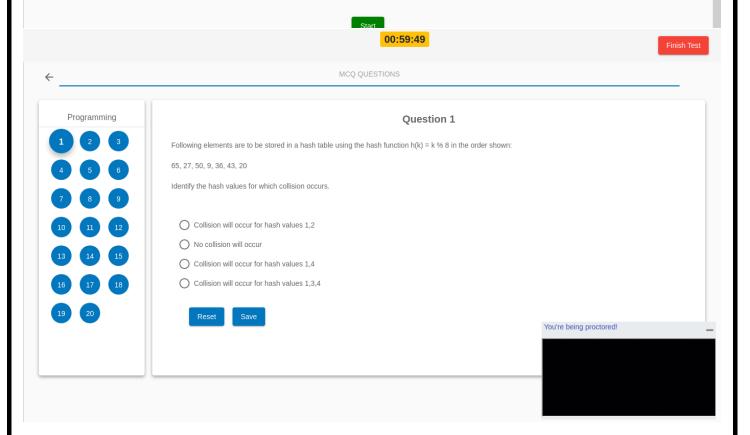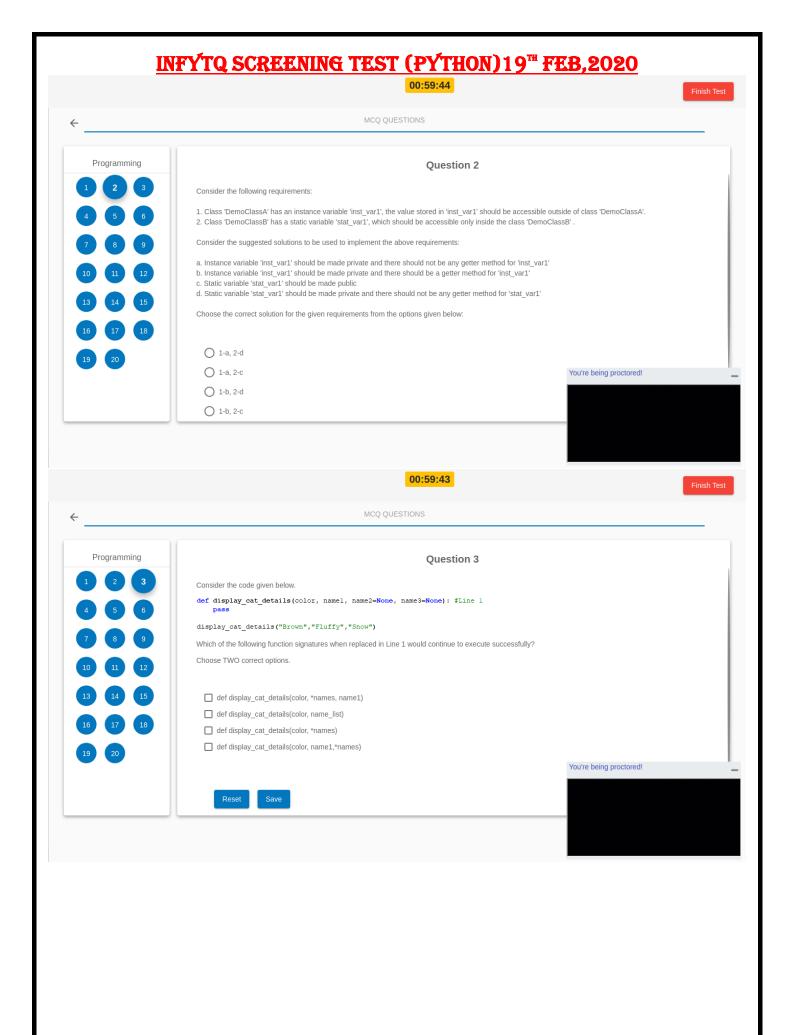`0:0:0`

INSTRUCTIONS

General Instructions:

1. Please DO NOT carry mobile phone or any other electronic gadget during the assessment
2. Once you log in and start the assessment, the application will go into full screen mode and you should not access any other application.
3. The timer at the top of the screen will display the time left for the completion of the assessment. The exam will be auto closed when the time is up.
4. We will track the movement out of the assessment application to other applications and provide a warning message when such an instance is recorded. This would be considered as a malpractice and you could be barred from continuing further.
5. Please DO NOT click on 'Finish Test' unless you want to complete the assessment and submit for evaluation. You will not be allowed to login again after finishing the test.
6. The result of this assessment will be informed over email.
7. **NOTE:** In case of any issues you can mail us at : **infytq@infosys.com** Or just give us a call on **1800-3000-4747**

Assessment related Instructions:

1. This assessment has ONLY Objective(MCQ) questions
2. The duration of the assessment is 60 minutes
3. There will be 40 questions and the split will be as follows:
    1. 20 on programming concepts in Java or Python based on the option that you selected during registration
    2. 10 on Database Management System (DBMS Concepts)
    3. 10 on Analytical and logical reasoning
4. Each question carries 1 mark
5. In the case of questions with multiple correct answers (checkbox type), marks will be awarded ONLY when all the right answers are chosen.
6. You will lose 0.25 marks for a wrong answer
7. Unanswered questions will not have negative marking. You can click on the "Reset" button if you want to cancel an already selected option.
8. **IMPORTANT:** Each question should you choose to select an answer must be saved before proceeding to the next question.

Start

`00:59:49`

Finish Test

← MCQ QUESTIONS

Programming

1	2	3
4	5	6
7	8	9
10	11	12
13	14	15
16	17	18
19	20	

Question 1

Following elements are to be stored in a hash table using the hash function $h(k) = k \% 8$ in the order shown:

65, 27, 50, 9, 36, 43, 20

Identify the hash values for which collision occurs.

○ Collision will occur for hash values 1,2

○ No collision will occur

○ Collision will occur for hash values 1,4

○ Collision will occur for hash values 1,3,4

Reset Save

You're being proctored!

Programming

1 2 3
4 5 6
7 8 9
10 11 12
13 14 15
16 17 18
19 20

Question 2

Consider the following requirements:

1. Class 'DemoClassA' has an instance variable 'inst_var1', the value stored in 'inst_var1' should be accessible outside of class 'DemoClassA'.
2. Class 'DemoClassB' has a static variable 'stat_var1', which should be accessible only inside the class 'DemoClassB' .

Consider the suggested solutions to be used to implement the above requirements:

a. Instance variable 'inst_var1' should be made private and there should not be any getter method for 'inst_var1'
b. Instance variable 'inst_var1' should be made private and there should be a getter method for 'inst_var1'
c. Static variable 'stat_var1' should be made public
d. Static variable 'stat_var1' should be made private and there should not be any getter method for 'stat_var1'

Choose the correct solution for the given requirements from the options given below:

○ 1-a, 2-d

○ 1-a, 2-c

○ 1-b, 2-d

○ 1-b, 2-c

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00:59:43

Finish Test

MCQ QUESTIONS

Programming

1 2 3
4 5 6
7 8 9
10 11 12
13 14 15
16 17 18
19 20

Question 3

Consider the code given below.

```python
def display_cat_details(color, name1, name2=None, name3=None): #Line 1
    pass

display_cat_details("Brown","Fluffy","Snow")
```

Which of the following function signatures when replaced in Line 1 would continue to execute successfully?

Choose TWO correct options.

☐ def display_cat_details(color, *names, name1)

☐ def display_cat_details(color, name_list)

☐ def display_cat_details(color, *names)

☐ def display_cat_details(color, name1,*names)

Reset   Save

You're being proctored!

Programming

(1) (2) (3)
(4) (5) (6)
(7) (8) (9)
(10) (11) (12)
(13) (14) (15)
(16) (17) (18)
(19) (20)

Question 4

Consider the below inputs:

input_linked_list (Head to Tail): 1 ->2 ->5 ->3

input_stack (Top to Bottom): 4, 2, 5, 10

```python
def generate(input_linked_list, input_stack):
    temp= input_linked_list.get_head()
    #get_head() returns the head node
    element=0
    while(temp.get_next() is not None):
        #get_next() returns the address of the next node
        temp.set_data(temp.get_data()+temp.get_next().get_data()+element)
        #get_data() returns the data stored in the node
        if temp.get_data()%2!=0:
            temp.set_data(temp.get_data()+input_stack.pop())
            #set_data(data) updates the data stored in the node
            element=temp.get_data()
        else:
            input_stack.push(element)
            element=temp.get_next().get_data()
        temp=temp.get_next()
    temp.set_data(temp.get_data()+input_stack.pop())
```

What will be the content of **input_linked_list** from head to tail and **input_stack** from top to bottom after the execution

Assumption: Stack and LinkedList classes, with the necessary methods, are available

You're being proctored!

Programming

(1) (2) (3)
(4) (5) (6)
(7) (8) (9)
(10) (11) (12)
(13) (14) (15)
(16) (17) (18)
(19) (20)

```python
            input_stack.push(element)
            element=temp.get_next().get_data()
        temp=temp.get_next()
    temp.set_data(temp.get_data()+input_stack.pop())
```

What will be the content of **input_linked_list** from head to tail and **input_stack** from top to bottom after the execution of the function **generate**?

Assumption: Stack and LinkedList classes, with the necessary methods, are available

○ input_linked_list (Head to Tail): 7 ->14 ->20 ->5
input_stack (Top to Bottom): 5, 10

○ input_linked_list (Head to Tail): 5 ->7 ->10 ->5
input_stack (Top to Bottom): 2, 5, 10

○ input_linked_list (Head to Tail): 7 ->14 ->20 ->3
input_stack (Top to Bottom): 5, 10

○ input_linked_list (Head to Tail): 7 ->14 ->20 ->5
input_stack (Top to Bottom): 10

[Reset] [Save]

You're being proctored!

Programming

1	2	3
4	**5**	6
7	8	9
10	11	12
13	14	15
16	17	18
19	20	

Question 5

Mr. Alex is a well known staff member in a popular college. He has been serving as Head Of the Department(HOD) for 18 years. The HOD has a team of teachers working based on the instructions given by him. The HOD and teachers need to swipe their ID card to enter the college. Like teachers, the HOD is required to deliver sessions. The HOD, in comparison with his team members, has additional responsibilities to ensure smooth functioning and closure of operations. Considering the above scenario, what would be the most suitable relationship that can be modelled between the HOD and his team?

○ Inheritance

○ Aggregation

○ Dependency

○ Composition

Reset   Save

You're being proctored!

Programming

1	2	3
4	5	**6**
7	8	9
10	11	12
13	14	15
16	17	18
19	20	

Question 6

Consider the code given below:

```python
class Customer:
    counter=100
    def __init__(self):
        self.customer_id=Customer.counter
        Customer.counter+=1
        self.discount=5

    def calculate_total_amount(self,amt):
        return amt*(100-self.discount)/100

class PrivilegedCustomer(Customer):
    def __init__(self):
        super().__init__()
        self.privilege_points=100

    def calculate_total_amount(self,amt):
        amount= _____          #Line 1
        return amount - ( _____ ) // 10    #Line 2

privileged_customer=PrivilegedCustomer()
print('Customer id:', _____ )    #Line 3
print('Amount:',privileged_customer.calculate_total_amount(1000))
```

What must be written in the blanks at Line 1, Line 2 and Line 3 in order to get the following output?

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00:59:30

Finish Test

MCQ QUESTIONS

Programming

1 2 3
4 5 6
7 8 9
10 11 12
13 14 15
16 17 18
19 20

Customer id: 100
Amount: 840.0

Note: Line numbers are only for reference

○ Line 1: super().calculate_total_amount(amt)
Line 2: self.privilege_points+amt
Line 3: privileged_customer.counter

○ Line 1: self.calculate_total_amount(amt)
Line 2: self.privilege_points+amt
Line 3: privileged_customer.customer_id

○ Line 1: super().calculate_total_amount(amt)
Line 2: super().privilege_points+amt
Line 3: privileged_customer.customer_id

○ Line 1: super().calculate_total_amount(amt)
Line 2: self.privilege_points+amt
Line 3: privileged_customer.customer_id

Reset   Save

You're being proctored!

00:59:25

Finish Test

MCQ QUESTIONS

Programming

1 2 3
4 5 6
7 8 9
10 11 12
13 14 15
16 17 18
19 20

Question 7

What would be the values of **output_queue** from front to rear when the below **input_queue** is passed as input to the given function?

input_queue(front to rear): 3, 7, 6, 2, 5, 6, 3, 2

```python
def function(input_queue):
    output_queue=Queue(10)
    while(not input_queue.is_empty()):
        var=input_queue.dequeue()
        if var<=5:
            output_queue.enqueue(input_queue.dequeue()+1)
        else:
            output_queue.enqueue(output_queue.dequeue()+input_queue.dequeue())
    return output_queue
```

Assumption: Queue class, with the necessary methods, is available

○ 3, 6, 13, 3

○ 10, 7, 3

○ 10, 7, 3, 2

○ 8, 7, 5

You're being proctored!

Programming

1	2	3
4	5	6
7	8	9
10	11	12
13	14	15
16	17	18
19	20	

Question 8

Consider the below code:

```python
def vending_machine(insert_money,item_id):
    if item_id == 101 and insert_money:
        #Line1
    #Line2

insert_money= True
item_id = 101
print(vending_machine(insert_money,item_id))
```

Identify the statements to be replaced in Line1 and Line2 respectively such that the output is as below:

```
Disperse the product
Function executed successfully
```

○ Line1 : return "Disperse the product"
  Line2 : return "Function executed successfully"

○ Line1 : print("Disperse the product")
  Line2 : return "Function executed successfully"

You're being proctored!

```python
item_id = 101
print(vending_machine(insert_money,item_id))
```

Identify the statements to be replaced in Line1 and Line2 respectively such that the output is as below:

```
Disperse the product
Function executed successfully
```

○ Line1 : return "Disperse the product"
  Line2 : return "Function executed successfully"

○ Line1 : print("Disperse the product")
  Line2 : return "Function executed successfully"

○ Line1 : return "Disperse the product"
  Line2 : print("Function executed successfully")

○ Line1 : print("Disperse the product")
  Line2 : print("Function executed successfully")

Reset   Save

You're being proctored!

00:59:17

Finish Test

MCQ QUESTIONS

Programming

1 2 3
4 5 6
7 8 9
10 11 12
13 14 15
16 17 18
19 20

Question 9

Consider the following Python code that depicts **BINARY SEARCH** algorithm for the list of elements sorted in **ASCENDING ORDER**

```
1  def binary_search(num_list, element):
2      low=0
3      high=len(num_list)-1
4      mid=(low+high)//2
5      while(num_list[mid]!=element and low<high):
6          if(element>num_list[mid]):
7              low=mid+1
8          else:
9              high=mid-1
10         mid=(low+high)//2
11     if(element == num_list[mid]):
12         print("Element is in the list at index",mid)
13     else:
14         print("Element is not in the list")
15
```

Note: Line numbers are for reference only

If it has to be used on the list of elements sorted in **DESCENDING ORDER**, what modification needs to be done in the You're being proctored!

○ Change the code at line number 4 and 10 as mid=int((low+high)/2)

00:59:16

Finish Test

MCQ QUESTIONS

Programming

1 2 3
4 5 6
7 8 9
10 11 12
13 14 15
16 17 18
19 20

```
7              low=mid+1
8          else:
9              high=mid-1
10         mid=(low+high)//2
11     if(element == num_list[mid]):
12         print("Element is in the list at index",mid)
13     else:
14         print("Element is not in the list")
15
```

Note: Line numbers are for reference only

If it has to be used on the list of elements sorted in **DESCENDING ORDER**, what modification needs to be done in the given code?

○ Change the code at line number 4 and 10 as mid=int((low+high)/2)

○ Change the code at line number 6 as if(num_list[mid]==element):

○ Change the code at line number 6 as if(element< num_list[mid]):

○ Change the code at line number 6 as if(element>=num_list[mid]):

Reset   Save

You're being proctored!

00:59:14

Finish Test

MCQ QUESTIONS

Programming

1 2 3
4 5 6
7 8 9
10 11 12
13 14 15
16 17 18
19 20

Question 10

John is visiting a zoo. After roaming for sometime, he finds that he has lost his way. John wants to reach the entry/exit gate. He remembers 'Vans Ice-Cream', a landmark which he saw while strolling in the zoo. John finds that there are 3 ways to reach Vans Ice-Cream from his current location and from Vans Ice-Cream there are 4 ways to reach the entry/exit gate.
Considering the above scenario, identify the most suitable data structure that can be used to represent all possible ways to reach the entry/exit gate from John's current location?

○ Graph

○ Tree

○ Stack

○ Queue

Reset   Save

You're being proctored!

00:59:12

Finish Test

MCQ QUESTIONS

Programming

1 2 3
4 5 6
7 8 9
10 11 12
13 14 15
16 17 18
19 20

Question 11

What will be the output of the code given below?

```python
class InvalidLengthException(Exception):
    pass
class Mobile:
    def __init__(self,mob_no):
        self.__mob_no=mob_no
    def validate_mobile_number(self):
        try:
            if(len(self.__mob_no)!=10):
                raise InvalidLengthException
            else:
                print("Valid Mobile Number")
        except InvalidLengthException:
            print("Invalid Length - inside class")
        print("Inside the class")
mob=Mobile("987665")
try:
    mob.validate_mobile_number()
    print("Outside the class")
except InvalidLengthException:
    print("Invalid Length - outside class")
```

You're being proctored!

00:59:11

Finish Test

MCQ QUESTIONS

Programming

1 2 3
4 5 6
7 8 9
10 **11** 12
13 14 15
16 17 18
19 20

```
        mob.validate_mobile_number()
        print("Outside the class")
except InvalidLengthException:
        print("Invalid Length - outside class")
```

○ Invalid Length - inside class
Inside the class
Outside the class

○ Invalid Length - inside class
Inside the class
Invalid Length - outside class

○ Invalid Length - inside class
Invalid Length - outside class

○ Invalid Length - inside class
Outside the class

Reset   Save

You're being proctored!

00:59:08

Finish Test

MCQ QUESTIONS

Programming

1 2 3
4 5 6
7 8 9
10 11 **12**
13 14 15
16 17 18
19 20

Question 12

Consider a stack **stack1** with the following elements:

stack1 (Top to Bottom)	14	35	22	10	5	20

Consider the following Python code:

```python
def stack_function(stack1):
    stack2=Stack(5)
    while not stack1.is_empty():
        if (stack1.pop()%5==0) :
            break
        else:
            if (not stack1.is_empty()):
                stack2.push(stack1.pop()*2)
                if stack2.is_empty():
                    stack1.pop()
                else:
                    stack2.push(10)
    return stack2
```

What will be the content of **stack2** from TOP to BOTTOM after the execution of the above function when **stack1** is pa

Assumption: Stack class, with the necessary methods, is available

You're being proctored!

Programming

1	2	3
4	5	6
7	8	9
10	11	12
13	14	15
16	17	18
19	20	

```python
        else:
            if (not stack1.is_empty()):
                stack2.push(stack1.pop()*2)
                if stack2.is_empty():
                    stack1.pop()
                else:
                    stack2.push(10)
    return stack2
```

What will be the content of **stack2** from TOP to BOTTOM after the execution of the above function when **stack1** is passed as input parameter?

Assumption: Stack class, with the necessary methods, is available

○ 10 20 10 70

○ 70 10 20 10

○ 50 20 10 70

○ 10 70 10 70

You're being proctored!

Reset   Save

Programming

1	2	3
4	5	6
7	8	9
10	11	12
13	14	15
16	17	18
19	20	

Question 13

Consider the code given below:

```python
def find_special_price(product_price_list):
    if len(product_price_list) == 1:
        return product_price_list[0]
    else:
        price = find_special_price(product_price_list[1:])
        if price > product_price_list[0]:
            return price
        else:
            return product_price_list[0]
```

Which of the following iterative code is equivalent to the code given above?

```python
def find_special_price(product_price_list):
    price=product_price_list[-1]
    index=0
    while index>len(product_price_list[index:]):
        if product_price_list[index]<price:
            price=product_price_list[index]
        index+=1
    return price
```

○

You're being proctored!

Programming

1 2 3
4 5 6
7 8 9
10 11 12
13 14 15
16 17 18
19 20

```python
def find_special_price(product_price_list):
    price=product_price_list[0]
    for product_price in product_price_list[2:]:
        if price<=product_price:
            price=product_price
    return price
```

○

```python
def find_special_price(product_price_list):
    price=product_price_list[0]
    for index in range(0,len(product_price_list[1:])):
        if price<product_price_list[index]:
            price=product_price_list[index]
    return price
```

○

```python
def find_special_price(product_price_list):
    price=product_price_list[0]
    index=1
    while index<=len(product_price_list)-1:
        if price>product_price_list[1]:
            price=product_price_list[1]
        index+=1
    return price
```

○

You're being proctored!

Programming

1 2 3
4 5 6
7 8 9
10 11 12
13 14 15
16 17 18
19 20

Question 14

What will be the output of the below Python code?

```python
class InvalidSkillException(Exception):
    pass
class Educator:
    total_allocations=101
    def __init__(self,skill):
        self.__skill=skill
    def validate_skill(self,skill_required):
        if(skill_required==self.__skill):
            Educator.total_allocations+=1
            return True
        else:
            raise InvalidSkillException
class ClassRoom:
    def __init__(self,educator):
        self.__educator=educator
        self.class_room_no=None
    def allocate_educator(self,skill_required,class_room_no):
        try:
            if(self.__educator.validate_skill(skill_required)):
                self.class_room_no=class_room_no
        except Exception:
            print("Something wrong")
        except InvalidSkillException:
            Educator.total_allocations-=1
            print("Invalid Skill")
edu=Educator("Java")
class_room1=ClassRoom(edu)
class_room1.allocate_educator("Java", "L2-73")
```

You're being proctored!

Programming

1 2 3
4 5 6
7 8 9
10 11 12
13 14 15
16 17 18
19 20

```
class_room2=ClassRoom(edu)
class_room2.allocate_educator("C++", "L1-75")
print(class_room1.class_room_no,class_room2.class_room_no)
print(Educator.total_allocations)
```

○ Something wrong
L2-73 L2-73
102

○ Something wrong
L2-73 None
102

○ Invalid Skill
L2-73 None
102

○ Invalid Skill
L2-73 L2-73
101

Reset   Save

You're being proctored!

Programming

1 2 3
4 5 6
7 8 9
10 11 12
13 14 15
16 17 18
19 20

Question 15

What is the output of the code given below?

```
def fun(input_list,index):
    try:
        output_list = [0]*len(input_list)
        output_list[index] = input_list[index]/int(input_list[index+1])
        return output_list
    except ValueError:
        print("Invalid value")
    except ZeroDivisionError:
        print("Division by zero")
    finally:
        print("End of function")
try:
    list1 = [2,4,'6',2,8]
    list2 = fun(list1, 4)
except TypeError:
    print("Invalid type")
except IndexError:
    print("Invalid index")
finally:
    print("End of program")
```

You're being proctored!

00:58:51

Finish Test

MCQ QUESTIONS

Programming

① ② ③
④ ⑤ ⑥
⑦ ⑧ ⑨
⑩ ⑪ ⑫
⑬ ⑭ **15**
⑯ ⑰ ⑱
⑲ ⑳

```
        print("Invalid type")
except IndexError:
        print("Invalid index")
finally:
        print("End of program")
```

○ Invalid value
End of function
End of program

○ Division by zero
End of function
End of program

○ End of function
Invalid index
End of program

○ End of function
Invalid type
End of program

You're being proctored!

Reset   Save

00:58:49

Finish Test

MCQ QUESTIONS

Programming

① ② ③
④ ⑤ ⑥
⑦ ⑧ ⑨
⑩ ⑪ ⑫
⑬ ⑭ ⑮
16 ⑰ ⑱
⑲ ⑳

Question 16

What is the output of the code given below?

```
def function(input_list):
    mid_pos=len(input_list)//2
    low=0
    high=len(input_list)-1
    while(input_list[mid_pos]<input_list[low]):
        low=low+1
    if (low < high):
        temp=input_list[low]
        input_list[low]=input_list[high]
        input_list[high]=temp
    return input_list

list1 = [39, 91, 77, 51, 33, 84]
sub_list1 = function(list1[:4])
print(sub_list1)
```

○ [51, 91, 77, 39]

○ [51, 77, 91, 39]

○ [77, 91, 33, 51]

You're being proctored!

00:58:48

Finish Test

MCQ QUESTIONS

Programming

1 2 3
4 5 6
7 8 9
10 11 12
13 14 15
16 17 18
19 20

```
    while(input_list[mid_pos]<input_list[low]):
        low=low+1
    if (low < high):
        temp=input_list[low]
        input_list[low]=input_list[high]
        input_list[high]=temp
    return input_list

list1 = [39, 91, 77, 51, 33, 84]
sub_list1 = function(list1[:4])
print(sub_list1)
```

○ [51, 91, 77, 39]

○ [51, 77, 91, 39]

○ [77, 91, 39, 51]

○ [51, 91, 77, 39, 33, 84]

Reset   Save

You're being proctored!

00:58:46

Finish Test

MCQ QUESTIONS

Programming

1 2 3
4 5 6
7 8 9
10 11 12
13 14 15
16 17 18
19 20

Question 17

From the below code snippet, identify how many reference variable(s) refer to the object created in Line 1 at the end of Line 2?

```
class Team:
    counter=0
    def __init__(self):
        self.no_of_players=11
        self.coach=None
cricket_team=Team()            #Line1
football_team=Team()
hockey_team=football_team
football_team=cricket_team
football_team=Team()
cricket_team=hockey_team       #Line2
```

Note: Line numbers are only for reference

○ 3

○ 2

○ 0

○ 1

You're being proctored!

00:58:39

Finish Test

MCQ QUESTIONS

Question 18

What is the output of the below Python code?

```python
class Employee:
    __counter=100

    def __init__(self,name):
        self.name=name
        Employee.__counter+=1
        self.id=Employee.__counter

    @staticmethod
    def get_counter():
        return Employee.__counter
employee1=Employee("Tina")
employee2=Employee("Chris")
employee3=Employee("Robb")
print(Employee.get_counter()-100)
```

- ○ 1
- ○ 3
- ○ 103
- ○ 0

You're being proctored!

00:58:36

Finish Test

MCQ QUESTIONS

Question 19

Consider a class 'DemoClassA' having two abstract methods 'method_one' and 'method_two' and a class 'DemoClassB' which is a child class of 'DemoClassA'.

Which of the following statements is CORRECT with regard to the above classes?

- ○ Objects of class 'DemoClassA' can be created but objects of 'DemoClassB' cannot be created
- ○ Objects of class 'DemoClassA' cannot be created but objects of 'DemoClassB' can be created only if both the methods 'method_one' and 'method_two' are defined
- ○ Objects of class 'DemoClassA' and class 'DemoClassB' cannot be created at all
- ○ Objects of class 'DemoClassA' cannot be created but objects of 'DemoClassB' can be created only if either method 'method_one' or method 'method_two' is defined

Reset   Save

You're being proctored!

00:58:34

Finish Test

← MCQ QUESTIONS

Programming

① ② ③
④ ⑤ ⑥
⑦ ⑧ ⑨
⑩ ⑪ ⑫
⑬ ⑭ ⑮
⑯ ⑰ ⑱
⑲ **20**

Question 20

Consider the below code snippet.
Identify the most efficient test data set for testing the below code using 'Logic Coverage' technique.

```
if previous_year_percentage>=75 and previous_year_percentage<=85:
    scholarship=5000
elif previous_year_percentage>85 and previous_year_percentage<=95:
    scholarship=8000
elif previous_year_percentage>95:
    scholarship=10000
else:
    scholarship=0
```

○ 79, 87, 91, 99

○ 78, 80, 92, 99

○ 74, 77, 90, 100

○ 74, 75, 76, 84, 85, 86, 94, 95, 96, 97

You're being proctored!

00:58:28

Finish Test

← MCQ QUESTIONS

Database

① ② ③
④ ⑤ ⑥
⑦ ⑧ ⑨
⑩

Question 1

Consider a table **order** with attributes orderid(primary key), customerid, orderdate, quantity, price and category.

Columns customerid, orderdate, quantity and price are non unique. The table has two explicit indexes as follows:

IDX1 – quantity

IDX2 – customerid, orderdate

Which of the following queries will not result in Table Scan?

[Choose TWO correct options]

☐ **WHERE LOWER**(category) = 'stationary' **AND** price > 400

☐ **WHERE** customerid <> 'C1001' **AND** orderdate = '30-MAR-2018'

☐ **WHERE** price < 650 **AND** orderid = 1001

☐ **WHERE** customerid = 'C1005' **AND** quantity > 10

You're being proctored!

Database

1 2 3
4 5 6
7 8 9
10

Question 2

Consider the table **employeedetail** given below:

Table : employeedetail

empid	empname	empsalary	bonus	projectdept
1	John	27000	400	Finance
2	Michael	20000	300	Telecom
3	John	40000	600	ENG
4	Mike	50000	700	ENG
5	Robert	25000	NULL	Telecom
6	Robert	20000	300	Telecom
7	Peter	30000	NULL	ENG
8	Carl	27000	NULL	Finance

Query :

SELECT projectdept , **ROUND**(**AVG**(empsalary)) AVGSAL , **SUM**(bonus)TOTALBONUS
FROM employeedetail
GROUP BY projectdept **HAVING AVG**(empsalary) > 20000 **AND SUM**(bonus) > 500;

When the above query is executed , which of the following will appear as part of output?

You're being proctored!

Database

1 2 3
4 5 6
7 8 9
10

GROUP BY projectdept **HAVING AVG**(empsalary) > 20000 **AND SUM**(bonus) > 500;

When the above query is executed , which of the following will appear as part of output?

○
PROJECTDEPT	AVGSAL	TOTALBONUS
Finance	40000	600

○
PROJECTDEPT	AVGSAL	TOTALBONUS
ENG	40000	1300
Finance	40000	600

○
PROJECTDEPT	AVGSAL	TOTALBONUS
ENG	40000	1300

○
PROJECTDEPT	AVGSAL	TOTALBONUS
Telecom	21667	600
Finance	40000	600
ENG	50000	700

You're being proctored!

00:58:14

Finish Test

← MCQ QUESTIONS

Database

1 2 **3**

4 5 6

7 8 9

10

Question 3

Consider the following query:

`SELECT SUBSTR(TO_DATE('01-02-2018','mm-dd-yyyy'),4,3)||'-'|| 2018 month FROM DUAL;`

What will be the output when the above query is executed?

○
MONTH
JAN-2018

○
MONTH
01-2018

○
MONTH
02-2018

○
MONTH
FEB-2018

You're being proctored!

00:58:11

Finish Test

← MCQ QUESTIONS

Database

1 2 3

4 5 6

7 8 9

10

Question 4

Consider the tables **customer, vehicle** and **booking** given below having the information of the vehicles booked by the customers by paying initial booking amount:

Table:customer

customerid	name
C101	Richard
C102	Jason
C103	Xavier
C104	Albert

Table:vehicle

vehicleid	vehiclemodel
V101	Vespa
V102	Activa
V103	Gusto
V104	Maestro

Table:booking

customerid	vehicleid	bookingid	bookingamount
C101	V104	B101	2000
C102	V102	B102	1500

You're being proctored!

00:58:05

Finish Test

MCQ QUESTIONS

Database

1 2 3
4 5 6
7 8 9
10

customerid	vehicleid	bookingid	bookingamount
C101	V104	B101	2000
C102	V102	B102	1500
C103	V102	B103	1000
C104	V101	B104	1400
C101	V101	B105	1000

Query:

```
SELECT name, vehiclemodel, bookingid, bookingamount
FROM  customer c INNER JOIN booking b
ON c.customerid = b.customerid AND name LIKE '%a%'
LEFT OUTER JOIN vehicle v ON b.vehicleid = v.vehicleid
WHERE bookingamount > 1300;
```

How many rows will be fetched when the above query is executed?

○ 5

○ 4

○ 2

○ 3

You're being proctored!

00:57:59

Finish Test

MCQ QUESTIONS

Database

1 2 3
4 5 6
7 8 9
10

Question 5

Consider the following relational schema:

mobile (mobileid, model, cost, batterylife)

mobileid is the candidate key and following are the functional dependencies:

mobileid -> model, cost

model -> batterylife

Which type of dependency exists in the above relation?

○ Partial dependency

○ Transitive dependency

○ Full functional dependency

○ Relative dependency

[Reset] [Save]

You're being proctored!

00:57:57

MCQ QUESTIONS

Database

1 2 3
4 5 6
7 8 9
10

Question 6

Consider the table **consultant** given below:

Table: consultant

id	name	gender	doj	dob	mobnumber
1001	Kristen	F	20-Jan-19	5-Dec-92	8789631235
1002	Michael	M	22-Feb-18	19-Mar-92	NULL
1003	Evan	F	12-Sep-19	21-Jul-93	NULL
1004	Robert	M	8-Apr-19	16-Aug-92	9876584912

Query:
UPDATE consultant **SET** mobnumber = 8967859400 **WHERE** id = 1003;
UPDATE consultant **SET** name = 'Rahim' **WHERE** id = 1002;
DELETE FROM consultant **WHERE** gender = 'F' **AND** dob **LIKE** '%92';
SELECT name, gender, mobnumber **FROM** consultant;

What will be the output when the above statements are executed sequentially?

You're being proctored!

00:57:55

MCQ QUESTIONS

Database

1 2 3
4 5 6
7 8 9
10

○
NAME	GENDER	MOBNUMBER
Rahim	M	NULL
Evan	F	8967859400
Robert	M	9876584912

○
NAME	GENDER	MOBNUMBER
Kristen	F	8789631235
Evan	F	8967859400

○
NAME	GENDER	MOBNUMBER
Kristen	F	8789631235
Rahim	M	NULL
Robert	M	9876584912

○
NAME	GENDER	MOBNUMBER
Robert	M	9876584912
Rahim	M	NULL

You're being proctored!

00:57:50

Finish Test

←   MCQ QUESTIONS

Database

1	2	3
4	5	6
7	8	9
10		

Question 7

Consider the table **account** given below:

Table: account

accountnum	customerid	balance	accttype	status
100001	1001	9999	Savings	Closed
100002	1002	2500	Current	Active
100003	1003	3600	Savings	Active
100004	1004	5800	Savings	Active

Choose the appropriate SQL query to fetch the account numbers of the customers who have an active account with a balance less than the average balance.

○ **SELECT** accountnum **FROM** account **WHERE** status = 'Active' **AND** balance **IN (SELECT AVG**(balance) **FROM** account);

○ **SELECT** accountnum **FROM** account **WHERE** status = 'Active' **AND** balance < (**SELECT AVG**(balance) **FROM** account **GROUP BY** accountnum,balance);

You're being proctored!

00:57:49

Finish Test

←   MCQ QUESTIONS

Database

1	2	3
4	5	6
7	8	9
10		

Choose the appropriate SQL query to fetch the account numbers of the customers who have an active account with a balance less than the average balance.

○ **SELECT** accountnum **FROM** account **WHERE** status = 'Active' **AND** balance **IN (SELECT AVG**(balance) **FROM** account);

○ **SELECT** accountnum **FROM** account **WHERE** status = 'Active' **AND** balance < (**SELECT AVG**(balance) **FROM** account **GROUP BY** accountnum,balance);

○ **SELECT** accountnum **FROM** account **WHERE** status = 'Active' **GROUP BY** accountnum **HAVING AVG**(balance) < (**SELECT AVG**(balance) **FROM** account **GROUP BY** accountnum);

○ **SELECT** accountnum **FROM** account **WHERE** status = 'Active' **AND** balance < (**SELECT AVG**(balance) **FROM** account);

Reset   Save

You're being proctored!

Database

1 2 3
4 5 6
7 **8** 9
10

Question 8

Consider the table **consultation** given below:

Table: consultation

consultationid	department	doctorid	patientid	consultationdate	fees
1001	PED	D901	P901	12-Feb-18	210
1002	ENT	D902	P902	20-Jan-18	110
1003	GYN	D903	P903	20-Feb-18	470
1004	ENT	D904	P901	11-Feb-18	250
1005	OPD	D905	P904	12-Jan-18	300
1006	GYN	D906	P905	12-Mar-18	640
1007	PED	D901	P902	19-Feb-18	270

Query:

SELECT consultationid, patientid **FROM** consultation **WHERE**
TO_CHAR(consultationdate, 'MON') = 'FEB' **AND** fees > 250
UNION ALL
SELECT consultationid, patientid **FROM** consultation
WHERE department = 'GYN' **AND** fees <= 640 **ORDER BY** 1 DESC;

You're being proctored!

TO_CHAR(consultationdate, 'MON') = 'FEB' **AND** fees > 250
UNION ALL
SELECT consultationid, patientid **FROM** consultation
WHERE department = 'GYN' **AND** fees <= 640 **ORDER BY** 1 DESC;

What will be the output when the above query is executed?

○
CONSULTATIONID	PATIENTID
1003	P903
1007	P902
1003	P903
1006	P905

○
CONSULTATIONID	PATIENTID
1007	P902
1006	P905
1003	P903

| CONSULTATIONID | PATIENTID |

You're being proctored!

Database

1	2	3
4	5	6
7	8	9

10

○

| 1006 | P905 |
| 1003 | P903 |

CONSULTATIONID	PATIENTID
1007	P902
1006	P905
1004	P901
1003	P903

○

CONSULTATIONID	PATIENTID
1007	P902
1006	P905
1003	P903
1003	P903

○

Reset   Save

Database

1	2	3
4	5	6
7	8	9

10

Question 9

Consider a MongoDB collection named **item** given below:

db.item.insert([{_id: 1, description: "Sugar", price: 60, discount: 10},

{_id: 2, description: "Vinegar", price: 110, discount: 15},

{_id: 3, description: "Tea", price: 200, discount: 20},

{_id: 4, description: "Biscuits", price: 50, discount: 20},

{_id: 5, description: "Coffee", price: 75, discount: 5}]);

Tom executed the following mongodb statements:

db.item.update({$or: [{description: "Sugar"}, {discount: 20}]}, {$set: {discount: 8}});

db.item.remove({discount: 15});

db.item.find();

Which of the following statements will be TRUE when the above statements are executed sequentially?

[Choose TWO correct options]

MCQ QUESTIONS

Database

(1) (2) (3)
(4) (5) (6)
(7) (8) **(9)**
(10)

Tom executed the following mongodb statements:

db.item.update({$or: [{description: "Sugar"}, {discount: 20}]}, {$set: {discount: 8}});

db.item.remove({discount: 15});

db.item.find();

Which of the following statements will be TRUE when the above statements are executed sequentially?

[Choose TWO correct options]

- ☐ Two items will have discount of 15
- ☐ The item collection will have four documents
- ☐ Two items will have price more than 100
- ☐ Two items will have discount of 20

Reset   Save

You're being proctored!

00:57:30

Finish Test

MCQ QUESTIONS

Database

(1) (2) (3)
(4) (5) (6)
(7) (8) (9)
(10)

Table: libraryregister

issueid	bookid	issuedate	returndate
10001	1005	15-Jan-18	20-Jan-18
10002	1011	12-Feb-18	20-Feb-18
10003	1006	5-May-19	17-May-19
10004	1020	12-Jan-19	20-Jan-19
10005	1001	25-Dec-18	10-Jan-19
10006	1001	12-Feb-18	20-May-18
10007	1001	12-Jan-19	20-Jan-19

Query:

SELECT bookname FROM libraryregister l1, book b WHERE l1.bookid = b.bookid AND EXISTS
(SELECT 1 FROM libraryregister l2 WHERE l1.issuedate = l2.issuedate AND l1.issueid <>
l2.issueid AND l1.returndate = l2.returndate);

What will be the output when the above query is executed?

BOOKNAME
A Brief History Of Time
Gulliver's travel

○

You're being proctored!

00:57:28

Finish Test

MCQ QUESTIONS

Question 10

Consider the tables **book** and **libraryregister** given below:

Table: book

bookid	bookname
1001	A Brief History Of Time
1005	Hamlet
1006	The Grand Design
1011	Gulliver's travel
1020	Cosmos: A Personal Voyage
1008	War and Peace

Table: libraryregister

issueid	bookid	issuedate	returndate
10001	1005	15-Jan-18	20-Jan-18
10002	1011	12-Feb-18	20-Feb-18
10003	1006	5-May-19	17-May-19
10004	1020	12-Jan-19	20-Jan-19
10005	1001	25-Dec-18	10-Jan-19
10006	1001	12-Feb-18	20-May-18
10007	1001	12-Jan-19	20-Jan-19

You're being proctored!

00:57:21

Finish Test

MCQ QUESTIONS

10006	1001	12-Feb-18	20-May-18
10007	1001	12-Jan-19	20-Jan-19

Query:

SELECT bookname **FROM** libraryregister l1, book b **WHERE** l1.bookid = b.bookid **AND EXISTS**
(**SELECT** 1 **FROM** libraryregister l2 **WHERE** l1.issuedate = l2.issuedate **AND** l1.issueid <>
l2.issueid **AND** l1.returndate = l2.returndate);

What will be the output when the above query is executed?

○
BOOKNAME
A Brief History Of Time
Gulliver's travel
Cosmos: A Personal Voyage

○
BOOKNAME
A Brief History Of Time
Cosmos: A Personal Voyage

You're being proctored!

Database

1 2 3
4 5 6
7 8 9
10

| BOOKNAME |
| A Brief History Of Time |
| Cosmos: A Personal Voyage |

○

| BOOKNAME |
| A Brief History Of Time |
| Gulliver's travel |

○

| BOOKNAME |
| A Brief History Of Time |
| A Brief History Of Time |
| Gulliver's travel |
| Cosmos: A Personal Voyage |

○

Reset   Save

You're being proctored!

00:57:11

Finish Test

Aptitude

1 2 3
4 5 6
7 8 9
10

Question 1

Anil borrowed a total of 4000 USD from 2 lenders with simple interest at the rate of 5% p.a. and 7% p.a. respectively.

If the total interest paid for 3 years was 696 USD, how much did he borrow from the 2nd lender (at 7% p.a.)

○ 2400

○ 2000

○ 1600

○ 1800

Reset   Save

You're being proctored!

00:57:09

MCQ QUESTIONS

←

Aptitude

1 2 3
4 5 6
7 8 9
10

Question 2

A lotion maker has to mix three perfume fragrances - Sage, Musk, White Lily with three moisturizers - Shea butter, Vitamin E and Flower seed Oil - and fill them in 3 boxes - White, Pink and Yellow.

Each perfume must be mixed with one of the lotions.

The mixture containing Sage must be filled in the white box.

Musk is mixed with Vitamin E, but this mixture cannot be filled in the Yellow box.

The mixture containing Shea Butter must be filled in the Yellow box.

The white box consists of which of the following?

○ Sage and Vitamin E

○ Sage and Shea Butter

○ Flower seed Oil

○ None of these

You're being proctored!

00:57:08

MCQ QUESTIONS

←

Aptitude

1 2 3
4 5 6
7 8 9
10

Question 3

10% of garments produced in a mill are found defective and 20% of the remaining are sold in the mill's factory outlet.

If the remaining 5040 garments are shipped to other retail stores, **then the number of garments that were defective was:**

○ 700

○ 720

○ 7000

○ 7200

Reset   Save

You're being proctored!

00:57:06

Finish Test

MCQ QUESTIONS

Aptitude

1 2 3
4 5 6
7 8 9
10

Question 4

Rohit Sharma's score in a T20 game is 4 times the average of his scores in the previous 5 games.

What has been the percentage increase in his average after the 6th game?

○ 33.33%
○ 37.5%
○ 50%
○ 0.55%

Reset   Save

You're being proctored!

00:57:05

Finish Test

MCQ QUESTIONS

Aptitude

1 2 3
4 5 6
7 8 9
10

Question 5

A shop stores x kg of rice. The first customer buys half this amount plus half a kg of rice. The second customer buys half the remaining amount plus half a kg of rice. Then the third customer also buys half the remaining amount plus half a kg of rice. Thereafter, no rice is left in the shop. Which of the following best describes the value of x?

○ 2<=x<=6
○ 5<=x<=8
○ 9<=x<=11
○ 11<=x<=15

Reset   Save

You're being proctored!

00:57:03

Finish Test

MCQ QUESTIONS

Question 6

The average score of Rahul Dravid in a certain number of innings is 43. He then played another 8 innings in which he scored 96,1,22,67,39,48,69, 2. What is the new average of Dravid after those 8 innings

- ◯ Cannot be determined without the total number of innings
- ◯ New average is higher
- ◯ New average is lower
- ◯ New average is same

Reset **Save**

Aptitude

1 2 3
4 5 **6**
7 8 9
10

You're being proctored!

00:57:02

Finish Test

MCQ QUESTIONS

Question 7

The questions are based on the following data.

Eight persons A,B,C, D, E, F, G and H are sitting around a table.

B is opposite to D, who is next to E.

A is next to B but not opposite E.

From E, A is nearer in clockwise direction.

IF C is to the left of F, but not next to D, **then who among the following is opposite to F?**

- ◯ E
- ◯ A
- ◯ G
- ◯ F

Reset **Save**

Aptitude

1 2 3
4 5 6
7 8 9
10

You're being proctored!

00:57:01

Finish Test

MCQ QUESTIONS

Aptitude

① ② ③
④ ⑤ ⑥
⑦ **8** ⑨
⑩

Question 8

20 men were employed to do some work in a certain time. But when 1/3rd of the scheduled time was over, it was found that only 1/4th of the total work was completed. How many more men should now be employed to complete the work in 3/4ths of the originally scheduled time?

○ 28

○ 20

○ 48

○ 40

Reset   Save

You're being proctored!

00:56:59

Finish Test

MCQ QUESTIONS

Aptitude

① ② ③
④ ⑤ ⑥
⑦ ⑧ **9**
⑩

Question 9

The ink in a pen will last for 12 pages where each page has 32 lines.

How many pages will half the ink last if there are 48 lines per page and there are now 20% less letters per line than in earlier case?

○ 15

○ 5

○ 7

○ Data Insufficient

Reset   Save

You're being proctored!

00:56:58

Finish Test

← MCQ QUESTIONS

Aptitude

1 2 3

4 5 6

7 8 9

10

Question 10

My age 3 years hence multiplied by 3 and from that subtracted 3 times my age 3 years ago will give you my exact age; how old am I?

○ 18

○ 15

○ 21

○ None of the above

Reset   Save

You're being proctored!