

End Sem Examination

①

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Section - B

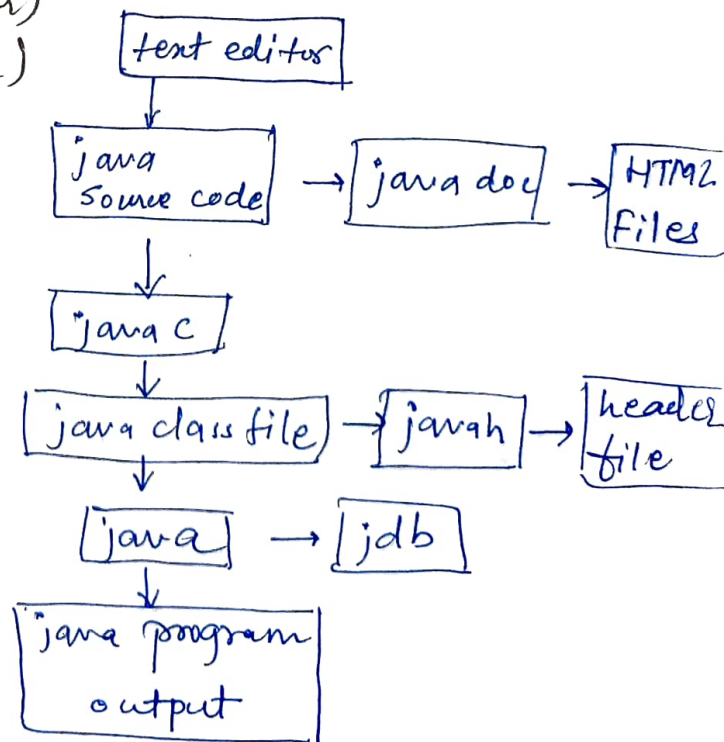
Answer No-2

Security: Security is an important issue for all programming language which is used on internet. Threat of virus and abuse of resource are every where. Java system not only verify all memory access but also ensure that no virus are communicated with an applet. The absence of pointers in java ensure that program can't get access to memory location without authentication.

JDK - Java development kit comes with collection of tools that helps in developing and running of program.

It includes -

1. applet viewer (for viewing applet)
2. javac (Java Compiler)
3. java (Java interpreter)
4. javap (disassembler)
5. javah (for header)
6. javadoc (for html)
7. jdb (debugger).



process of building and running java app. pro.

Ans NO - 3

Comparison

while

switch

from

```

1 while(condition){
  statements;
  // body of loop
}

```

1. Statement will be executed is decided by user.

choices

2. in while loop the controlling condition appears at the start of loop.

2. Switch statement use single expression for multiple choices

iteration

3. The iteration do not occur if the condition at 1st iteration appear false.

3. Switch statement checks only for equality

secondname

4. Entry controlled loop also known.

4. Switch statement evaluates only char or int values

efficient.

5. semi colon not used at end,

5. it is easy to edit switch case as, they are recognized easily

Ans NO - 5

Scanner is a class in java.util package used for obtaining the input of primitive types like int, doubles, etc. and string. It is easiest way to read input in java prog. It is not efficient if you want an input method for scenario, where time, is constraint.

```

public class Main {
  public static void main (String[] args) {

import java.util.Scanner;
public class Main {
  public static void main (String[] args) {

```

```

Scanner sc = new Scanner(System.in);
System.out.println("Enter three number to add");
int a = sc.nextInt();
int b = sc.nextInt();
int c = sc.nextInt();

int d = a + b + c;
System.out.println("Sum is " + d);
}

```

{
 output: Enter three number to add
 1
 2
 3
 Sum is 6

Ans NO - 7

1. This construct is predefined variable in JVM
2. This can be used, to access hidden attribute of class within the constructor or within the method such as `this.x1` and so on.

To call a constructor in some other constructor of same class, such as `this(p1)`, `this(p1, p2)`.

```

class A {
    int x1 = 10;
    int x2 = 20;
    int x3 = 30;
    A() {
        // default constructor.
    }
}

```

```

A(int x1) {
    this.x1 = x1;
}
A(int x1, int x2, int x3) {
    this(x1, x2);
    this.x3 = x3;
}
A(int x1, int x2) {
    this(x1);
    this.x2 = x2;
}
void display() {
    System.out.println(x1);
    System.out.println(x2);
    System.out.println(x3);
}
}
}
public class B {
    public static void main(String[] arg) {
        A ob1 = new A();
        ob1.display();
        A ob2 = new A(30);
        ob2.display();
        A ob3 = new A(40, 50);
        ob3.display();
        A ob4 = new A(60, 70, 80);
        ob4.display();
    }
}

```

output: 10 30 40 60 Call are in vertical
 20 20 50 70
 30 30 30 80

Method overriding

1. method which have same name but in two different class.
2. when object of subclass is created and override method is called, then the method which is implemented in subclass is called and executed.

```
class vehicle {  
    void horn () {  
        System.out.println ("pep peep");  
    }  
}  
  
class Bike extends vehicle {  
    void horn () {  
        System.out.println ("Bike beep");  
    }  
}  
  
class Scooter extends vehicle {  
    void horn () {  
        System.out.println ("beep boop, goo...");  
    }  
}  
  
public class Main {  
    public static void main (String [] arg) {  
        vehicle v = new vehicle();  
        Bike b = new Bike ();  
        Scooter s = new Scooter ();  
    }  
}
```

```

v. horn();
b. horn();
s. horn();

```

```

}

```

```

}

```

output: pep peep
 Bike beep
 beep boop grr....

Ans No - 10

1. interface is basically a kind of class. it contain only define only abstract methods and final fields. i.e. no code implementation in these method and data field it can also contain constants. we have to implement in class to define code for implementation.
2. an interface is implicitly abstract.
3. each method is also implicitly abstract.
4. and methods are implicitly public.
5. a class can inherit from just one superclass but implement multiple interface.

```

interface animal {
    public void eat();
    public void sound();
}

```

```

class Dog implement animal {
    public void eat() {
        System.out.println("om nom om");
    }
}

```

```

        sound
public void eat() {
    System.out.println("Bark");
}
}

public class Main {
    public static void main (String[] args) {
        dog d1 = new dog();
        d1.eat();
        d1.sound();
    }
}

```

output: om nom om
Bark

Ans No - 13

multithreading — ① it is a program concept in which a program or a process is divided into two or more subprogram or thread that are executed at the same time in parallel.

② it support execution of multiple part of program simultaneously. A thread is small unit in multithreading. Helps in developing efficient programs.

```

class X implements Runnable {
    public void run() {
        for (int i = 1; i <= 10; i++) {

```

```

        System.out.println ("\t ThreadX" + i);
    }
    System.out.println ("End of thread");
}
}
class RunnableTest {
    public static void main (String[] args) {
        Runnable r = new X();
        Thread threadX = new Thread (r);
        threadX.start();
        System.out.println ("End of main thread");
    }
}

```

output: End of main thread
 Thread X : 1
 Thread X : 2
 Thread X : 3
 Thread X : 4
 Thread X : 5
 Thread X : 6
 Thread X : 7
 Thread X : 8
 Thread X : 9
 Thread X : 10
 End of Thread X

flow layout Manager: —

flow layout manager is a default layout manager it work like how text is arranged in a text editor. we can assign the text a particular direction and text is alligned based on direction

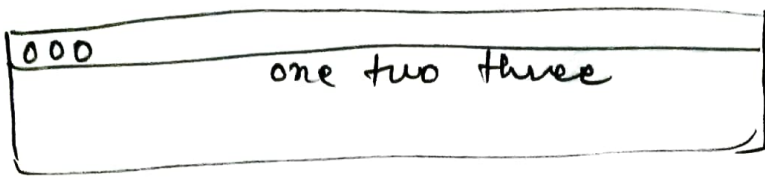
eg. —

```
import java.awt.Frame;
import java.awt.Label;
import java.awt.FlowLayout;
public class FlowLayoutDemo {
    public FlowLayoutDemo() {
        Frame frame = new Frame();
        Label label1 = new Label("one");
        Label label2 = new Label("two");
        Label label3 = new Label("three");

        frame.add(label1);
        frame.add(label2);
        frame.add(label3);

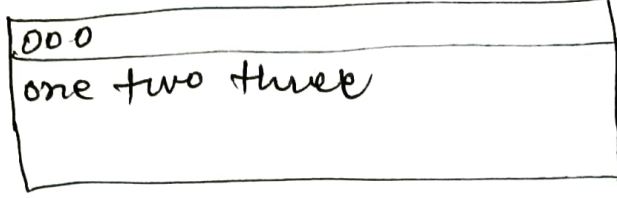
        frame.setLayout(new FlowLayout(FlowLayout
        .CENTER));

        frame.setSize(400, 100);
        frame.setVisible(true);
    }
    public static void main(String[] arg) {
        new FlowLayoutDemo();
    }
}
```



to modify align use

```
frame.setLayout(new FlowLayout(FlowLayout.LEFT));
```



Answer NO-16

Swing is also a GUI toolkit that facilitates the creation of highly interactive GUI application, However, swing packages has much more flexibility and robustness when it comes to implementing graphical compo. swing will always generate similar type of output irrespective of underlying platform.

Some key swing classes are

- JApplet : an extension for applet class
- JFrame : extension for java.awt.frame class.
- JButton : help to realize push button.

Components.

components are children of JComponent class. some components are,

1. JSlider
2. JTable
3. JViewport
4. JToolTip
5. JList

⊕ There are total 45 components + containers

1. Synchronization -

Thread use their own data and method provided inside their `run()` method, when we try to use methods outside themselves. they compete for same resource. one thread may try to read a record from a file while another is still writing the same file. To overcome this problem java enable us to use a technique known as Synchronization keyword - synchronized

2. Autoboxing: - converting a primitive value into an object of corresponding wrapper class is called autoboxing. For ex. convert int to Integer class.

- applies →
- ① passed as param. to obj method.
 2. assigned to a variable of correspond wrapper class.

Ans No - 1

- (i) (c)
- (ii) (c)
- (iii) (b) method declaration
- (iv) (b) `paint()`
- (v) (c)

Ans No - 4

character refer to a single letter, number, space, punctuation mark or a symbol that represent using a comp. while string refers to set of character

```
eg. char a = 'c';
    String s = "character";
```

Ans No - 9

Access modifiers help to determine the visibility control of method and function over other classes of same package.

access modifiers

1. public access. it is visible to entire class and also visible to outside of class.

```
eg. public int number;
    public void sum() { ... }
```

2. private : these are only accessible in same class

3. protected. its access is available to the same packages subclass members.

(13)
④ default: in public access they are visible in other package but default allow them to give access.

Ans No-14

an applet is any small application that perform one specific task that run within the scope of dedicated widget engine on a larger program often as plugin