

NAME OF THE FACULTY: DEEPAK KUMAR PARIDA

SUBJECT: OBJECT ORIENTED PROGRAMMING LANGUAGE USING JAVA

SEMESTER: 3rd

BRANCH: CSE

Module-1

Multiple Choice Questions.

- 1) **Java Programming was designed by _____.**
A. Microsoft
B. Sun Microsystems
C. Amazon Inc
D. Mozilla Corporation
- 2) **Earlier name of Java Programming language was -**
A. Netbean
B. OAK
C. D
D. Eclipse
- 3) **Which of the following personality is called as father of Java Programming language -**
A. Larry Page
B. None of these
C. Bjarne Stroustrup
D. James Gosling
- 4) **Why OAK was renamed to Java?**
A. **because there was another language called Oak**
B. None of these
C. Because the language was unsuccessful, so they created another version and changed its name to java.
D. because the name was not relevant to the language they created
- 5) **Java Source Code is compiled into _____.**
A. Obj
B. Exe
C. Source Code
D. Bytecode
- 6) **Which of the tool is used to compile java code?**
A. java
B. javac
C. javadoc
D. jar
- 7) **Which of the following tool used to execute java code?**
A. javadoc
B. rmic
C. java
D. javac
- 8) **Which of the following is used to interpret and execute Java Applet Classes hosted by HTML?**
A. **appletviewer**
B. appletshow
C. appletscreen

- D. appletwatcher
- 9) **HTML based Java Documentary help can be accessed using _____.**
- A. javamanual
 - B. javahelp
 - C. javadoc**
 - D. none of these
- 10) **JVM is a _____.**
- A. Compiler
 - B. Interpreter**
 - C. Debugger
 - D. Assembler
- 11) **Bytecode is given as input to _____.**
- A. JVM**
 - B. JRE
 - C. Assembler
 - D. Linker
- 12) **JDK in Java stands for _____.**
- A. Java Debugging Kit
 - B. Java Decompilation Kit
 - C. Java Development Kit**
 - D. None of these
- 13) **Java Programming is considered as a successor of following programming language!**
- A. C
 - B. BASIC
 - C. PHP
 - D. C++**
- 14) **Which of the following is used to identify the Java Programming Language?**
- A. Window
 - B. Cup of Coffee**
 - C. Map of Place
 - D. Shining Sun
- 15) **After Installing JDK 7.0 on default location, Guess the name of folder created at this location C:\Program Files\Java_____?**
- A. jdk1.7.0.
 - B. jdk1.7.1.
 - C. jdk1.7.2.
 - D. jdk1.6.0.
- 16) **Which of the following is smallest integer data type?**
- A. int
 - B. byte
 - C. long
 - D. short
- 17) **Which of the following is not a primitive data type?**
- A. enum
 - B. short
 - C. int
 - D. byte

- 18) **Integer Data type does not include following primitive data type _____.**
- A. short
 - B. long
 - C. byte
 - D. double
- 19) **Which of the following data types comes under floating data types?**
- A. float
 - B. double
 - C. byte
 - D. long
- 20) **Character data type cannot store following value.**
- A. Special Character
 - B. Letter
 - C. Digit
 - D. String
- 21) **What is Literal in Java Programming?**
- A. special type of class
 - B. source code representation of a fixed value
 - C. special type of data type
 - D. None of these
- 22) **boolean result = true;**
Which type of literal is assigned to the variable "result"?
- A. string
 - B. char
 - C. boolean
 - D. bool
- 23) **Which type of literal is written in pair of single quote?**
- A. Integer
 - B. Character
 - C. Float
 - D. Boolean
- 24) **An integer literal is of type long if and only if it has suffix - _____ in Java Programming.**
- A. L
 - B. D
 - C. F
 - D. O
- 25) **What is the stored in the object obj in following lines of Java code?**
box obj;
- A. Memory address of allocated memory of object
 - B. NULL
 - C. Any arbitrary pointer
 - D. Garbage
- 26) **Which of the following is a valid declaration of an object of class Box?**
- A. **Box obj = new Box();**
 - B. Box obj = new Box;
 - C. obj = new Box();
 - D. new Box obj;

- 27) **Which of these operators is used to allocate memory for an object?**
- A. malloc
 - B. alloc
 - C. new**
 - D. give
- 28) **Which of these statements is incorrect?**
- A. Every class must contain a main() method**
 - B. Applets do not require a main() method at all
 - C. There can be only one main() method in a program
 - D. main() method must be made public
- 29) **Which of these operators is used to allocate memory to array variable in Java?**
- A. malloc
 - B. alloc
 - C. new**
 - D. new malloc
- 30) **Which of these is an incorrect array declaration?**
- A. `int arr[] = new int[5]`
 - B. `int [] arr = new int[5]`
 - C. `int arr[] = new int[5]`
 - D. `int arr[] = int [5] new`**
- 31) What will be the output of the following Java code?
- ```
class multidimention_array
{
 public static void main(String args[])
 {
 int arr[][] = new int[3][];
 arr[0] = new int[1];
 arr[1] = new int[2];
 arr[2] = new int[3];
 int sum = 0;
 for (int i = 0; i < 3; ++i)
 for (int j = 0; j < i + 1; ++j)
 arr[i][j] = j + 1;
 for (int i = 0; i < 3; ++i)
 for (int j = 0; j < i + 1; ++j)
 sum += arr[i][j];
 System.out.println (sum);
 }
}
```
- A. 11
  - B. 10**
  - C. 13
  - D. 14
- 32) **Which of these is long data type literal?**
- A. 0x99ffL**
  - B. ABCDEFG
  - C. 0x99ffa

D. 99671246

33) **How is Date stored in database?**

- A. **java.sql.Date**
- B. java.util.Date
- C. java.sql.DateTimes
- D. java.util.DateTimes

34) **What will be the output of the following Java code?**

```
class Output
{
 public static void main(String args[])
 {
 boolean a = true;
 boolean b = false;
 boolean c = a ^ b;
 System.out.println(!c);
 }
}
```

- A. 0
- B. 1
- C. **false**
- D. true

35) **Which of these have highest precedence?**

- A. ()
- B. ++
- C. \*
- D. >>

36) **What will be the output of the following Java code?**

```
class operators
{
 public static void main(String args[])
 {
 int var1 = 5;
 int var2 = 6;
 int var3;
 var3 = ++ var2 * var1 / var2 + var2;
 System.out.print(var3);
 }
}
```

- A. 10
- B. 11
- C. **12**
- D. 56

37) **Which of this statement is incorrect?**

- A. switch statement is more efficient than a set of nested ifs
- B. **two case constants in the same switch can have identical values**
- C. switch statement can only test for equality, whereas if statement can evaluate any type of boolean expression
- D. it is possible to create a nested switch statements

- 38) **What is true about a break?**  
A. Break stops the execution of entire program  
**B. Break halts the execution and forces the control out of the loop**  
C. Break forces the control out of the loop and starts the execution of next iteration  
D. Break halts the execution of the loop for certain time frame
- 39) **What is the valid data type for variable "a" to print "Hello World"?**  
**switch (a)**  
{  
    **System.out.println ("Hello World");**  
}
- A. int and float  
B. byte and short  
C. char and long  
**D. byte and char**
- 40) **Which of the following is not a valid jump statement in java?**  
A. break  
**B. goto**  
C. continue  
D. return
- 41) **From where break statement causes an exit?**  
A. Only from innermost loop  
B. Terminates a program  
C. Only from innermost switch  
**D. From innermost loops or switches**
- 42) **Which of the following is not OOPS concept in Java?**  
A. Inheritance  
B. Encapsulation  
C. Polymorphism  
**D. Compilation**
- 43) **Which of the following is a type of polymorphism in Java?**  
**A. Compile time polymorphism**  
B. Execution time polymorphism  
C. Multiple polymorphism  
D. Multilevel polymorphism
- 44) **When does method overloading is determined?**  
A. At run time  
**B. At compile time**  
C. At coding time  
D. At execution time
- 45) **Which concept of Java is a way of converting real world objects in terms of class?**  
A. Polymorphism  
B. Encapsulation  
**C. Abstraction**  
D. Inheritance
- 46) **What is it called if an object has its own lifecycle and there is no owner?**  
A. Aggregation  
B. Composition

- C. Encapsulation  
**D. Association**
- 47) **What is it called where child object gets killed if parent object is killed?**  
A. Aggregation  
**B. Composition**  
C. Encapsulation  
D. Association
- 48) **Which statement is true about java?**  
**A. Platform independent programming language**  
B. Platform dependent programming language  
C. Code dependent programming language  
D. Sequence dependent programming language
- 49) **What is the extension of java code files?**  
A. .class  
**B. .java**  
C. .txt  
D. .js
- 50) **What is the extension of compiled java classes?**  
**A. .class**  
B. .java  
C. .txt  
D. .js
- 51) **What is use of interpreter?**  
A. They convert bytecode to machine language code  
**B. They read high level code and execute them**  
C. They are intermediated between JIT and JVM  
D. It is a synonym for JIT

### Module-2

- 1) **What would be the behaviour if this () and super () used in a method?**  
A. Runtime error  
B. Throws exception  
**C. compile time error**  
D. Runs successfully
- 2) **What is false about constructor?**  
A. Constructors cannot be synchronized in Java  
B. Java does not provide default copy constructor  
**C. Constructor can have a return type**  
D. "this" and "super" can be used in a constructor
- 3) **Abstract class cannot have a constructor.**  
A. True  
**B. False**
- 4) **What is not the use of "this" keyword in Java?**  
A. Passing itself to another method  
B. Calling another constructor in constructor chaining  
C. Referring to the instance variable when local variable has the same name  
**D. Passing itself to method of the same class**

- 5) **What would be behaviour if the constructor has a return type?**  
A. **Compilation error**  
B. Runtime error  
C. Compilation and runs successfully  
D. Only String return type is allowed
- 6) **What is the process of defining two or more methods within same class that have same name but different parameters declaration?**  
A. **method overloading**  
B. method overriding  
C. method hiding  
D. none of the mentioned
- 7) **What is the process of defining a method in terms of itself, that is a method that calls itself?**  
A. Polymorphism  
B. Abstraction  
C. Encapsulation  
D. **Recursion**
- 8) **Which of these is returned by “greater than”, “less than” and “equal to” operators?**  
A. Integers  
B. Floating – point numbers  
C. **Boolean**  
D. None of the mentioned
- 9) **What will be the output of the following Java code?**  
`class Relational_operator  
{  
 public static void main(String args[])  
 {  
 int var1 = 5;  
 int var2 = 6;  
 System.out.print(var1 > var2);  
 }  
}`  
A. 1  
B. 0  
C. true  
D. **false**
- 10) **Which right shift operator preserves the sign of the value?**  
A. <<  
B. >>  
C. <<=  
D. >>=
- 11) **What will be the output of the following Java program?**  
`class bitwise_operator  
{  
 public static void main(String args[])  
 {  
 int a = 3;  
 int b = 6;`

```
int c = a | b;
int d = a & b;
System.out.println(c + " " + d);
}
}
```

- A. 7 2
- B. 7 7
- C. 7 5
- D. 5 2

12) Which of these classes is superclass of every class in Java?

- A. String class
- B. **Object class**
- C. Abstract class
- D. ArrayList class

13) Which of these keywords can be used to prevent inheritance of a class?

- A. super
- B. constant
- C. class
- D. **final**

14) Which of these keywords cannot be used for a class which has been declared final?

- A. **abstract**
- B. extends
- C. abstract and extends
- D. none of the mentioned

15) What will be the output of the following Java code?

```
class Output
{
 public static void main(String args[])
 {
 Object obj = new Object();
 System.out.print(obj.getClass());
 }
}
```

- A. Object
- B. class Object
- C. **class java.lang.Object**
- D. Compilation Error

16) Which of this keyword must be used to inherit a class?

- A. super
- B. this
- C. extend
- D. **extends**

17) A class member declared protected becomes a member of subclass of which type?

- A. public member
- B. **private member**
- C. protected member
- D. static member

- 18) All classes in Java are inherited from which class?  
A. java.lang.class  
B. java.class.inherited  
C. java.class.object  
D. **java.lang.Object**
- 19) In order to restrict a variable of a class from inheriting to subclass, how variable should be declared?  
A. protected  
B. **private**  
C. public  
D. static
- 20) If super class and subclass have same variable name, which keyword should be used to use super class?  
A. **super**  
B. this  
C. upper  
D. classname
- 21) Static members are not inherited to subclass.  
A. True  
B. **False**
- 22) Which of the following is used for implementing inheritance through an interface?  
A. inherited  
B. using  
C. extends  
D. **implements**
- 23) Which of these operators can be used to concatenate two or more String objects?  
A. +  
B. +=  
C. &  
D. ||
- 24) Which of this method of class String is used to obtain a length of String object?  
A. get()  
B. Sizeof()  
C. lengthof()  
D. **length()**
- 25) Which of this method of class String is used to extract a single character from a String object?  
A. CHARAT()  
B. chatat()  
C. **charAt()**  
D. ChatAt()
- 26) Which of these is a process of writing the state of an object to a byte stream?  
A. **Serialization**  
B. Externalization  
C. File Filtering  
D. All of the mentioned
- 27) Which of this process occur automatically by the java runtime system?  
A. **Serialization**  
B. Garbage collection  
C. File Filtering

- D. All of the mentioned
- 28) Which of this interface extends DataOutput interface?
- A. Serializable
  - B. Externalization
  - C. **ObjectOutput**
  - D. ObjectInput
- 29) Which of these is a method of ObjectOutput interface used to finalize the output state so that any buffers are cleared?
- A. clear()
  - B. **flush()**
  - C. fflush()
  - D. close()
- 30) Which of these is method of ObjectOutput interface used to write the object to input or output stream as required?
- A. write()
  - B. Write()
  - C. StreamWrite()
  - D. **writeObject()**
- 31) What will be the output of the following Java program?
- ```
import java.io.*;
class serialization
{
    public static void main(String[] args)
    {
        try
        {
            Myclass object1 = new Myclass("Hello", -7, 2.1e10);
            FileOutputStream fos = new FileOutputStream("serial");
            ObjectOutputStream oos = new ObjectOutputStream(fos);
            oos.writeObject(object1);
            oos.flush();
            oos.close();
        }
        catch (Exception e)
        {
            System.out.println ("Serialization" + e);
            System.exit (0);
        }
        try
        {
            Myclass object2;
            FileInputStream fis = new FileInputStream("serial");
            ObjectInputStream ois = new ObjectInputStream(fis);
            object2 = (Myclass)ois.readObject();
            ois.close();
            System.out.println(object2);
        }
        catch (Exception e)
        {
            System.out.print("deserialization" + e);
            System.exit (0);
        }
    }
}
```

```

    }
}
}
class Myclass implements Serializable
{
    String s;
    int i;
    double d;
    Myclass (String s, int i, double d)
    {
        this.d = d;
        this.i = i;
        this.s = s;
    }
}

```

A. s=Hello; i=-7; d=2.1E10

B. Hello; -7; 2.1E10

C. s; i; 2.1E10

D. Serialization

32) **How an object can become serializable?**

A. If a class implements java.io.Serializable class

B. If a class or any superclass implements java.io.Serializable interface

C. Any object is serializable

D. No object is serializable

33) **What is deserialization?**

A. Turning object in memory into stream of bytes

B. Turning stream of bytes into an object in memory

C. Turning object in memory into stream of bits

D. Turning stream of bits into an object in memory

34) **Which of the following methods is not used while Serialization and DeSerialization?**

A. readObject()

B. readExternal()

C. readWriteObject()

D. writeObject()

35) **Serialized object can be transferred via network.**

A. True

B. False

36) **When does Exceptions in Java arises in code sequence?**

A. Run Time

B. Compilation Time

C. Can Occur Any Time

D. None of the mentioned

37) **Which of these keywords is not a part of exception handling?**

A. try

B. finally

C. thrown

D. catch

38) **Which of these keywords is used to manually throw an exception?**

A. try

B. finally

C. throw

D. catch

39) What will be the output of the following Java program?

```
class exception_handling
{
    public static void main(String args[])
    {
        try
        {
            int i, sum;
            sum = 10;
            for (i = -1; i < 3 ;++i)
                sum = (sum / i);
        }
        catch(ArithmeticException e)
        {
            System.out.print("0");
        }
        System.out.print(sum);
    }
}
```

A. 0

B. 05

C. **Compilation Error**

D. Runtime Error

Explanation: Value of variable sum is printed outside of try block, sum is declared only in try block, outside try block it is undefined.

40) Which of the following is a super class of all exception type classes?

A. Catchable

B. RuntimeExceptions

C. String

D. **Throwable**

41) Which of the following operators is used to generate instance of an exception which can be thrown using throw?

A. throw

B. alloc

C. malloc

D. **new**

42) Which of the following should be true of the object thrown by a throw statement?

A. Should be assignable to String type

B. Should be assignable to Exception type

C. **Should be assignable to Throwable type**

D. Should be assignable to Error type

43) Which of this class is related to all the exceptions that cannot be caught?

A. **Error**

B. Exception

C. RuntimeException

D. All of the mentioned

- 44) Which of these keywords is used to generate an exception explicitly?
- A. try
 - B. finally
 - C. **throw**
 - D. catch
- 45) Which of these keywords is used to by the calling function to guard against the exception that is thrown by called function?
- A. try
 - B. throw
 - C. **throws**
 - D. catch
- 46) What will be the output of the following Java code?
- ```
class exception_handling
{
 public static void main(String args[])
 {
 try
 {
 System.out.print("A");
 throw new NullPointerException ("Hello");
 }
 catch (ArithmeticException e)
 {
 System.out.println ("B");
 }
 }
}
```
- A. A
  - B. B
  - C. Hello
  - D. **Runtime Exception**
- 47) What will be the output of the following Java code?
- ```
public class San
{
    public static void main(String[] args)
    {
        try
        {
            return;
        }
        finally
        {
            System.out.println( "Finally" );
        }
    }
}
```
- A. **Finally**
 - B. Compilation fails
 - C. The code runs with no output

- D. An exception is thrown at runtime
- 48) **A single try block must be followed by which of these?**
- A. finally
 - B. catch
 - C. finally & catch**
 - D. none of the mentioned
- 49) **Which of these exceptions will occur if we try to access the index of an array beyond its length?**
- A. ArithmeticException
 - B. ArrayException
 - C. ArrayIndexException
 - D. ArrayIndexOutOfBoundsException**
- 50) **What will be the output of the following Java code?**
- ```
class exception_handling
{
 public static void main(String args[])
 {
 try
 {
 int a = args.length;
 int b = 10 / a;
 System.out.print(a);
 }
 catch (ArithmeticException e)
 {
 System.out.println("1");
 }
 }
}
```
- A. 0
  - B. 1**
  - C. Compilation Error
  - D. Runtime Error
- 51) **Which of these methods return description of an exception?**
- A. getException()
  - B. getMessage()**
  - C. obtainDescription()
  - D. obtainException()
- 52) **Which of these classes is super class of Exception class?**
- A. Throwable**
  - B. System
  - C. RunTime
  - D. Class
- 53) **Which of this method can be used to make the main thread to be executed last among all the threads?**
- A. stop()
  - B. sleep()**
  - C. join()
  - D. call()

- 54) Which of this method is used to find out that a thread is still running or not?
- A. run()
  - B. Alive()
  - C. **isAlive()**
  - D. checkRun()
- 55) What is the default value of priority variable MIN\_PRIORITY AND MAX\_PRIORITY?
- A. 0 & 256
  - B. 0 & 1
  - C. **1 & 10**
  - D. 1 & 256
- 56) Which of these method waits for the thread to terminate?
- A. sleep()
  - B. isAlive()
  - C. **join()**
  - D. stop()
- 57) Which of this method is used to explicitly set the priority of a thread?
- A. set()
  - B. make()
  - C. **setPriority()**
  - D. makePriority()
- 58) Which of this method is used to implement Runnable interface?
- A. stop()
  - B. **run()**
  - C. runThread()
  - D. stopThread()
- 59) Which of this statement is incorrect?
- A. A thread can be formed by implementing Runnable interface only
  - B. A thread can be formed by a class that extends Thread class
  - C. start() method is used to begin execution of the thread
  - D. **run() method is used to begin execution of a thread before start() method in special cases**
- 60) What is multithreaded programming?
- A. It's a process in which two different processes run simultaneously
  - B. **It's a process in which two or more parts of same process run simultaneously**
  - C. It's a process in which many different process are able to access same information
  - D. It's a process in which a single process can access information from many sources
- 61) Which of these are types of multitasking?
- A. Process based
  - B. Thread based
  - C. **Process and Thread based**
  - D. None of the mentioned
- 62) What will happen if two thread of the same priority are called to be processed simultaneously?
- A. Anyone will be executed first lexographically
  - B. Both of them will be executed simultaneously
  - C. None of them will be executed
  - D. **It is dependent on the operating system**
- 63) Which of these statements is incorrect?
- A. By multithreading CPU idle time is minimized, and we can take maximum use of it

- B. By multitasking CPU idle time is minimized, and we can take maximum use of it  
C. Two thread in Java can have the same priority  
**D. A thread can exist only in two states, running and blocked**
- 64) **What is true about time slicing?**  
A. Time slicing is OS service that allocates CPU time to available runnable thread  
**B. Time slicing is the process to divide the available CPU time to available runnable thread**  
C. Time slicing depends on its implementation in OS  
D. Time slicing allocates more resources to thread
- 65) **What is true about threading?**  
A. run() method calls start() method and runs the code  
B. run() method creates new thread  
C. run() method can be called directly without start() method being called  
**D. start() method creates new thread and calls code written in run() method**
- 66) **Which of the following is a correct constructor for thread?**  
A. **Thread(Runnable a, String str)**  
B. Thread(int priority)  
C. Thread(Runnable a, int priority)  
D. Thread(Runnable a, ThreadGroup t)
- 67) **Which of these keywords are used to implement synchronization?**  
A. synchronize  
B. syn  
C. synch  
**D. synchronized**
- 68) **Which of this method is used to tell the calling thread to give up a monitor and go to sleep until some other thread enters the same monitor?**  
A. **wait()**  
B. notify()  
C. notifyAll()  
D. sleep()
- 69) **Which of these method wakes up the first thread that called wait()?**  
A. wake()  
**B. notify()**  
C. start()  
D. notifyAll()
- 70) **Which of this method wakes up all the threads?**  
A. wakeAll()  
B. notify()  
C. start()  
**D. notifyAll()**
- 71) **What is synchronization in reference to a thread?**  
A. **It's a process of handling situations when two or more threads need access to a shared resource**  
B. It's a process by which many thread are able to access same shared resource simultaneously  
C. It's a process by which a method is able to access many different threads simultaneously  
D. It's a method that allow too many threads to access any information the require

### Module-3

- 1) **Which of these packages contain classes and interfaces used for input & output operations of a program?**
  - A. java.util
  - B. java.lang
  - C. java.io**
  - D. all of the mentioned
- 2) **Which of this class is not a member class of java.io package?**
  - A. String**
  - B. StringReader
  - C. Writer
  - D. File
- 3) **Which of this interface is not a member of java.io package?**
  - A. DataInput
  - B. ObjectInput
  - C. ObjectFilter**
  - D. FileFilter
- 4) **Which of this class is not related to input and output stream in terms of functioning?**
  - A. File**
  - B. Writer
  - C. InputStream
  - D. Reader
- 5) **Which of these classes is used for input and output operation when working with bytes?**
  - A. InputStream**
  - B. Reader
  - C. Writer
  - D. All of the mentioned
- 6) **Which of this class is used to read and write bytes in a file?**
  - A. FileReader
  - B. FileWriter
  - C. FileInputStream**
  - D. InputStreamReader
- 7) **Which of this method of InputStream is used to read integer representation of next available byte input?**
  - A. read()**
  - B. scanf()
  - C. get()
  - D. getInteger()
- 8) **Which of these is a method to clear all the data present in output buffers?**
  - A. clear()
  - B. flush()**
  - C. fflush()
  - D. close()
- 9) **Which of these method(s) is/are used for writing bytes to an outputstream?**
  - A. put()
  - B. print() and write()**
  - C. printf()
  - D. write() and read()

- 10) Which of this stream contains the classes which can work on character stream?  
A. InputStream  
B. OutputStream  
C. **CharacterStream**  
D. All of the mentioned
- 11) Which of this class is used to read characters in a file?  
A. **FileReader**  
B. FileWriter  
C. FileInputStream  
D. InputStreamReader
- 12) Which of this method of FileReader class is used to read characters from a file?  
A. **read()**  
B. scanf()  
C. get()  
D. getInteger()
- 13) Which of this class can be used to implement the input stream that uses a character array as the source?  
A. BufferedReader  
B. FileReader  
C. **CharArrayReader**  
D. FileArrayReader
- 14) Which of these exceptions handles the situations when an illegal argument is used to invoke a method?  
A. IllegalArgumentException  
B. Argument Exception  
C. **IllegalArgumentExpection**  
D. IllegalMethodArgumentExcepetion
- 15) Which of these packages contain all the Java's built in exceptions?  
A. java.io  
B. java.util  
C. **java.lang**  
D. java.net
- 16) Which of these exceptions will be thrown if we use null reference for an arithmetic operation?  
A. ArithmeticException  
B. **NullPointerException**  
C. IllegalAccessException  
D. IllegalOperationException
- 17) Which of this class is used to create user defined exception?  
A. java.lang  
B. **Exception**  
C. RunTime  
D. System
- 18) What will be the output of the following Java program?  
class exception\_handling  
{  
    public static void main(String args[])  
    {  
        try  
        {

```

 int a[] = {1, 2,3 , 4, 5};
 for (int i = 0; i < 5; ++i)
 System.out.print(a[i]);
 int x = 1/0;
 }
 catch(ArrayIndexOutOfBoundsException e)
 {
 System.out.print("A");
 }
 catch(ArithmeticException e)
 {
 System.out.print("B");
 }
}

```

- A. 12345  
 B. 12345A  
**C. 12345B**  
 D. Compilation Error
- 19) Which of these functions is called to display the output of an applet?  
 A. display()  
**B. paint()**  
 C. displayApplet()  
 D. PrintApplet()
- 20) Which of these methods can be used to output a string in an applet?  
 A. display()  
 B. print()  
**C. drawString()**  
 D. transient()
- 21) Which of these modifiers can be used for a variable so that it can be accessed from any thread or parts of a program?  
 A. transient  
**B. volatile**  
 C. global  
 D. No modifier is needed
- 22) Which of these operators can be used to get run time information about an object?  
 A. getInfo  
 B. Info  
**C. instanceof**  
 D. getinfoof
- 23) Which of this package is used for text formatting in Java programming language?  
**A. java.text**  
 B. java.awt  
 C. java.awt.text  
 D. java.io
- 24) Which of these packages contains all the classes and methods required for even handling in Java?  
 A. java.applet

- B. java.awt
  - C. java.event
  - D. java.awt.event**
- 25) Which of these methods are used to register a keyboard event listener?
- A. KeyListener()
  - B. addKistener()
  - C. addKeyListener()**
  - D. eventKeyboardListener()
- 26) Which of these methods are used to register a mouse motion listener?
- A. addMouse()
  - B. addMouseListener()
  - C. addMouseMotionListener()**
  - D. eventMouseMotionListener()
- 27) What is a listener in context to event handling?
- A. A listener is a variable that is notified when an event occurs
  - B. A listener is an object that is notified when an event occurs**
  - C. A listener is a method that is notified when an event occurs
  - D. None of the mentioned
- 28) Event class is defined in which of these libraries?
- A. java.io
  - B. java.lang
  - C. java.net
  - D. java.util**
- 29) Which of these methods can be used to determine the type of event?
- A. getID()**
  - B. getSource()
  - C. getEvent()
  - D. getEventObject()
- 30) Which of this class is super class of all the events?
- A. EventObject**
  - B. EventClass
  - C. ActionEvent
  - D. ItemEvent
- 31) Which of these events will be notified if scroll bar is manipulated?
- A. ActionEvent
  - B. ComponentEvent
  - C. AdjustmentEvent**
  - D. WindowEvent
- 32) Which of these events is generated when a button is pressed?
- A. ActionEvent**
  - B. KeyEvent
  - C. WindowEvent
  - D. AdjustmentEvent
- 33) Which of these methods can be used to obtain the command name for invoking ActionEvent object?
- A. getCommand()
  - B. getActionCommand()**
  - C. getActionEvent()

- D. `getActionEventCommand()`
- 34) Which of these methods can be used to know the degree of adjustment made by the user?
- A. **`getValue()`**
  - B. `getAdjustmentType()`
  - C. `getAdjustmentValue()`
  - D. `getAdjustmentAmount()`
- 35) Which of these events is generated when the size of an event is changed?
- A. **`ComponentEvent`**
  - B. `ContainerEvent`
  - C. `FocusEvent`
  - D. `InputEvent`
- 36) Which of these methods can be used to get reference to a component that was removed from a container?
- A. `getComponent()`
  - B. **`getchild()`**
  - C. `getContainerComponent()`
  - D. `getComponentChild()`
- 37) Which of these events is generated when computer gains or loses input focus?
- A. `ComponentEvent`
  - B. `ContainerEvent`
  - C. **`FocusEvent`**
  - D. `InputEvent`
- 38) Which of these is superclass of `ContainerEvent` class?
- A. `WindowEvent`
  - B. **`ComponentEvent`**
  - C. `ItemEvent`
  - D. `InputEvent`
- 39) `MouseEvent` is subclass of which of these classes?
- A. `ComponentEvent`
  - B. `ContainerEvent`
  - C. `ItemEvent`
  - D. **`InputEvent`**
- 40) Which of these methods is used to get x coordinate of the mouse?
- A. **`getX()`**
  - B. `getXCoordinate()`
  - C. `getCoordinateX()`
  - D. `getPointX()`
- 41) Which of these packages contains all the event handling interfaces?
- A. `java.lang`
  - B. `java.awt`
  - C. **`java.awt.event`**
  - D. `java.event`
- 42) Which of these interfaces handles the event when a component is added to a container?
- A. `ComponentListener`
  - B. **`ContainerListener`**
  - C. `FocusListener`
  - D. `InputListener`

- 43) Which of these methods will respond when you click any button by mouse?
- A. mouseClicked()
  - B. mouseEntered()
  - C. mousePressed()
  - D. all of the mentioned**
- 44) Which of these methods will be invoked if a character is entered?
- A. keyPressed()
  - B. keyReleased()
  - C. keyTyped()**
  - D. keyEntered()
- 45) Which of these is a superclass of all Adapter classes?
- A. Applet**
  - B. ComponentEvent
  - C. Event
  - D. InputEvent

#### Module-4

- 1) Where are the following four methods commonly used?
- i. **public void add(Component c)**
  - ii. **public void setSize(int width, int height)**
  - iii. **public void setLayout(LayoutManager m)**
  - iv. **public void setVisible(boolean)**
- A. Graphics class
  - B. Component class**
  - C. Both A & B
  - D. None of the above
- 2) Give the abbreviation of AWT?
- A. Applet Windowing Toolkit
  - B. Abstract Windowing Toolkit**
  - C. Absolute Windowing Toolkit
  - D. None of the above
- 3) The Java Foundation Classes (JFC) is a set of GUI components which simplify the development of desktop applications.
- A. True**
  - B. False
- 4) The Graphics class is the \_\_\_\_\_ for all graphics contexts.
- A. Main class
  - B. Abstract super class**
  - C. Super class
  - D. Object class
- 5) The Graphics class is resides in \_\_\_\_\_
- A. java.util
  - B. java.lang
  - C. java.applet
  - D. java.awt**

- 6) **Which method is not part of the Graphics() class**
- A. clearRect(int x, int y, int width, int height)
  - B. dispose()
  - C. drawLine(int x1, int y1, int x2, int y2)
  - D. All of the above**
- 7) **Correct declaration of -drawPolygon method is \_\_\_\_\_**
- A. drawPolygon(Polygon p)**
  - B. drawPolygon()
  - C. drawpolygon(Polygon p)
  - D. None of the above
- 8) **AWT is used for GUI programming in java**
- A. True**
  - B. False
- 9) **Which following method is used to set the graphics current color to the specified color in the graphics class?**
- A. public abstract void setFont(Font font)
  - B. public abstract void setColor(Color c)**
  - C. public abstract void drawString(String str, int x, int y)
  - D. None of the above
- 10) **Which following method can set or change the text in a Label**
- A. setText()**
  - B. getText()
  - C. All the above
  - D. None of the above