**

Direction :  
Study the following information and answer the questions given below.  
Eight people E, F, G, H, I, K, L and M are sitting around a circular table facing the centre. Each of them is of a different profession: Chartered Accountant, Columnist, Doctor, Engineer, Financial Analyst, Lawyer, Professor and Scientist but not necessarily in the same order. F is sitting second to the left of K. The Scientist is an immediate neighbour of K. There are only three people between the Scientist and E. Only one person sits between the Engineer and E. The Columnist is to the immediate right of the Engineer. M is second to the right of K. H is the Scientist. G and J are immediate neighbours of each other. Neither G nor J is an Engineer. The Financial Analyst is to the immediate left of F. The Lawyer is second to the right of the Columnist. The Professor is an immediate neighbour of the Engineer. G is second to the right of the Chartered Accountant.

Which of the following statements is true according to the given arrangement?  
(AWS 2016)

**Options:** Pick one correct answer from below

The Lawyer is second to the left of the Doctor

E is an immediate neighbour of the Financial Analyst

H sits exactly between F and the Financial Analyst

Only four people sit between the Columnist and F

**Problem**

**Purpose of Constructor**

Easy • 10/10

**Problem statement**

Constructor of a class is used \_\_\_\_\_

**Solution description**

A constructor is used in classes to initialize data members of the class in order to avoid errors/segmentation faults.

**Problem**

**How many cadets?**

Easy • 10/10

**Problem statement**

In a north-facing row of NCC Cadets, Trisha is 9th from the left end and Tina is 12th from the right end. There are 5 cadets between Trisha and Tanya who are equidistant to Tina. Find how many cadets are there in the row? ( Goldman Sachs campus hiring drive)

**Solution description**

[alt text](https://ninjafiles.s3.amazonaws.com/asset\_000000000000383\_1617789098\_img-3.png )  
Adding all the persons in the above image, we get: 8 + 1(Trisha) + 5 + 1(Tanya) + 5 + 1(Tina) + 11 = 32 Thus there are 32 cadets in the row.

8 ← Trisha ← 5 → Tanya ← 5 → Tina → 11  
 (9<sup>th</sup>)              (6<sup>th</sup>)              (12<sup>th</sup>)  
 ← Left end              Right end →

### Ninja problem (14.4.24)

[https://www.naukri.com/code360/problem-details/boxes-and-chocolates\\_1264941](https://www.naukri.com/code360/problem-details/boxes-and-chocolates_1264941)

```
from os import *
from sys import *
from collections import *
from math import *
MOD = 1000000000 + 7
def div3Subsets(arr):
dp = [1,0,0]
for x in arr:
```

```

ndp = dp.copy()
for i in range(3):
    ndp[(i + x) % 3] += dp[i]
for i in range(3):
    ndp[i] = ndp[i] % MOD
dp = ndp
# exclude empty subset
return (dp[0] - 1) % MOD
def div3Subarrays(arr):
    psum = 0
    fr = [1, 0, 0]
    ans = 0
    for x in arr:
        psum = (psum + x) % 3
        ans = (ans + fr[psum]) % MOD
        fr[psum] += 1
    return ans
def maxNumberOfWays(arr, n, q, queries):
    ans = []
    ans.append([div3Subsets(arr)])
    ans.append([div3Subarrays(arr)])
    temp = []
    for qq in queries:
        if qq[0] == 0:
            # update
            i, v = qq[1], qq[2]
            arr[i-1] = v
        else:
            # query
            L, R = qq[1], qq[2]
            temp.append(div3Subsets(arr[L-1:R]))
    ans.append(temp)
    return ans

```

#### 18.4.24

```

class D(B,C):

def test2(self):
    print(" method named test2 of D called ")

object1=D()
object1.test1()

```

**Problem**

**Inheriting Classes I** Easy • 10/10

**Problem statement** Send feedback

What will be the output of the following code?

```

class A:

def test1(self):
    print(" method named test1 of A called ")

class B(A):

def test1(self):
    print(" method named test1 of B called ")

class C(A):

def test1(self):
    print(" method named test1 of C called ")

```

**Options:** Pick one correct answer from below

method named test1 of B called method named test1 of C called

method named test1 of C called method named test1 of B called

method named test1 of B called

Error, both the classes from which D derives has the same method test1()

**Solution description**  
Execute in Python shell to verify. If class D(B,C) is switched is class D(C,B); then, method test1 of class C is called

**Problem**

**Dispatcher** Easy • 10/10

**Problem statement** Send feedback

Which module gives control of the CPU to the process selected by the short-term scheduler? (Amcat Exam)

**Options:** Pick one correct answer from below

Dispatcher

Scheduler

Interrupt

None of the above

## 19.4.24

**Problem**

**Not a multiple of 5** Easy • 10/10

**Problem statement** Send feedback

N1, N2, N3, N4, and N5 are the natural numbers. What is the probability that the product of these numbers ends in an odd number that is not a multiple of 5? (Amdocs)

**Options:** Pick one correct answer from below

$(0.5)^4$

$(0.25)^5$

$(0.4)^5$

$(0.5)^5$

**Solution description**  
Product of 5 numbers to be odd, 1st of all the last digit should not be even and the last digit should not be 5.  
Probability of any unit place = 1/10  
All the numbers should end with 1,3,7 and 9 i.e. 4 numbers.  
Probability of number P(N1) = 4/10.  
Probability of number P(N2) = 4/10.  
Probability of number P(N3) = 4/10.  
Probability of number P(N4) = 4/10.  
 $P(N1,N2,N3,N4 \text{ and } N5) = P(N1)P(N2)P(N3)P(N4)P(N5) = 4/10 \times 4/10 \times 4/10 \times 4/10 \times 4/10 = (0.4)^5$

**Problem**

**Counters**

Easy • 10/10

**Problem statement**

What will be the output of the following code?

```
import collections

b=collection.Counter([2,2,3,4,4,4])
b.most_common(1)
a=collection.Counter([2,2,3,3,3,4])
b=collection.Counter([2,2,3,4,4])

a|b
```

[Send feedback](#)

**Options:** Pick one correct answer from below

Counter({4:1})

Counter({2: 2, 3: 1, 4: 1})

Counter({3: 2})

Counter({2: 2, 3: 3, 4: 2})

## 20.4.24

**Find the output III**

Easy • 10/10

**Problem statement**

What is the output of the following code?

```
#include <iostream>
using namespace std;

int main() {
    int var1 = 5;
    int var2 = 6;
    if ((var2 = 1) == var1)
        cout << var2;
    else
        cout << (var2 + 1);
}
```

[Send feedback](#)

**Options:** Pick one correct answer from below

7

1

2

6

**Solution description**

Inside if condition, we are doing if((var2 = 1) == var1). So first 1 will be assigned to var2 and then it'll be compared with var1. Before comparison, var2 = 1 and var1 = 5, which are not equal. So, we'll move to the else part and there the value of (var2 + 1) i.e. 2 will be printed.

## 21.4.24

**Private IP**

Easy • 10/10

**Problem statement**

Which of the following is private IP?

[Send feedback](#)

**Options:** Pick one correct answer from below

10.25.170.52

83.0.12.240

49.150.25.7

162.27.96.78

**Solution description**

The IP 10.25.170.52 lies in the range of Class A private IP i.e. 10.0.0.0 — 10.255.255.255.

**Problem**

**Reaching airport**

Easy • 10/10

**Problem statement**

Statement: Because of the large number of potholes in road X, reaching airport in time has become difficult.

Assumption 1: Reaching airport in time may not be always necessary.

Assumption 2: There is no other convenient road to the airport. (Asked in Sopient )

**Options:** Pick one correct answer from below

Only assumption I is implicit

Only assumption II is implicit

Either I or II is implicit

Neither I nor II is implicit

Both I and II are implicit

---

**Float Comparison**

Easy • 10/10

**Problem statement**

What is the output of print  $0.1 + 0.2 == 0.3$ ?

**Options:** Pick one correct answer from below

True

False

Machine Independent

Error

**22.4.24**

**Problem**

**Time and Work 3**

Easy • 10/10

**Problem statement**

A alone can do a piece of work in 6 days and B alone in 8 days. A and B undertook to do it for Rs. 3200. With the help of C, they completed the work in 3 days. How much is to be paid to C? (American Express hiring 2019)

[Send feedback](#)

**Options:** Pick one correct answer from below

500

450

400

350

**Solution description**

C's 1 day's work =  $1/3 - (1/6 + 1/8) = 1/3 - 7/24 = 1/24$   
 A's wages: B's wages: C's wages =  $1/6 : 1/8 : 1/24 = 4 : 3 : 1$   
 C's share (for 3 days) =  $\text{Rs. } (3 \times 3200)/24 = \text{Rs. } 400$ .

**Problem**

**Application of deep and shallow copy**

Easy • 10/10

**Problem statement**

Suppose you have to submit the homework but are short of time. So, you decide to copy the same from your friend. Now, you and your friend have the same work but possess different copies. Now, you choose to modify yours's a bit to prevent the risk of the teacher figuring it out. But the changes you made should not affect your friend's work.  
 So, to get this, what must you use?

[Send feedback](#)

**Options:** Pick one correct answer from below

deep

memberwise

shallow

None of the above

**Solution description**

Since deep memory allocates different memory for the copied task, you should use the deep copy.

**Problem**

**Find the output IX**

Moderate • 20/20

**Problem statement**

What will be the output of the following code?

```
#include <iostream>
using namespace std;

int main() {
    int i;
    for (i = 0; i < 10; i++) {
        cout << i;
    }
    return 0;
}
```

[Send feedback](#)

**Options:** Pick one correct answer from below

0123456789

10

012345678910

compile time error

**Solution description**

for loop with a semicolon is called as body-less for loop. It is used only for incrementing the variable values. So in this program, the value is incremented and printed as 10.

**23.4.24**

### Bound Buffer Problem

Easy • 10/10

#### Problem statement

In the bounded buffer problem \_\_\_\_\_ ( Tcs)

[Send feedback](#)

**Options:** Pick one correct answer from below

- there is only one buffer
- there are n buffers ( n being greater than one but finite)
- there are infinite buffers
- the buffer size is bounded

### Problem

### Method Overriding III

Easy • 10/10

#### Problem statement

What is the output of the following code?

[Send feedback](#)

```
class Base {  
    public void show() {  
        System.out.println("Base");  
    }  
  
class Derived extends Base {  
  
    private void show() {  
        System.out.println("Derived");  
    }  
}
```

**Options:** Pick one correct answer from below

- Base
- Derived
- Compile time error
- Runtime error

#### Solution description

It is a compile time error to give more restrictive access to a derived class function which overrides a base class function.

```
public class Main {  
  
    public static void main(String[] args) {  
        Base b = new Derived();  
        b.show();  
    }  
  
}
```

### Bitwise Operators II

Easy • 10/10

#### Problem statement

What will be the output of the following statement?

[Send feedback](#)

```
a = 2  
b = 4  
c = a & b  
print(c)
```

**Options:** Pick one correct answer from below

- 2
- 4
- 6
- 0

#### Solution description

Binary Representation of 2 is 10 and 4 is 100 after performing and operation between both binary will be equal to 0.

## 24.4.24

Problem

Default boolean value

Easy • 10/10

Problem statement

What is the default value of boolean?

[Send feedback](#)

Options: Pick one correct answer from below

true

false

Solution description

The default value of boolean in Java is false.

Problem

Use of ternary operator

Easy • 10/10

Problem statement

We can use ternary operator in place of?

[Send feedback](#)

Options: Pick one correct answer from below

If else

Switch statement

Both

None of the above

Solution description

We can use ternary operator in place of if else and switch statement.

Easy • 10/10

Problem statement

The descriptive property possessed by each entity set is \_\_\_\_\_. (AMCAT)

[Send feedback](#)

Entity

Attribute

Relation

Model

Solution description

The descriptive property possessed by each entity set is Attribute.

## 25.4.24

### Problem

#### ✓ Keyword to Throw Exception

Easy • 10/10

#### Problem statement

[Send feedback](#)

Which of these keywords is used to explicitly throw an exception?



Options: Pick one correct answer from below

throws

throw

try

catch

#### Solution description

In java, throw keyword is used to explicitly throw an exception.

#### Problem statement

[Send feedback](#)

With what values do trigonometric functions work with angles in C++?

Degrees

Radians

Both Degrees & Radians

Celsius

#### Solution description

The trigonometric functions work with angles in radians rather than degrees.

#### ✓ Functional query

Easy • 10/10

#### Problem statement

[Send feedback](#)

What is the meaning of LIKE "%0%0%"?(SIEMENS)



Options: Pick one correct answer from below

Feature begins with two 0's

Feature ends with two 0's

Feature has more than two 0's

Feature has two 0's in it, at any position

#### Solution description

The LIKE operator is used in a WHERE clause to search for a specified pattern in a column.

**26.4.24**

**Problem statement**

What is the output of the following code?

```
class Test {  
    private void display() {  
        System.out.println("Coding Ninjas");  
    }  
  
}  
  
public class Solution {  
  
    public static void main(String args[]) {  
  
        Test obj = new Test();  
        obj.display();  
    }  
}
```

[Send feedback](#)

**Options:** Pick one correct answer from below

 Coding Ninjas **Compile-time error** Runtime error None of the above**Solution description**

We can not access private methods outside the class.

**Problem statement**

What will be the output of the following code?

```
#include <iostream>  
  
using namespace std;  
int main() {  
    int a = 10;  
    if (a < 15) {  
        time: cout << a;  
        goto time;  
    }  
    break;  
    return 0;  
}
```

[Send feedback](#) 1010 10 infinitely print 10 **compile-time error****Solution description**

Because the break statement needs to be presented inside a loop or a switch statement.

**✓ Bound Buffer**

Easy • 10/10

**Problem statement**[Send feedback](#)

The bounded buffer problem is also known as \_\_\_\_\_ (Infosys)

**Options:** Pick one correct answer from below

 Readers – Writers problem Dining – Philosophers problem **Producer – Consumer problem** None of the mentioned**Solution description**

The bounded buffer problem is also known as Producer-Consumer problem.

**27.4.24**

**Problem**

What is the output of the following code?

```
final class Parent {
    public void show() {
        System.out.println("Inside parent class");
    }
}

class Child extends Parent {
    public void show() {
        System.out.println("Inside child class");
    }
}

public class Main {
    public static void main(String args[]) {
        Parent p = new Child();
        p.show();
    }
}
```

**Options:** Pick one correct answer from below

- Inside parent class
- Inside child class
- Error ✓
- None of the above

**Solution description**  
We cannot inherit the final class.

**Problem**

✓ BCNF

Easy • 10/10

**Problem statement**

A table is in BCNF if it is in 3NF and if every determinant is a \_\_\_\_\_ key.  
(ADDOBE)

**Send feedback**

**Options:** Pick one correct answer from below

- Dependent
- Normal
- Candidate ✓
- Both Normal and Candidate

✓ Definition of Abstraction

Easy • 10/10

**Problem statement**

Abstraction is best defined by \_\_\_\_\_

**Send feedback**

**Options:** Pick one correct answer from below

- Hiding the implementation
- Showing the important data
- Hiding the important data
- Hiding the implementation and showing only the features ✓

**Solution description**  
It includes hiding the implementation part and showing only the user's required data and features. It is done to hide the implementation complexity and details from the user. And to provide a good interface in programming.

**Recursive Relation**

Easy • 10/10

**Problem statement**

A recursive relationship is a relationship between an entity and \_\_\_\_\_.

[Send feedback](#)

**Options:** Pick one correct answer from below

itself

a subtype entity

an archetype entity

an instance entity

## 28.4.24

**Problem**

**Mutability**

Easy • 10/10

**Problem statement**

What is the output of the following code?

```
#include <iostream>
#include <string>
using namespace std;

int main() {
    string str("coding Ninjas.");
    str.front() = 'C';
    str.back() = '!';
    cout << str << endl;
    return 0;
}
```

[Send feedback](#)

**Options:** Pick one correct answer from below

Coding Ninjas.

Coding Ninjas! ✓

Ccoding Ninjas.!

None

**Solution description**

front() modifies the string's first character with the character provided, and back() function modifies the string's last character with the character provided.

**Delete**

Easy • 10/10

**Problem statement**

\_\_\_\_\_ removes all rows from a table without logging the individual row deletions.(GATE)

[Send feedback](#)

**Options:** Pick one correct answer from below

DELETE

REMOVE

DROP

TRUNCATE ✓

**Solution description**

TRUNCATE statement is a Data Definition Language (DDL) operation that marks the extents of a table for deallocation.

**wait and die**

Easy • 10/10

**Problem statement**

Send feedback

State true or false: Wait die scheme is a non-preemptive technique (gate)

**Options:** Pick one correct answer from below

True



False

**Solution description**

The wait-die scheme is a non-preemptive technique. When a transaction  $T_i$  requests a data item currently held by  $T_j$ ,  $T_i$  is allowed to wait only if it has a timestamp smaller than that of  $T_j$  (that is,  $T_i$  is older than  $T_j$ ). Otherwise,  $T_i$  is rolled back (dies).

**Percentage change**

Easy • 10/10

**Problem statement**

Send feedback

**Answer:**

110.6

$$\begin{aligned}
 \text{Product} &= abcd \\
 \text{After change} &= (a + 0.2a)(b + 0.3b)(c + 0.5c)(d - 0.1d) \\
 &= (1.2a)(1.3b)(1.5c)(0.9d) \\
 &= 2.106abcd \\
 \% \text{ change} &= \frac{(2.106abcd - abcd)}{abcd} \times 100\% \\
 &= \frac{1.106abcd}{abcd} \times 100\% \\
 &= 110.6\%
 \end{aligned}$$

### Some other day problem-

Handwritten notes on a lined notebook page:

$$\underline{x_1 + \dots + x_{20}} = 60 \quad \underline{y_1 + \dots + y_{30}} = 70$$

$$20 \qquad \qquad \qquad 30$$

$$\underline{x_1 + \dots + x_{20} + y_1 + \dots + y_{30}} = \underline{60(20) + 70(30)} \\ 50 \qquad \qquad \qquad 50 \quad 60 \\ = \underline{1200 + 2100} = \underline{3300} \\ 50 \qquad \qquad \qquad 50$$

$$1 - \boxed{66}$$

$$[10, 20, 30, 40, 50, \{60, 70, 80, 90, 100\}]$$

29.4.24

**Encapsulation Application**  
Easy • 10/10

**Problem statement**  
The concept of Encapsulation is best shown by :-

**Options:** Pick one correct answer from below

void main(){ int a; void fun( int a=10; cout<<a); fun(); }

class student{ int a; public: int b};

class student{int a; public: void disp(){ cout<<a} };

struct topper{ char name[10]; public : int marks; }

**Solution description**  
The class uses both the data members and member functions being declared inside a single unit. Only data members can be there in structures also. And the encapsulation can only be illustrated if some data/operations are associated within the class.

**TCL Command**  
Easy • 10/10

**Problem statement**  
Which of the following are TCL commands? (PERSISTENT)

**Options:** Pick one correct answer from below

UPDATE and TRUNCATE

SELECT and INSERT

GRANT and REVOKE

ROLLBACK and SAVEPOINT

**Solution description**  
Transaction control commands manage changes made by DML commands. These SQL commands are used for managing changes affecting the data.

30.4.24

**Problem statement**

What is the output of the following code?

```
abstract class InterfaceExample  
{ public int a; InterfaceExample() { a = 10; }  
abstract public void set();  
  
final abstract public void get();  
}  
public class Main extends InterfaceExample {  
public void set(int a)  
{  
    this.a = a;  
}
```

[Send feedback](#) a = 10 a = 20 Compilation error None of the above**Solution description**

Final method cannot be overridden, Thus an abstract function can not be final.

```
final public void get()  
{  
    System.out.println("a = " + this.a);  
}  
  
public static void main(String[] args)  
{  
    Main obj = new Main();  
    obj.set(20);  
    obj.get();  
}  
}
```

**odd one out number**

Easy • 10/10

**Problem statement**[Send feedback](#)

In the following question, four words have been given of which three are alike in some way and one is different. Choose the odd one out  
396, 462, 572, 427, 671, 264

**Options:** Pick one correct answer from below 396 427 671 264**Solution description**

In each number except 427, the middle digit is the sum of other two.

### Unemployment

Easy • 10/10

#### Problem statement

[Send feedback](#)

Statements:

- I. There is an unprecedented increase in the number of young unemployed in comparison to the previous year.
- II. A large number of candidates submitted applications against an advertisement for the post of manager issued by a bank

Options: Pick one correct answer from below

Statement I is the cause and statement II is its effect



Statement II is the cause and statement I is its effect

Both statements I and II are independent causes

Both statements I and II are effects of independent causes

Both the statements I and II are effects of some common cause

#### Solution description

An increase in the number of unemployed youth is bound to draw in huge crowds for a single vacancy.

## 1.5.24

### MULtilevel Queue

Easy • 10/10

#### Problem statement

[Send feedback](#)

Example of Multilevel Queue Scheduling.....

Options: One or more answers may be correct

Five Queens Problem

Puzzle Problem

Both

None of the above

### Private Attribute

Easy • 10/10

#### Problem statement

[Send feedback](#)

How to make any method or attribute private?

Options: Pick one correct answer from below

By using a single underscore

By using double underscore



By using any special character

None of the Above

#### Solution description

To make any method or attribute we have to use double underscore before the method or attribute name.

**Form 4 digit number**

Easy • 10/10

**Problem statement**

Send feedback

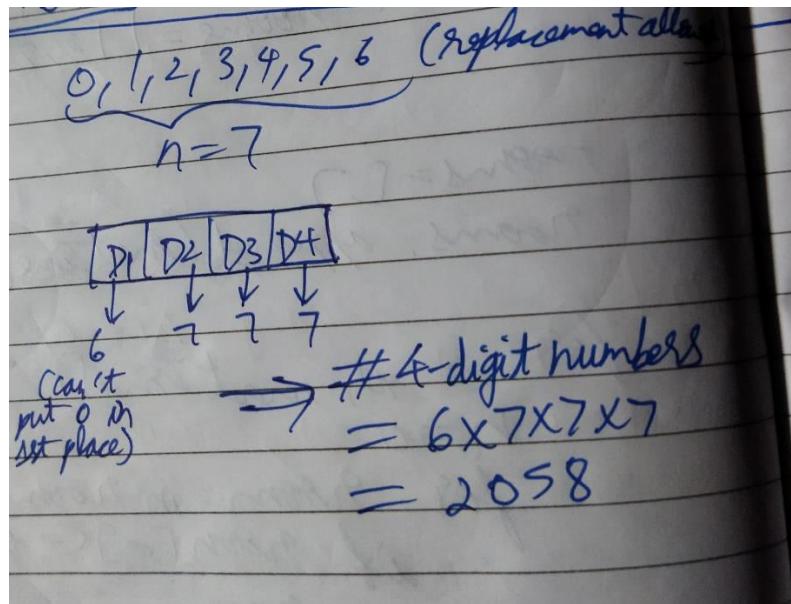
How many 4 digit numbers can be formed by using digits 0,1,2,3,4,5 and 6 with the replacement of digit allowed? (Salesforce 2019)

**Answer:**

2058

**Solution description**

1st place cannot be filled with zero because it makes 4 digit numbers into 3 digit numbers. So, To form a 4 digit number with replacement; 1st place can be filled with any of the 6 digits. 2nd place can be filled with any of the 7 digits. 3rd place can be filled with any of the 7 digits. 4th place can be filled with any of the 7 digits. Therefore the total number of ways =  $6 \times 7 \times 7 \times 7 = 2058$



## 2.5.24

Easy • 10/10

**Problem statement**

SQL Views are also known as (ELITMUS)

**Options:** Pick one correct answer from below

Simple tables

Virtual tables

Complex tables

Actual Tables

**Solution description**

A view is also known as a virtual table because it contains rows and columns similar to a real table. It shows the table interface but cannot be stored in a database.

**Problem**

**Problem statement**

What is the output of the following code?

```
public class Solution {
    public static void main(String args[]) {
        int x = 6;
        int y = 5;

        if(++y == x--) {
            System.out.println("Coding Ninjas");
        }
        else {
            System.out.println("Ninjas");
        }
    }
}
```

[Send feedback](#)

**Options:** Pick one correct answer from below

Ninjas

Coding Ninjas

Compile time error

Runtime error

**Solution description**

At the time of evaluating the expression `(++y == x--)`, `y` (6) is compared to `x` (6). Therefore the condition passes and prints Coding Ninjas.

## 3.5.24

**Problem statement**

Direction:  
Study the following information and answer the questions given below.

8 person E, F, G, H, I, J, K, and L are seated around a square table - two on each side. There are 3 ladies who are not seated next to each other. J is between L and F. G is between I and F. H, a lady member is second to the left of J. F, a male member is seated opposite to E, a lady member. There is a lady member between F and I.  
Who among the following is to the immediate left of F ? (CISCO)

[Send feedback](#)

G

I

J

H

## 4.5.24

**Locality of Reference II**

Easy • 10/10

**Problem statement**

What is the output of the following code?

```
public class Test {
    int x = 10;
    public static void main(String args[]) {
        Test t = new Test();
        System.out.println(t.x);
    }

    static {
        int x = 20;
        System.out.print(x + " ");
    }
}
```

[Send feedback](#)

**Options:** Pick one correct answer from below

10 20

20 10

10 10

20 20

**Solution description**

We can print the instance variable inside the static method after creating the class reference.

Easy • 10/10

**Problem statement**

Select a figure from amongst the Answer Figures which will continue the same series as established by the five Problem Figures.

Problem Figures:      Answer Figures:

(A) (B) (C) (D) (E) (1) (2) (3) (4) (5)

1

2

3

4

5

**Solution description**

Similar figure reappears in every fourth step and each time a figure reappears, it rotates through 90°ACW.

Problem

Method Overloading

Easy • 10/10

**Problem statement**

Is method overloading possible by changing the return type?

**Options:** Pick one correct answer from below

Yes

No

**Solution description**

Method overloading is not possible by changing the return type because of the ambiguity problem.

## 5.5.24

Problem

Value of loss

Easy • 10/10

**Problem statement**

A precious stone of weight 35 gm worth rupees 12250 is accidentally dropped and breaks into 2 pieces. The weight of the pieces in ratio 2:5. If the piece of the stone varies as the square root of weight. What is the amount of loss incurred due to the breakage? What is the value of loss?(Amdocs)

Rs. 5000

Rs. 6000

Rs. 7000

Rs. 8000

**Solution description**

Assume the price of stone = P, Weight = W According to question:  
 $P \propto W^2$  or  $P = kW^2$  .....(1)  
Given  $P = 12250$  and  $W = 35\text{gm}$ . Put value of P and W in eq (1)  $12250 = k(35)^2k = 12250/1225 = 10$ .  
Now from eq (1)  
 $P = 10W^2$  .....(2)  
35 breaks in 2:3. So; one piece of 10gm and another is 25gm.  $W_1 = 10\text{ gm}$  and  $W_2 = 25\text{ gm}$ .  
Value of 1st piece  $P_1 = 10(10)^2 = 1000$ .  
Value of 1st piece  $P_2 = 10(25)^2 = 6250$ .  
Total price of two pieces =  $1000+6250 = 7250$ .  
Therefore; loss incurred =  $12250 - 7250 = 5000\text{ Rs.}$

$$35\text{gm} \rightarrow \mathcal{E} 12250$$

After breaking into 2 pieces, weight is 2.5  
 $\Rightarrow$  weight of pieces =  $2x + 5x$   
 $\Rightarrow 7x = 35\text{gm} \Rightarrow x = 5$   
 $\therefore$  piece 1 is 10gm & piece 2 is 25gm

Cost of original piece = square of weight  
 $12250 = (7x)^2$   
 $12250 = 49x^2$

Cost of Broken pieces =  $(2x)^2 + (5x)^2$   
 $= 4x^2 + 25x^2$   
 $= 29x^2$

Loss =  $49x^2 - 29x^2$   
 $= 20x^2$   
 $= 20 \left( \frac{12250}{49} \right) = 20 \times 250$   
 $= \mathcal{E} 5000$

### 6.5.24

**Problem**

Accommodation

Easy • 10/10

**Problem statement**

Statement: Please note that the company will provide accommodation to only outside candidates if selected.' - A condition in an advertisement.

Assumption 1: The local candidates would be having some other arrangement for their stay.

Assumption 2: The company plans to select only local candidates.

**Options:** Pick one correct answer from below

Only assumption I is implicit

Only assumption II is implicit

Either I or II is implicit

Neither I nor II is implicit

Both I and II are implicit

**Solution description**

The statement mentions that the company intends to provide accommodation only to outside candidates. This means that local candidates would have to arrange accommodation on their own and that the company may select local as well as outside candidates. Thus, only I is implicit.

### 7.5.24

### Scheduling Time

Easy •  10/10

#### Problem statement

The interval from the time of submission of a process to the time of completion is termed as \_\_\_\_\_. (Elitmus)

[Send feedback](#)

**Options:** Pick one correct answer from below

waiting time

turnaround time

response time

throughput

## 8.5.24

#### Problem statement

[Send feedback](#)

**SELECT operation in SQL is equivalent to**

- (A) the selection operation in relational algebra
- (B) the selection operation in relational algebra, except that SELECT in SQL retains duplicates
- (C) the projection operation in relational algebra
- (D) the projection operation in relational algebra, except that SELECT in SQL retains duplicates

## 9.5.24

#### Problem

```
#include <string>

using namespace std;
class A {
    int a;
public:
    A(int i) {
        a = i;
    }
    void assign(int i) {
        a = i;
    }
    int getA() {
        return a;
    }
};
int main() {
    A obj;
    obj.assign(5);
    cout << obj.getA();
}
```

**Options:** Pick one correct answer from below

5

55

Error

Segmentation Fault

#### Solution description

As we have defined a constructor that takes an int parameter when we are trying to declare an object obj of class A without supplying any parameter, then as a constructor is overwritten, it will give an error that no matching function found. So whenever one writes a constructor, then the default constructor is overwritten; hence if you want to declare an object without a parameter, you also have to define that constructor.

easy • 10/10

**Problem statement**  
Where is a new object allocated memory?

[Send feedback](#)

Young space ✓

Old space

Young or Old space depending on space availability

JVM

**Solution description**  
A new object is always created in young space. Once young space is full, a special young collection is run where objects which have lived long enough are moved to old space and memory is freed up in young space for new objects.

---

## 10.5.24

**Water Image 1**

Easy • 10/10

**Problem statement**  
Choose the alternative which closely resembles the water image of the given combination.

[Send feedback](#)

**E8 t 4 e9C**  
**(1) C8e4 f18E (2) C8e4 f18E (3) C9e4 f18E (4)**

**Options:** Pick one correct ans

1

2

3

4

**Solution description**  
Observation

---

**Critical Section**

Easy • 10/10

**Problem statement**  
A minimum of \_\_\_\_\_ variable(s) is/are required to be shared between processes to solve the critical section problem.

a) one  
b) two  
c) three  
d) four

**Options:** Pick one correct ans

one

two

three

four

---

## 11.5.24

**Problem**

**Combining Access Modifiers**   10/10

**Problem statement** [Send feedback](#)

Which of the following access modifiers/specifiers can be combined to be used together in a single class?

**Options:** Pick one correct answer from below

Only The "Private" access modifier/specifier can be used

Only The "Private" and "Protected" access modifiers/specifiers can be used together

Only The "Private" and "Public" access modifiers/specifiers can be used together

All the three access modifiers/specifiers can be used together 

**Solution description**

Any of the classes can use any of the specifiers as and when needed. There are no restrictions on how many of them can be used together.

**Problem**

**Alternative Figure 3**   10/10

**Problem statement** [Send feedback](#)

Find out the alternative figure which contains figure (X) as its part.

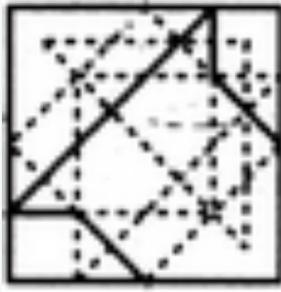

X      1      2      3      4

**Options:** Pick one correct answer from below

3

4

**Solution description**



**Problem**

**Method Overriding Possible?**   10/10

**Problem statement** [Send feedback](#)

Method overriding can occur through only?

**Options:** Pick one correct answer from below

Abstract class

Interface

Inheritance

None of the above

**Solution description**

Method overriding can occur through inheritance only.

**12.5.24**

Easy • 10/10

**Problem statement**

In multilevel feedback scheduling algorithm \_\_\_\_\_. (Bitwise)

[Send feedback](#)

Options: Pick one correct answer from below

a process can move to a different classified ready queue

classification of ready queue is permanent

processes are not classified into groups

none of the mentioned

**Problem statement**

[Send feedback](#)

If  $a + b$  means,  $a$  is the sister of  $b$ ,  
 $a - b$  means  $a$  is the brother of  $b$ ,  
 $a * b$  means  $a$  is the daughter of  $b$ ,  
 $a / b$  means  $a$  is the mother of  $b$ .  
Q. How many females are there in the following relationship?  $I + m - n + o - p * q$

2

3

4

Can't be determined



**Solution description**

$I + m - n + o - p * q$  can be read as  $I$  is the sister of  $m$ ,  $m$  is the brother of  $n$ ,  $n$  is the sister of  $o$ ,  $o$  is the brother of  $p$  and  $p$  is the daughter of  $q$ . Thus,  $I$ ,  $n$  and  $p$  are females,  $m$  and  $o$  are males and we do not know the gender of  $q$ . Hence, we cannot be sure about the number of females in the string.

**Find the output**

Easy • 10/10

**Problem statement**

[Send feedback](#)

What is the output of the following code?  
public class Solution {  
 public static void main(String args[]) {  
  
 int x = -2147483648;  
 System.out.println(x - 1);  
 }  
}

Options: Pick one correct answer from below

2147483647

-2147483647

Error

None

**Solution description**

The above program is the example of underflow in java.

## 13.5.24

**Edward's left**

Easy • 10/10

**Problem statement**

[Send feedback](#)

Eight people are sitting around a round table facing inwards. Alex is two seats to Sophie's left. Adam is three seats to Alex's right. Michelle is two seats to Alex's left. John is six seats to Lucy's right. Edward is six seats to John's right. Michael is not sitting next to Alex. Who sits one seat to Edward's left?

Options: Pick one correct answer from below

Michael



John

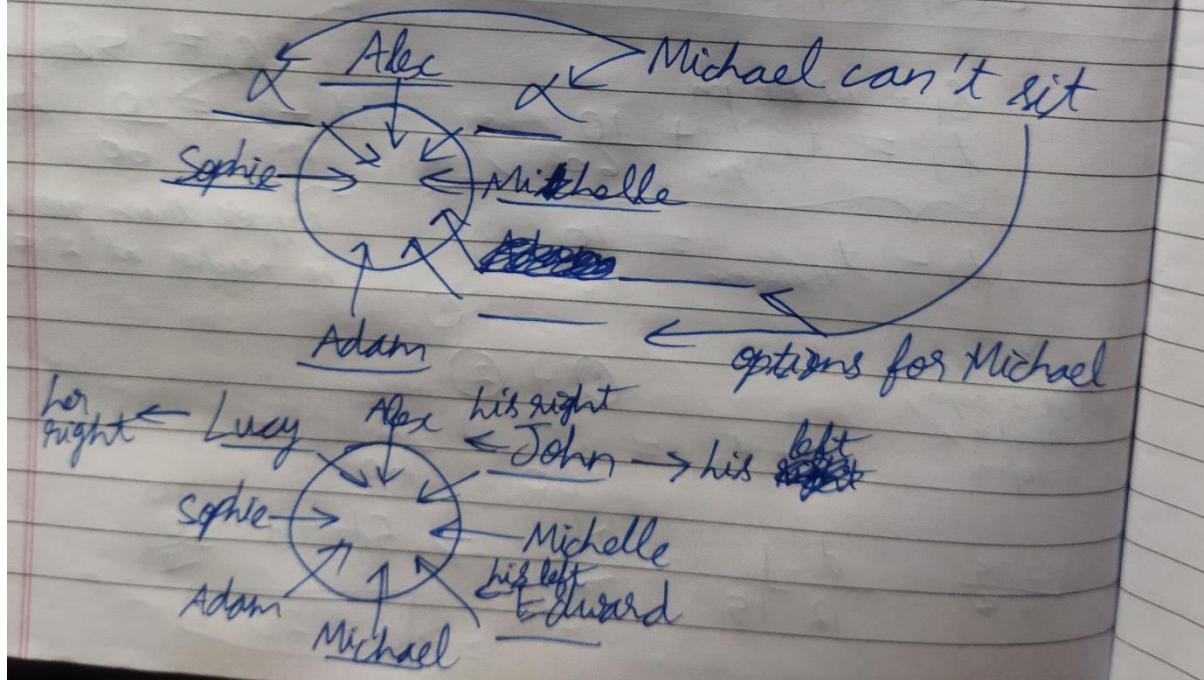
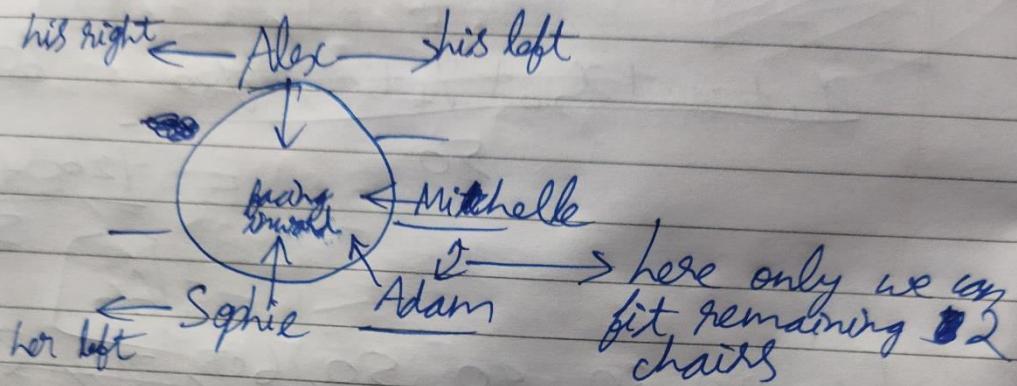
Alex

Lucy

**Solution description**

In this question, draw out the whole table. Because it's circular and all positions are relative to each other, we don't actually need to worry about where on the table we start. Start by mapping out eight seats and place Alex randomly, then Sophie and so on. To place John and Lucy we need to use a process of elimination by placing Edward in the only seat he can be in. We eventually reach the answer, which is (a) Michael.

We have 8 people : 8 chairs needed



#### Problem

Actor singer

Easy • 10/10

#### Problem statement

Statements: Some actors are singers. All the singers are dancers.

Conclusions:

1. Some actors are dancers.
2. No singer is an actor.

[Send feedback](#)

Options: Pick one correct answer from below

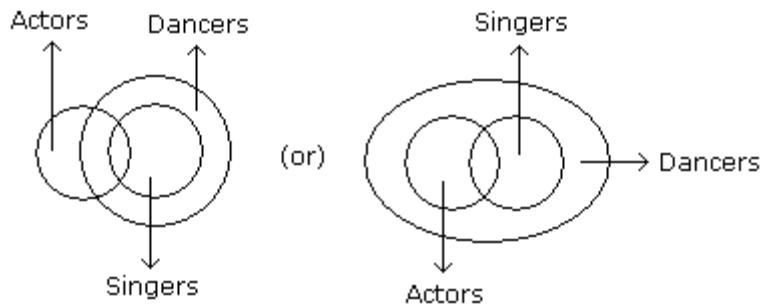
Only (1) conclusion follows

Only (2) conclusion follows

Either (1) or (2) follows

Neither (1) nor (2) follows

Both (1) and (2) follows



Only (1) follows.

**Problem statement** How to implement constructor chaining from base class. [Send feedback](#)

Using this()

Using super()

Both

None of the above

**Solution description**  
We can use super() keyword to call constructor from the base class.

**Problem statement** Which of the following statements about constructors is/are correct? [Send feedback](#)

The constructor name should be the same as the class name.

The default constructor invokes super() and sets all instance variables to a default value such as 0, null.

If we do not define a constructor for a class, the compiler will generate one for us.

If we want to call parent class constructor, we must call it in the constructor's first line.

All the above ✓

Easy • 10/10

**Problem statement** Which of the following indicates the maximum number of entities that can be involved in a relationship? (Amazon) [Send feedback](#)

**Options:** Pick one correct answer from

Minimum cardinality

Maximum cardinality

ERD

Greater Entity Count (GEC)

**14.5.24**

### Railway Station

Easy • 10/10

#### Problem statement

[Send feedback](#)

Rohit walks at speed of 12 kmph and he reaches the railway station 10 min after the train has gone and by walking at 15 kmph, he reaches at railway station 10 min before the train has gone. Find the distance from his home to the railway station.

Options: Pick one correct

10

40

45

20

The handwritten solution shows the following steps:

$$s_1 = 12 \text{ kmph}$$
$$t_1 = t_{\text{train goes}} + \frac{10}{60} \text{ hrs}$$
$$s_2 = 15 \text{ kmph}$$
$$t_2 - t_{\text{train goes}} = \frac{10}{60} \text{ hrs} \rightarrow ②$$
$$t_1 - t_{\text{train goes}} = \frac{10}{60} \text{ hrs} \rightarrow ①$$

Suppose train goes at 3:00pm, he reaches at 2:50pm

$$① + ②$$
$$t_1 - t_2 = \frac{10}{60} + \frac{10}{60}$$
$$\frac{d}{12} - \frac{d}{15} = \frac{20}{60} \Rightarrow 5d - 4d = \frac{20}{3}$$
$$\Rightarrow d = 20 \text{ km}$$

#### Problem

### Ratio of increased seats

Easy • 10/10

#### Problem statement

[Send feedback](#)

Seats for Mathematics, Physics, and Biology in a school are in the ratio 5 : 7 : 8. There is a proposal to increase these seats by 40%, 50% and 75% respectively. What will be the ratio of increased seats?

2 : 3 : 4

6 : 7 : 8

6 : 8 : 9

None of these

#### Solution description

Originally, let the number of seats for Mathematics, Physics and Biology be  $5x$ ,  $7x$  and  $8x$  respectively.

Number of increased seats are (140% of  $5x$ ), (150% of  $7x$ ) and (175% of  $8x$ ).

$(140 \times 5x)/100, (150 \times 7x)/100, (175 \times 8x)/100$

$= 7x, 21x/2, 14x$  The required ratio =  $7x : 21x/2 : 14x$

$= 14x : 21x : 28x$

$= 2 : 3 : 4$ .

Maths: Physics: Bio = 5:7:8

After increasing by 40%, 50%, & 75% respectively

$$\text{maths} = 5x + \left(5x \times \frac{40}{100}\right) = 5x + 2x = 7x$$

$$\text{Physics} = 7x + \left(7x \times \frac{50}{100}\right) = \frac{21x}{2}$$

$$\text{Bio} = 8x + \left(8x \times \frac{75}{100}\right) = 8x + 6x = 14x$$

$$\therefore \text{New ratio} = 7x : \frac{21x}{2} : 14x$$

$$= 14:21:28$$

$$= 2:3:4$$

## 15.5.24

### Problem

#### How many steps?

Easy • 10/10

#### Problem statement

Send feedback

We have a string "C W 23 43 56 H B 71". How many steps will be required to complete the rearrangement?

Rules for the rearrangement :

1. Put the numbers and character alternatively during rearrangement.
2. Start the rearrangement with number.
3. Put numbers in descending order and characters in ascending order alternatively.
4. Every character or number movement will be recorded as 1 step and we can move only one character or number at a time.

2

8

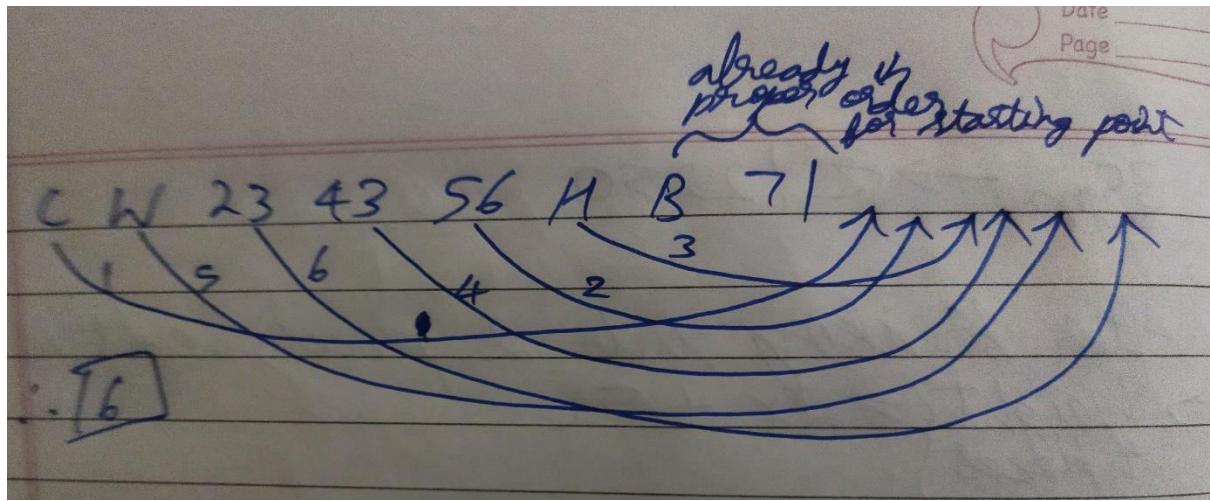
5

6

#### Solution description

The rearrangement follows the following pattern:

Input: C W 23 43 56 H B 71  
Step 1: 71 C W 23 43 56 H B  
Step 2: 71 B C W 23 43 56 H  
Step 3: 71 B 56 C W 23 43 H  
Step 4: 71 B 56 C 43 W 23 H  
Step 5: 71 B 56 C 43 H W 23  
Step 6: 71 B 56 C 43 H 23 W  
Hence, there are six steps for this



## 16.5.24

### Problem

Relation Entry

Easy • 10/10

**Problem statement**

[Send feedback](#)

\_\_\_\_\_ not applicable condition can be represented in relation entry as



**Options:** Pick one correct answer from below

NA

0

NULL

. Blank Space

**Solution description**

NULL always represents that the value is not present.

### Problem

Price of third variety

Easy • 10/10

**Problem statement**

[Send feedback](#)

Tea worth Rs. 126 per kg and Rs. 135 per kg are mixed with a third variety in the ratio 1 : 2. If the mixture is worth Rs. 153 per kg, the price of the third variety per kg will be:  
(answer up to 2 decimal places)



Rs. 169.50

Rs. 170

Rs. 175.50

Rs. 180



**Solution description**

Since the first and second varieties are mixed in equal proportions.  
So, their average price =  $\text{Rs.}(126 + 135)/2$   
= Rs. 130.50 So, the mixture is formed by mixing two varieties, one at Rs. 130.50 per kg and the other at say, Rs.  $x$  per kg in the ratio 2 : 1, i.e., 1 : 1. We have to find  $x$ .  
By the rule of alligation, we have:  
 $(x - 153)/22.50 = 1$   
 $x - 153 = 22.50$   
 $x = 175.50$

**Problem**

**Get the value!**   10/10

**Problem statement** [Send feedback](#)

What is the output of the following code?

```
public class Solution {  
  
    public int getSum(int a, int b) {  
        int sum = a + b;  
    }  
  
    public static void main(String args[]) {  
  
        Solution obj = new Solution();  
        System.out.println(obj.getSum(10, 20));  
    }  
}
```

**Options:** Pick one correct answer from below

30  
 Runtime error  
 Compilation error  
 None of the above

**Solution description**  
In the above program, we have defined a method that takes two arguments and returns a value. But in the method body it doesn't return any value. Therefore we got an error.

## 17.5.24

**Plastic cups**   10/10

**Problem statement** [Send feedback](#)

The small red plastic cup is three-quarters full. The large blue plastic cup is also three-quarters full. The small green plastic cup is only a quarter full. The purple cup has even less liquid than the small green plastic cup, but the pink plastic cup is fuller than the small red plastic cup.  
Statement: The green plastic cup is the same size as the purple cup.

**Options:** Pick one correct answer from below

True  
 False  
 Cannot say

**Solution description**  
This question is much more complex and has many pieces of information that are irrelevant to the question. In this case, it doesn't matter how full each cup is, as we're only concerned with the size of the cup. We aren't told anything about the size of the purple cup in question, so we are unable to say for sure whether the statement is true or false. Everything about how full the cups are is meant to distract you.

**29th day of the week**   10/10

**Problem statement** [Send feedback](#)

If the third day of a month is Monday, then which day of the week will be the fifth day from the 21st of that month ?

**Options:** Pick one correct answer from below

Friday  
 Sunday  
 Wednesday  
 Tuesday

**Solution description**  
The fifth day from 21st of that month will be 26th day of the month. Now, 3rd day of the month is Monday. So, 24th day will also be the Monday. Therefore, 26th of the month will be Wednesday. Hence, option (C) is the correct answer.

### Find the output II

Easy • 10/10

#### Problem statement

What is the output of the following code?

```
#include <iostream>
using namespace std;

int main() {
    int a[];
    int a[4] = {1,2,3,4};
    cout << a[0];

    return 0;
}
```

[Send feedback](#)

Options: Pick one correct answer from below

1

2

4

Compiler error

#### Solution description

If you do not initialize an array, you must mention ARRAY SIZE.

## 18.5.24

Easy • 10/10

#### Problem statement

[Send feedback](#)

What will be the output of the following Python code?

```
print([i.lower() for i in "NINJA"])
```

Options: Pick one correct answer

['n', 'i', 'n', 'j', 'a']

'ninja'

['ninja']

'NINJA'

### Arithmetic Exception

Easy • 10/10

#### Problem statement

[Send feedback](#)

What will be the output of the following Python code?

```
class ZeroDenominatorError(Exception):
    pass

try:
    a = 10
    b = 0
    if(b==0):
        raise ZeroDivisionError()
    c = a/b
except ZeroDivisionError:
    print('Zero Division Error occurred')

z = ZeroDenominatorError()
```

Options: Pick one correct answer from below

Zero Division Error occurred

Error - Zero Divison Error

Error - ZeroDenominatorError

None of the Above

#### Solution description

In the above code snippet, we are raising ZeroDivisionError and there is no exception for that so it will throw ZeroDivisionError.

## 19.5.24

**Attribute type**

Easy • 10/10

**Problem statement**

In a relation between the entities the type and condition of the relation should be specified. That is called as \_\_\_\_\_ attribute. (Persistent)

**Solution description**

Consider the entity sets student and section, which participate in a relationship set. We may wish to store a descriptive attribute grade with the relationship to record the grade that a student got in the class.

**Problem**

**Problem statement**

Directions:  
A word and number arrangement machine when given an input line of words and numbers rearranges them by following a particular rule in each step. The following is an illustration of input and rearrangement.  
Input: british 32 71 greece firangi spanish 65 84  
Step I spanish british 32 71 greece firangi 65 84  
Step II spanish 84 british 32 71 greece firangi 65  
Step III spanish 84 greece british 32 71 firangi 65  
Step IV spanish 84 greece 71 british 32 firangi 65  
Step V spanish 84 greece 71 firangi british 32 65  
Step VI spanish 84 greece 71 firangi 65 british 32

and Step VI is the last step of the rearrangement. As per the rules followed in the above steps, find out in the following question the appropriate step for the given input.

Input: 'angry happy 49 24 fussy winky 34 69'.  
Which of the following steps will be the last but one?

**Solution description**

Input angry happy 49 24 fussy winky 34 69  
Step I winky angry happy 49 24 fussy 34 69  
Step II winky 69 angry happy 49 24 fussy 34  
Step III winky 69 happy angry 49 24 fussy 34  
Step IV winky 69 happy 49 angry 24 fussy 34  
Step V winky 69 happy 49 fussy angry 24 34  
Step VI winky 69 happy 49 fussy 34 angry 24  
So, Step V is the first step from last.

**Return home**

Easy • 10/10

**Problem statement**

Statement: Sachin's mother instructed him to return home by train if it rains heavily.  
Assumption 1:Sachin may not be able to decide himself if it rains heavily.  
Assumption 2:The trains may ply even if it rains heavily.

**Solution description**

Sachin's mother has instructed him as a matter of caution and out of care for her child, and not because Sachin himself would not be able to decide. So, I is not implicit. Besides, Sachin's mother instructs him to take to train journey in case it rains heavily. So, II is implicit.

**Default Parameters**

Easy • 10/10

**Problem statement**

While declaring the function for the first time all the default parameter should appear\_\_\_\_\_

**Send feedback**

**Options:** Pick one correct answer from below

To the rightmost side of the parameter list ✓

To the leftmost side of the parameter list

Anywhere inside the parameter list

Middle of the parameter list

**Solution description**

Default parameters are defined to the rightmost side of the parameter list in a function to differentiate between the normal and default parameters; for example, if a function is defined as fun(int x = 5, int y), then if we call fun(10) then 10 should be given to x or y because one can apply both logics like x = 10 already defined and 10 passed is for y but if compiler reads it from left to right it will think it is for x and no parameter is given for y; therefore, the compiler will give an error.

---

## 20.5.24

**Problem**

```
using namespace std;
```

```
class A {
    float d;
public:
    int a;
    void modify(int i) {
        a = i;
    }
    void getA() {
        cout << a;
    }
};
```

```
class B: public A {
    int a = 15;
public:
    void print() {
        cout << a;
    }
};
```

**Options:** Pick one correct answer from below

1010

1510 ✓

1515

5110

**Solution description**

When modify() is called it sets parents class 'a' variable = 10. When print() is called, then 'a' from class B is printed, and when getA() is called, then 'a' from class A is printed.

---

```
int main() {
    B b;
    b.modify(10);
    b.print();
    b.getA();

    return 0;
}
```

---

**✓ Find the output VI**

Easy • 10/10

**Problem statement**

Let A be a square matrix of size  $n \times n$ . Consider the below pseudocode. What is the expected output?

```
C = 100;
for i = 1 to n do
    for j = 1 to n do
        Temp = A[i][j] + C;
        A[i][j] = A[j][i];
        A[j][i] = Temp - C;

for i = 1 to n do
    for j = 1 to n do
        Output(A[i][j]);
```

[Send feedback](#)

**Options:** Pick one correct answer from below

The matrix A itself

Transpose of matrix A

Adding 100 to the upper diagonal elements and subtracting 100 from diagonal elements of A

None of the above

**Solution description**

If we take a look at the inner statements of the first loops, we can notice that the statements swap  $A[i][j]$  and  $A[j][i]$  for all  $i$  and  $j$ . Since the loop runs for all elements, every element  $A[i][m]$  would be swapped twice, once for  $i = l$  and  $j = m$  and then for  $i = m$  and  $j = l$ . Swapping twice means the matrix doesn't change

**✓ Form square 2**

Easy • 10/10

**Problem statement**

Select three figures out of the following five figures which when fitted into each other would form a square.

[Send feedback](#)

**Options:** Pick one correct answer from below

1, 2, 4

1, 4, 5

2, 3, 4

1, 2, 5

**Solution description**

Figures 2, 3, and 4 will form the square.

**✓ Run Java code**

Easy • 10/10

**Problem statement**

Which of the following commands is used to run java code?

[Send feedback](#)

**Options:** Pick one correct answer

javac file\_Name.java

Javac file\_Name

java file\_Name

java file\_Name.java

**21.5.24**

Easy • 10/10

**Problem statement**

Which among the following best defines single-level inheritance?

[Send feedback](#)

A class inheriting a derived class

A class inheriting a base class

A class inheriting a nested class

A class that gets inherited by two classes

**Solution description**

A class inheriting a base class defines single-level inheritance. Inheriting an already derived class makes it multilevel inheritance. And if two other classes inherit the base class, it is multiple inheritance.

**Problem statement**

[Send feedback](#)

What is the output of the following code?

```
public class Solution {  
  
    public static void main(String args[]) {  
  
        int x;  
        x = 10;  
        {  
            int y = 20;  
            System.out.print(x + " " + y);  
        }  
  
        System.out.print(x + " " + y);  
    }  
  
}
```

**Options:** Pick one correct answer from below

10 20 10 20

10 20 10

Compile time error

Runtime Error

**Solution description**

The second print statement doesn't have access to y, because the scope of the y is limited to block only.

Alive and Dead

Easy • 10/10

**Problem statement**

[Send feedback](#)

The probability of a man living for 50 years from today is 0.6 and the probability for his wife to live for 50 years from today is 0.5. Find the probability that both are alive after 50 years and one of them is dead? (give a comma separated answer eg : 1, 2 .Note there is space between , and 2) (Pegasystems 2019)

**Answer:**

0.3, 0.5

**Solution description**

$P(\text{man alive}) = 0.6 \text{ and } P(\text{wife alive}) = 0.5$   
 $P(\text{both are alive}) = P(\text{man alive}) \& P(\text{wife alive})$   
 $= 0.60 * 0.5 = 0.3$   
 $P(\text{man not alive}) = 1 - 0.6 = 0.4 \text{ and } P(\text{wife not alive}) = 1 - 0.5 = 0.5$   
 $P(\text{one of them is dead}) = (\text{man alive} \& \text{wife dead}) \text{ or } (\text{man dead} \& \text{wife alive})$   
 $= 0.60 * 0.5 + 0.40 * 0.5 = 0.5$

## 22.5.24

PROGRAM

Compile a Package

Easy • 10/10

**Problem statement**

[Send feedback](#)

Which of the following commands is used to compile a package?

**Options:** Pick one correct answer from below

javac -d . class\_name

java package\_name.class\_name

java package\_name

None of the above

**Solution description**

The javac -d . class\_name command is used to compile the java package.

Easy • 10/10

**Problem statement**

What is returned by instanceof operator?

[Send feedback](#)

boolean value

int value

double value

None of the above

**Solution description**

The instanceof operator is always returned either true or false.

Easy • 10/10

**Problem statement**

Where are the local variables and methods stored in memory?

[Send feedback](#)

Heap Memory

Stack Memory

Sometime in Stack memory and sometime in heap memory

JVM

**Solution description**

Local variables and methods are stored in the stack memory.

## 23.5.24

**Compilation in Java**

Easy • 10/10

**Problem statement**

Which of the following commands is used to compile java code?

[Send feedback](#)

javac file\_Name.java

Javac file\_Name

java file\_Name

java file\_Name.java

### Problem statement

What will be the output of the following Python code?

```
def foo():
    try:
        return 1
    finally:
        return 2

#Driver's code
k = foo()
print(k)
```

[Send feedback](#)

1

2

3

error, the

### ✓ Find the output V

Easy • 10/10

### Problem statement

[Send feedback](#)

What is the output of the following code?

```
#include <iostream>
using namespace std;

int main() {
    int a[10] = {1, 2, 3, 4, 5, 6, 7, 8};
    int p = (a + 1)[5];
    cout << p;
    return 0;
}
```

**Options:** Pick one correct answer from below

6

7

1

Error

### Solution description

$x[i]$  is equivalent to  $*(x + i)$ , so  $(a + 1)[5]$  is  $*(a + 1 + 5)$ , i.e.  $a[6]$ .

Easy • 10/10

### Problem statement

[Send feedback](#)

What is the output of the following code?

```
public class Solution {
    public static void main(String args[]) {
        int a = 6;

        System.out.println(~a = " + ~a);
    }
}
```

9

6

-7

-8

### Solution description

In the above program, we are using the Bitwise complement operator. It simply inverts the bits. #### The binary representation of 6 is 000000000000000000000000000000110, after performing inverting the bits, it becomes 11111111111111111111111111111001. So the decimal representation would be -7.

**25.5.24**

### ✓ Use of instanceof

Easy • ⚡ 10/10

#### Problem statement

We can use instanceof operator to check if an object is

[Send feedback](#)

Options: Pick one correct answer from below

- an instance of class
- an instance of subclass
- an instance of a class that implements a particular interface
- All the above

#### Solution description

We can use instanceof operator to check if an object is an instance of a class, an instance of a subclass, or an instance of a class that implements a particular interface.

Easy • ⚡ 10/10

#### Problem statement

[Send feedback](#)

What will be the output of the following code?

Suppose there is a list such that: l = [2,3,4].

If we want to print this list in reverse order, which of the following methods should be used?

- reverse(l)

- list(reverse([l]))

- reversed(l)

- list(reversed(l))

## 27.5.24

### ✓ Mutable Character Sequences

Easy • ⚡ 10/10

#### Problem statement

[Send feedback](#)

Which class(es) is/are used to create mutable character sequences?

Options: Pick one correct answer from below

- String
- StringBuilder & String
- StringBuffer & StringBuilder
- None of these

#### Solution description

StringBuffer & StringBuilder are mutable as their length and sequence content can be modified at any time by using specific method calls.

### ✓ Find the character

Easy • ⚡ 10/10

#### Problem statement

[Send feedback](#)

Study the following arrangement carefully and answer the question that follows:  
S K 6 £ Q 2 R \* C F 8 E \$ G 2 # 4 9 L N 3 U V 5 Y @ B 7 W 9

Which of the following letters, numbers, or symbols will be third to the left or a fifth of the left?

Options: Pick one correct

- Q
- S
- 6
- 2

## 9.6.24

Problem

How many years

Easy • 10/10

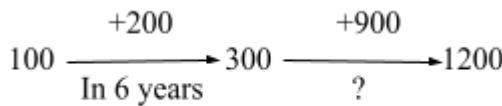
Problem statement [Send feedback](#)

The Sum of money at simple interest tripled in 6 years. In how many years would it become 12 times itself? ( AWS hiring 2020)

Solution description

Let if money was 100 it has become 300 after 6 years. That means an addition of 200 in 6 years and money became 12 times itself i.e 1200.  
 If alt text[]  
[https://ninjasfiles.s3.amazonaws.com/asset\\_0000000000000408\\_1617877379\\_pl\\_q3.png](https://ninjasfiles.s3.amazonaws.com/asset_0000000000000408_1617877379_pl_q3.png) 6 years interest is 200 and for another 6 years interest would be again 200 because annual interest is the same. Hence in every 6 years, you will add 200.  
 So; after 12 years the amount will become =  $300+200 = 500$ .  
 After 18 years the amount will become =  $500+200 = 700$ .  
 After 24 years the amount will become =  $700+200 = 900$ .  
 After 30 years the amount will become =  $900+200 = 1100$ .  
 Now you need 100 Rs interest more.  
 200 Rs interest in 6 years. So; 100 Rs Interest in 3years.  
 So; after 33 years the amount will become =  $1100+100 = 1200$   
 Hence 1200 will become in 33 years.

---



Problem

Beam

Easy • 10/10

Problem statement [Send feedback](#)

In a certain code language "EASY" is written as "5117". In the same code language, how will "BEAM" be written as?

Options: Pick one correct answer from below

4512

4567

2513

2514

Solution description

E=5th letter, A=11th letter, s=19th(1+9=10(1+0))=1 B=2, E=5, A=1, M=13(1+3)=4 BEAM=2514

---

## 13.6.24

Problem

Types Of Inheritance

Easy • 10/10

Problem statement [Send feedback](#)

How many types of inheritance in Python?

Options: Pick one correct answer from below

2

1

3

5

Solution description

There are five types of inheritance in python. These are single inheritance, multilevel inheritance, multiple inheritance, hierarchical inheritance and hybrid inheritance.

---

### Chr Output

Easy •  10/10

#### Problem statement

What will be the output of the following code?

```
>>>chr(ord('A'))
```

[Send feedback](#)



**Options:** Pick one correct answer from below

A

B

a

Error

#### Solution description

Chr is a function that returns a character according to the given ASCII value.

