

## **MATHEMATICS 23-04-2020**

Do Ex 5E (q.no 1,3,5 ,7,9,13,16 18)

Ex 5D 1( odd parts)

2(i, ii),3(i, ii, iii)

4, 6, 7, 9, 11

## **BIOLOGY 24-04-2020**

**Class: 10 D**

1. Do all progress check and exercises of chapter 16 in book with pencil.
2. Draw fig.16.8 in notebook.
3. Do question B-5, C-2, 3 in notebook.

## **ECONOMICS APPLICATION 24-04-2020**

Q1- Explain any four exceptions to the law of demand.

Q2- Differentiate between:

- a) Expansion of demand and increase in demand
- b) Contraction of demand and decrease in demand
- c) Movement along the demand curve and shift in demand curve

Q3- Distinguish between expansion of demand and contraction of demand using diagram.

Q4- Why does the demand curve slope downwards? Explain. (Any four)

Q5- Differentiate between increase in demand and decrease in demand and show it diagrammatically.

Q6- Explain what will happen to the demand for a commodity if:

- a) the price of its substitution goods falls
- b) the price of its complements falls
- c) income of the buyer falls
- d) a favourable change in the taste of the buyers of the commodity.

## COMPUTER APPLICATION 24-04-2020

### CONSTRUCTORS

#### Q1. What is a constructor? Why do we need it?

Ans. A constructor is a member method with the same name as that of its class and it is used to initialize the object of that class type with legal initial value.

#### Q2. How are constructor invoked?

Ans. Constructors are invoked by the compiler through new keyword.

Syntax : <class name> <object name>= new <contractor name()>;

Ex. Student    obj    =    new    Student ();  
      ↓            ↓                    ↓            ↓  
      Class        object            keyword    constructor

#### Q3. Differentiate between

Constructor	Methods
<ol style="list-style-type: none"><li>1. Create an instance of a class</li><li>2. Has no return type not even void</li><li>3. Same name as class name</li><li>4. Called at the time of object creation.</li></ol>	<ol style="list-style-type: none"><li>1. Group of java statements</li><li>2. Has void or valid return type</li><li>3. Any name except the class name</li><li>4. Called when the specific method call is encountered. Methods calls are to be specified by the programmer.</li></ol>

#### Q4. What are the types of constructors?

Ans. Constructors are of two types:-

1. Default Constructor:- A constructor that accepts no parameters and is automatically created by the compiler in the absence of explicit constructor, is called default constructor or non-parameterized constructors.
2. Parameterized constructor:- These constructors are required to pass parameters on creation of objects.

#### Q5. What is constructor overloading?

Ans. Constructor overloading is a way of having more than one constructor inside one class. The number of parameters can be same but have different data types.

**Example :- (for types of constructors and constructor overloading)**

```

class Construct
{ int a, b, c;
Construct()      //non parameterized constructor
{
a=0;
b=0;
c=0;
}
Construct(int x, int y)    // parameterized constructor
{
a=x;
b=y;
c=0;
}
Construct(int x, int y, int z)
{
a=x;
b=y;
c=z;
}
void display()
{
System.out.println("a="+a + "b="+b + "c="+c);
}
public static void main(String args[])
{
Construct ob1= new Construct();
Construct ob2= new Construct(4,5);
Construct ob3= new Construct(2,4,6);
ob1.display();
ob2.display();
ob3.display();
}
}

```

#### **Q8. What is the use of 'this' keyword?**

Ans. Keyword **'this'** is a reference variable in **Java** that refers to the current object. ... It can be used to refer instance variable of current class. It can be used to invoke or initiate current class constructor. It can be passed as an argument in the method call.

It can also differentiate between instance variable and local variable. The exact purpose of '**this**' is to remove ambiguity between local and instance variable.

**Example:** To learn the use "this" keyword

```
class Account{
int a;
int b;

public void setData(int a ,int b){
a = a;
b = b;
}
public void showData(){
System.out.println("Value of A =" +a);
System.out.println("Value of B =" +b);
}
public static void main(String args[]){
Account obj = new Account();
obj.setData(2,3);
obj.showData();
}
}
```

After compiling & running the above code.

We get the value of a & b as zero whereas we should get it as 2 & 3 respectively. As the instance and local variable are same so it has created a problem.

To correct this error we can use "**this**" keyword in setData() function as follows

```
this.a =a;
this.b =b;
```

Now again Compile and Run the code. This time, values of a & b are set to 2 & 3 respectively.

## PRACTICE QUESTION

**Q4. Define a class BookFair with the following description:**

**Instance variable/data members:**

String Bname : to store the book name

String Author : to store author name

double price : to store bill amount

**Member methods:**

BookFair() : default constructor to initialize the data members

void input() : to input and store the name and price of the book.

void compute() : to calculate the price after discount.

Discount is calculated based on the following criteria.

**Price**

**Discount**

Less than or equal to Rs.1000	2% of price
More than 1000 and less than equal to Rs 5000	5% of price
More than Rs 5000	10% of price

void display() : to display the book name, author name and price of book  
after discount.

**Write main method to create an object and call the above member methods.**

**NOTE:- Do the given work in your notebook and show me by tomorrow i.e. 25-04-2020. After that only I will send you the explanation of the above. No need to do practice question right now, you can do it after my expatiation.**