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PROGRAMM : SE section A

Subject : OOPS

Question 1

Answer:

Class

Collection of objects is called class. It is a logical entity.

A class can also be defined as a blueprint from which you can create an individual object. Class doesn't consume any space.

Object

Any entity that has state and behavior is known as an object. For example, a chair, pen, table, keyboard, bike, etc. It can be physical or logical.

An Object can be defined as an instance of a class. An object contains an address and takes up some space in memory. Objects can communicate without knowing the details of each other's data or code. The only necessary thing is the type of message accepted and the type of response returned by the objects.

Example: A dog is an object because it has states like color, name, breed, etc. as well as behaviors like wagging the tail, barking, eating, etc.

Question 2

Answer:

```java
1  import java.util.*;
2
3  public class multi {
4
5      public static void main(String[] args) {
6          int list;
7
8          Scanner py=new Scanner(System.in);
9
10         System.out.println("Enter your value");
11         list=py.nextInt();
12
13         chart tab=new chart(list);  //constructor
14
15         tab.tableformula();    //Method
16
17     }
18 }
19
20 class chart
21 {
22     int table;
23
24     chart(int z) //constructor used parameter
25     {
26         table=z;
27     }
28
29     void tableformula()
30
31     {
32         int r=0;
33
34         for(int i=1; i<=10;i++)
35         {
36             r=table*i;
37             System.out.println(table+"x"+i+"="+table*i);
38         }
39     }
```

<terminated> multi [Java Application] C:\Program Files\Java\jdk-13.0.2\bin\javaw.exe (Apr 23, 2020, 3:00:54 AM)
```
Enter your value
2
2x1=2
2x2=4
2x3=6
2x4=8
2x5=10
2x6=12
2x7=14
2x8=16
2x9=18
2x10=20
```

Question 3

Answer:

```java
1  public class vehicle {
2
3⊖     public static void main(String[] args) {
4          car toyota=new car();
5          car honda=new car();
6
7          toyota.car= "Grande";
8          toyota.tyre=4;
9          toyota.doors=4;
10         toyota.engine=1.8;
11         toyota.fuelcapcity=44.7;
12         toyota.fuelconsumption=2.3;
13
14         honda.car= "civic";
15         honda.tyre=4;
16         honda.doors=4;
17         honda.engine=1.8;
18         honda.fuelcapcity=38.7;
19         honda.fuelconsumption=1.9;
20
21         System.out.println("Name = "+toyota.car);
22         System.out.println("Tyre = "+toyota.tyre);
23         System.out.println("door = "+toyota.doors);
24         System.out.println("engine = "+toyota.engine);
25         System.out.println("fuelcapcity = "+toyota.fuelconsumption);
26         System.out.println("fuelconsumption = "+toyota.fuelcapcity);
27
28         System.out.println("Name = "+honda.car);
29         System.out.println("Tyre = "+honda.tyre);
30         System.out.println("door = "+honda.doors);
31         System.out.println("engine = "+honda.engine);
32         System.out.println("fuelcapcity = "+honda.fuelconsumption);
33         System.out.println("fuelconsumption = "+honda.fuelcapcity);
34
35         System.out.println("performance of toyota");
36         toyota.performance();
37         System.out.println("performance of honda");
38         honda.performance();
39
```

```java
40
41          }
42
43  }
44
45  class car
46  {
47      String car;
48      int tyre;
49      int doors;
50      double engine;
51      double fuelcapcity;
52      double fuelconsumption;
53
54
55      void performance()
56      {
57          double z;
58          z=fuelcapcity*fuelconsumption;
59          System.out.println("performance = "+z);
60
61
62      }
63
64  }
65
```

```
Name = Grande
Tyre = 4
door = 4
engine = 1.8
fuelcapcity = 2.3
fuelconsumption = 44.7
Name = civic
Tyre = 4
door = 4
engine = 1.8
fuelcapcity = 1.9
fuelconsumption = 38.7
performance of toyota
performance = 102.81
performance of honda
performance = 73.53
```