Java Programming

Unit 1: Introduction to Java

1. Which one of these lists contains Java programming language keywords?
   a. Class, if, void, long, Int, continue
   b. goto, instanceof, native, finally, default, throws
   c. Final, super, implements, do
   d. byte, break, switch, throws
2. Which is a reserved word in the Java programming language?
   a. method
   b. int
   c. subclasses
   d. array
3. Which is a valid keyword in java?
   a. interface
   b. string
   c. Float
   d. Char
4. Which of following compile code into executable code?
   a. JRE
   b. JDK
   c. JVM
   d. JIT
5. Which of following execute .class file?
   a. JRE
   b. JDK
   c. JVM
   d. JIT
6. Which of the following provide environment to write and run Java program?
   a. JRE
   b. JDK
   c. JVM
   d. JIT
7. Which of the following is standard output stream?
   a. System.out
   b. System.in
   c. Scanner
   d. println()
8. Which of the following platform is used to create desktop application?
   a. J2ME

b. J2SE
c. J2EE
d. JDK

9. Which of the following platform is used to create web application?
   a. J2ME
   b. J2SE
   c. J2EE
   d. JDK
10. Which of the following platform is used to create mobile application?
   a. J2ME
   b. J2SE
   c. J2EE
   d. JDK
11. Java is a ..... language.
   a. Weakly typed
   b. Strongly typed
   c. Moderate typed
   d. None of these
12. Which of the following is not the concept of object oriented programming?
   a. Class
   b. Inheritance
   c. JVM
   d. Abstraction
13. Which of the following is feature of Java programming?
   a. Robust
   b. Procedure oriented
   c. Risky
   d. All of above
14. Which of the following makes Java platform independent?
   a. JRE
   b. JVM
   c. Access specifier
   d. Garbage collector
15. Which of the following should be specify with main() method in Java?
   a. public and final
   b. public and static
   c. private and final
   d. private and static
16. Which of the following is object oriented programming language?
   a. C

b. FORTRAN
c. PASCAL
d. C++

17. What is encapsulation?
    a. Binds data and method together
    b. One name different forms
    c. Presents hierarchical relationship
    d. Hiding details of a process
18. What is abstraction?
    a. Binds data and method together
    b. One name different forms
    c. Presents hierarchical relationship
    d. Hiding details of a process
19. Which of the following functionality is not included in Java?
    a. Garbage collection
    b. Security
    c. Scope resolution
    d. Abstraction
20. What is polymorphism?
    a. Binds data and method together
    b. One name different forms
    c. Presents hierarchical relationship
    d. Hiding details of a process
21. What is the difference between object oriented programming language?
    a. POP supports bottom up approach where as OOP supports top down approach.
    b. In POP, program is divided into functions where as in OOP, program is divided into object.
    c. POP is more secure than OOP.
    d. All of above
22. What is the difference between Java and C++?
    a. C++ supports destructors where as Java supports garbage collector.
    b. C++ has go to statement whereas Java does not have go to statement.
    c. C++ supports operator overloading where as Java does not support operator overloading.
    d. All of above
23. Multiple inheritance means,
    a. one class inheriting from more super classes
    b. more classes inheriting from one super class
    c. more classes inheriting from more super classes
    d. None of the above

24. Among these expressions, which is(are) of type String?
    a. “0”
    b. “ab” + “cd”
    c. ‘0’
    d. Both a and b
25. Is Java secure language?
    a. True b. False
26. Java is distributed language.
    a. True b. False
27. We can use java to develop web application only.
    a. True b. False
28. To run a java program JVM need .class file and .java file.
    a. True b. False
29. Platform independent language can run on variety of CPU.
    a. True b. False
30. main method is the entry point of java program.
    a. True b. False
31. It is possible to override main method in class.
    a. True b. False
32. public is a valid keyword in Java.
    a. True b. False
33. User can create any number of classes in a single Java file.
    a. True b. False
34. Each class defined in Java is compiled into a separate class file whose name matches the class name.
    a. True b. False
35. JRE does not include Java compiler.
    a. True b. False
36. What is printed by the following statement?
    System.out.print(“Hello,\nworld!”);
    a. Hello, \nworld!
    b. Hello, world!
    c. Hello,
       World!
    d. “Hello, \nworld!”
37. What is byte code in the context of Java?
    a. The type of code generated by a Java compiler.
    b. The type of code generated by a Java Virtual Machine.
    c. It is another name for a Java source file.
    d. It is the code written within the instance methods of a class.

38. You read the following statement in a Java program that compiles and executes.
    submarine.dive(depth);
    What can you say for sure?
    a. depth must be an int
    b. dive must be a method.
    c. dive must be the name of an instance field.
    d. submarine must be the name of a class
39. Mark the incorrect statement from the following:
    a. Java is a fully object oriented language with strong support for proper software engineering techniques
    b. In java it is not easy to write C-like so called procedural programs
    c. In java language objects have to be manipulated
    d. In java language error processing is built into the language
40. Identify, from among the following, the incorrect variable name.
    a. _theButton
    b. reallyBig_
    c. 2ndName
    d. Current
41. Which of the following is invalid class name?
    a. _class
    b. demo1
    c. class_demo
    d. Integer
42. Which of the following is valid variable name?
    a. $a
    b. 1a
    c. _a
    d. #a
43. Java compiler javac translates Java source code into _____.
    a. Assembler language
    b. Byte code
    c. Bit code
    d. Machine code
44. Java source code has the extension _____
    a .class
    b. .js
    c. .java
    d. .c
45. Java byte code has the extension _____
    a. .class

b. .js
c. .java
d. .c

46. _____ are used to document a program and improve its readability.
a. System cells
b. Keywords
c. Comments
d. Control structures

47. In object-oriented programming, the process by which one object acquires the properties of another object is called
a. Encapsulation
b. Polymorphism
c. Overloading
d. Inheritance

48. Identify, from among the following, the incorrect descriptions related to Java :
a. Java Virtual Machine translates byte code into its own system's machine language and runs the resulting machine code
b. Java variable names are not case-sensitive.
c. Comments do not cause any action to be performed during the program execution
d. All variables must be given a type when they are declared

49. Consider the following statement(s) about Java:
I. All white-space characters (blanks) are ignored by the compiler.
II. Java keywords can be used as variable names.
III. An identifier does not begin with a digit and does not contain any spaces.
IV. The execution of Java applications begins at method main.
Which of them is correct?
a. Both (I) and (III)
b. Both (II) and (IV)
c. Both (I) and (II)
d. (III) and (IV)

50. Write the output for following:

```
class A {
        public static void main(String args[]){
        System.out.print("Welcome! ");
                System.out.print(" Students");}}
```

a. Welcome!
Students
b. Welcome! Students
c. Welcome!Students
d. Compile timeError

Unit 2: Building Blocks of the Language

1. Which of the following is the correct syntax to initialize an array?
   a. int [] myList = {"1", "2", "3"};
   b. int [] myList = (5, 8, 2);
   c. int myList [] [] = {4,9,7,0};
   d. int myList [] = {4, 3, 7};
2. Which of the following is not valid array declaration?
   a. int [] myScores [];
   b. char [] myChars;
   c. int [6] myScores;
   d. Dog myDogs [];
3. Which one of the following is a valid declaration of a boolean type?
   a. boolean b1 = 0;
   b. boolean b2 = 'false';
   c. boolean b3 = false;
   e. boolean b5 = no;
4. An expression involving byte, int, and short numbers is promoted to which of these?
   a. int
   b. long
   c. byte
   d. float
5. Size of int in Java is
   a. 16 bit
   b. 32 bit
   c. 64 bit
   d. Depends on execution environment
6. Automatic type conversion in Java takes place when
   a. Two type are compatible and size of destination type is shorter than source type.
   b. Two type are compatible and size of destination type is equal of source type.
   c. Two type are compatible and size of destination type is larger than source type.
   d. All of the above
7. What is the output of this program?

```
class average {
public static void main(String args[])
{
   double num[] = {5.5, 10.1, 11, 12.8, 56.9, 2.5};
   double result;
   result = 0;
   for (int i = 0; i < 6; ++i) {
      result = result + num[i]; }
```

```
    System.out.print(result/6);
}}
```

a. 16
b. 16.9666
c. 16.46666666666667
d. 16.0

8. What is the output of this program?

```
class asciicodes {
    public static void main(String args[])  {
        char var1 = 'A';
    char var2 = 'a';
    System.out.println((int)var1 + " " + (int)var2);
     }  }
```

a. 162
b. 65 97
c. 67 95
d. 66 98

9. Which of the following functionality is not included in Java?
   a. Garbage collection
   b. Security
   c. Scope resolution
   d. Abstraction
10. Select the correct sequence according to the size of an data type.
    a. int, short, long, byte
    b. int, short, byte, long
    c. byte, int, short, long
    d. byte, short, int, long
11. Which of the following is arranged according to its precedence from higher to lower?
    a. =,*, <, &&
    b. *,<,&&,=
    c. =,&&,*,<
    d. &&,<,=,*
12. Which type of data is return by relational operators?
    a. Boolean
    b. int
    c. short
    d. long
13. Which type of operators can be used in control statement?
    a. Relational
    b. Logical

c. Arithmetic
d.All of above

14. How short-circuit AND works?
a. If first condition is false, it will not check for second condition.
b. If first condition is true, it will not check for second condition.
c. If second condition is true, it will not check for first condition.
d. If second condition is false, it will not check for first condition.

15. How short-circuit OR works?
a. If first condition is false, it will not check for second condition.
b. If first condition is true, it will not check for second condition.
c. If second condition is true, it will not check for first condition.
d. If second condition is false, it will not check for first condition.

16. Which of the following is true for left shift operator?
a. It divide the number by 2.
b. It multiply the number by 3.
c. It divide the number by 3.
d. It multiply the number by 2.

17. Which of the following is true for right shift operator?
a. It divide the number by 2.
b. It multiply the number by 3.
c. It divide the number by 3.
d. It multiply the number by 2.

18. Which of the following is the equivalent statement for the given ternary operator?

```
z = x > y ? x : y ;
```

a. if(x>y) {z=y;} else {z=x;}
b. if(x>y) {z=x;} else {z=y;}
c. if(x<y) {z=y;} else {z=x;}
d. if(x<y) {z=x;} else {z=y;}

19. What is the use of control statement in program?
a. To check the condition
b. To execute the same code multiple times
c. To transfer the flow
d. None of above

20. What is the use of iteration statement in program?
a. To check the condition
b. To execute the same code multiple times
c. To transfer the flow
d. None of above

21. What is the use of jump statement in program?
a. To check the condition

b. To execute the same code multiple times
c. To transfer the flow
d. None of above
22. Jump statement is used to _____ .
a. interrupt loop and switch case
b. execute loop twice
c. abort the program
d. remove the error
23. Which of the following is the correct statement for nested if-else?
a. if(condition) {statement}
else {statement}
b. if(condition) {statement}
else if (condition){statement}
else {statement}
c. if(condition) {statement
if(condition) {statement}
else {statement}
} else {statement}
d. switch(variable) {
case label: statement;
}
24. Which of the following is the correct statement for if-else ladder?
a. if(condition) {statement}
else {statement}
b. if(condition) {statement}
else if (condition){statement}
else {statement}
c. if(condition) {statement
if(condition) {statement}
else {statement}
} else {statement}
d. switch(variable) {
case label: statement;
}
25. Which of the following is correct for entry controlled loop?
a. It first execute the loop and then checks the condition
b. It first checks the condition and then execute the loop
c. do-while is entry controlled loop.
d. It always execute at least one time.
26. Which types of data can be passed into switch statement?

a. char
b. double
c. float
d. array
27. What is the equivalent statement for y=x++?
a. y=x+1, x=x+1
b. y=x,x=x+1
c. y=y+1,x=y
d. x=y,y=y+1
28. What happens when the following code snippet is executed?

```
char c =’a’;
switch(c){
case ‘a’:System.out.println(“a”);
default:System.out.println(“Default”);
}
```

a. The letter a is printed on standard output.
b. The letter a and word Default are printed on standard output.
c. Default is printed on standard output.
d. None of the above.
29. Convert following loop into equivalent for loop.

```
    j=10;
while(j>-1)
{
    sum=sum+j;
    j--;
    }
```

a. for(j=10;j>-1;){sum=sum+j;}
b. for(j=10;j>-1;j--){sum=sum+j;}
c. for(j=10;j>-1;j--,sum=sum+j);
d. All of above
30. Analyze the following loop and give the count of how many times the loop will run.

```
m=0;
do
{
   m=m+3;
}while(m<20);
```

a. 20
b. 7
c. 19
d. 8
31. Analyze the following loop and give the count of how many times the loop will run.

```
n=31;
while(n%5<0)
{
    n--;
}
```
a. 0
b. 1
c. 2
d. 3

32. What is the output for following code?

```
class demo {
public static void main(String args[]) {
        for(int i=0;i<5;i++)
        {
                if(i==3)
                {       continue; }
                System.out.print(i+"  ");
                }
        } }
```

a. 0 1 2 3
b. 0 1 2
c. 0 1 2 4
d. 0 1 2 3 4

33. What is the output for following code?

```
class demo {
public static void main(String args[]) {
for(int i=0;i<5;i++)
{
        if(i==3)
        {       break; }
        System.out.print(i+"  ");
        }
} }
```

a. 0 1 2 3
b. 0 1 2
c. 0 1 2 4
d. 0 1 2 3 4

34. What is the output for following code?

```
class demo {
public static void main(String args[]) {
int val=10;
do
```

{
System.out.print(val+" ");
val=val-2;
} while(val>1);
}}
a. 10 8 6 4 2
b. 10 8 6 4 2 0
c. 10 8 6 4 2 1 0
d. Compile time error

35. Which of the following is invalid for loop?
a. for(; ;)
b. for()
c. for(a=0; ;)
d. for(a=0;a<6;a--)

36. What is the output for following code?
class demo {
public static void main(String args[]) {
int i=7,j=10;
int k=i++ + --j;
System.out.println(i+" "+j+" "+k); } }
a. 7 10 17
b. 8 9 16
c. 8 9 17
d. 8 9 18

37. What is the output for following code?
class demo {
public static void main(String args[]) {
int p=20,q=10;
int r= p & 6 | q;
System.out.println(p+" "+q+" " +r);
}}
a. 20 10 14
b. 40 10 20
c. 20 20 20
d. 10 20 14

38. What is the output for following code?
class demo {
public static void main(String args[]) {
int p=15,q=20;
int r= p << 1;

```
int s=q>>2;
System.out.println(r+" "+s);
}}
```

a. 15 10
b. 30 5
c. 7 40
d. 7 80

39. What is the output for following code?

```
class demo {
public static void main(String args[]) {
int n=100,i=0;
while(n>0)
{
        System.out.print(n+" ");
        n=n/5;
}}}
```

a. 100 50 5 0
b. 100 50 5
c. 100 20 4
d. 100 20 4 0

40. What is the output for following code?

```
class demo {
public static void main(String args[]) {
int n=345;
int r=0;
while(n>0)
{
        r=r*10+n%10;
        n=n/10;
}
System.out.println(r);
}}
```

a. 345
b. 12
c. 543
d. 0

41. String in Java is a?

a. class
b. object
c. variable

d. character array

42. Which of these method of String class is used to obtain character at specified index?
    a. char()
    b. Charat()
    c. charat()
    d. charAt()
43. Which of the following statements are incorrect?
    a. String is a class
    b. Strings in java are mutable
    c. Every string is an object of class String
    d. All of above
44. What is the output for following code?

```
class string_demo  {
     public static void main(String args[])  {
     String obj = "I" + "like" + "Java";
      System.out.println(obj);
  }   }
```

    a. I
    b. like
    c. Java
    d. IlikeJava
45. Which of the following the package of String and StringBuffer class?
    a. java.util
    b. java.lang
    c. ArrayList
    d. None of the mentioned
46. What is the output for following code?

```
class output
   {
      public static void main(String args[]) {
          String chars[] = {"a", "b", "c", "a", "c"};
          for (int i = 0; i < chars.length; ++i)
              for (int j = i + 1; j < chars.length; ++j)
                  if(chars[i].compareTo(chars[j]) == 0)
                      System.out.print(chars[j]);
      }}
```

    a. ab
    b. bc
    c. ca
    d. ac

47. What will s2 contain after following lines of Java code?

```
String s1 = "one";
String s2 = s1.concat("two")
```

a. one
b. two
c. onetwo
d. twoone

48. What is the meaning of immutable?
    a. The content can be modified.
    b. The content of the object cannot changed.
    c. It contains end marker.
    d. It cannot store some special characters.
49. Which of the following is invalid String constructor?
    a. String(char[] char_arr)
    b. String(String obj)
    c. String(int[] i)
    d. String(byte[] ascii_arr)
50. What will be the output of following code snippet?

```
String s="HeLLo";
System.out.println(s.toLowerCase());
```

a. HELLO
b. HeLLo
c. hello
d. None of above

Unit 3: Object Oriented Programming Concepts

1. Which of the following statement is false about object?
   a. An instance of a class is an object.
   b. Objects can access both static and instance data.
   c. Object does not occupies any space.
   d. All of above
2. A class can have many methods with the same name as long as the number of parameters or type of parameters is different. This OOP concept is known as
   a. Method Invocating
   b. Method Overriding
   c. Method Labelling
   d. Method Overloading
3. Which of the following is considered as a blue print that defines the variables and methods common to all of its objects of a specific kind?
   a. Object
   b. Class
   c. Method
   d. Real data types
4. Arguments to methods always appear within
   a. [ ]
   b. ( )
   c. { }
   d. " "
5. What is the use of constructor?
   a. To initialize the variable of class.
   b. To assign the memory.
   c. To deallocate the memory.
   d. To hide the variable.
6. What is the entry point of a program to execute?
   a. Class
   b. instance variable
   c. Object
   d. main() method
7. What is instance variable?
   a. Variable declared within method.
   b. Variable declared within class.
   c. Variable declared outside the class.
   d. Variable declared in main() method.
8. A class can contain _____ .

a. Method
b. variable
c. Constructor
d. All of above

9. Which of the following is false for constructor?
   a. It does not have return type explicitly.
   b. It has same name as class name.
   c. It cannot contain any conditional statement.
   d. It is called when object is created.
10. Which keyword is used to allocate the memory?
   a. static
   b. new
   c. malloc
   d. final
11. Which of the following is correct syntax to create the object?
   a. Student s();
   b. Student s()=new;
   c. Student s=new Student();
   d. Student s()=new Student();
12. What is false for parameterized constructor?
   a. It is also known as constructor overloading.
   b. It has arguments.
   c. When default constructor is present, parameterized constructor cannot be created.
   d. All of above.
13. Which of the following is not the use of static keyword?
   a. static variable
   b. static block
   c. static method
   d. static class
14. Static method can access _____ .
   a. static variable
   b. non- static method
   c. non-static variable
   d. All of above
15. Static variable works as a _____ .
   a. local variable
   b. constant variable
   c. global variable
   d. scope variable
16. When the static block executes?

a. At the time of file loads
b. After main() method
c. At the time of class load
d. When it is called

17. How to access the static member?
    a. With the use of class name
    b. With only member name
    c. static member cannot access
    d. None of above
18. Which of the following is true for static keyword?
    a. Static block can access only static variables.
    b. Static block is used to initialize the static members.
    c. Static block can be declared within the class.
    d. All of above
19. Which keyword is used by method to refer to the object that invoked it?
    a. super
    b. this
    c. import
    d. static
20. What is the return type of Constructors?
    a. int
    b. float
    c. void
    d. None of these
21. What is the output for following code?

```
class Equality {
        Integer x;
        Integer y;
        boolean isequal() {
            return(x == y);
        }
    }
    class Output {
        public static void main(String args[])
        {
            Equality obj = new Equality();
            obj.x = 5;
            obj.y = 5;
            System.out.println(obj.isequal());        }
    }
```

    a. True

b. False
c. 0
d. 1

22. Which of the following statements are incorrect?
a. Default constructor is called at the time of declaration of the object if a constructor has not been defined.
b. A class must have explicit constructor.
c. The implicit constructor does not have any arguments.
d. Constructor can be parameterized.

23. Which operator is used to call the method of class using object?
a. &
b. . (dot)
c. ()
d.) ;

24. What is the return type of a method that returns nothing?
a. int
b. void
c. floa
d. None of above

25. What is the output of following code?

```
class A {
    static void m1(int i) {
            System.out.println("Method1"); }
    static void m1(String s) {
            System.out.println("Method2"); }
    public static void main(String args[] ) {
            A.m1(5);
}}
```

a. Method1
b. Method2
c. Compile time error
d. None of above

26. What is the output of following code?

```
class Test {
    static void display(int x,int y) {
            System.out.println("The addition is "+x+y);
    }
    public static void main(String args[] ) {
            Test.display(5,7);
}}
```

a. The addition is 12
b. The addition is 57
c. Compile time error
d. None of above

27. Which of the following statements regarding static methods are correct?
    1. Static methods are difficult to maintain, because you cannot change their implementation.
    2 Static methods can be called using an object reference to an object of the class in which this method is defined.
    3. Static methods are always public, because they are defined at class-level.
    4. Static methods do not have direct access to non-static methods which are defined inside the same class.
    a. 1 and 2
    b. 2 and 4
    c. 3 and 4
    d. 1 and 3
28. class Test { } What is the prototype of the default constructor?
    a. Test(int a)
    b. Test(void)
    c. Test()
    d. None of above
29. Predict the output for following:

```
class employee{
      String name;
     public employee(String name) {
              this.name=name;
     }
}
public class Constructor1 {
 public static void main(String[] args[]) {
  employee e = new employee("JavaDeveloper");
  System.out.println("Emp Name : "+e.name);
 }
}
```

    a. Emp Name : JavaDeveloper
    b. JavaDeveloper
    c. Compile time error
    d. Run time error
30. Predict the output for following:

```
class emp{
      private String name;
     public employee(String name) {
```

```
            this.name=name;
        }
    }
    public class Test {
     public static void main(String[] args[]) {
      emp e = new emp("Java");
      System.out.println("Name : "+e.name);
     }
    }
```

a. Name : Java
b. Java
c. Compile time error
d. Run time error

31. What is happen when following code executes?

```
    class Animal{
    }
    public class Constructor4 {
     public static void main(String[] JavaLatte) {
      Animal a = new Animal();
     }
    }
```

a. Run with error
b. Run without error
c. Compile time error
d. Run time error

32.
```
class manager{
 String name;
 public manager(String name) {
  this.name=name;
 }
 void welcomeMessage(){
  System.out.println("Welcome to Exam");
 }
}
public class Test{
 public static void main(String[] args) {
  manager m = new manager();
 } }
```

a. Welcome to Exam
b. No output

c. Compile time error
d. Run time error
33. What would be the behaviour if one parameterized constructor is explicitly defined?
a. Compilation error
b. Compilation succeeds
c. Runtime error
d. Compilation succeeds but at the time of creating object using default constructor, it throws compilation error
34. Which method can be defined only once in a program?
a. main method
b. finalize method
c. static method
d. private method
35. Which of this statement is incorrect?
a. All object of a class are allotted memory for the all the variables defined in the class
b. If a function is defined public it can be accessed by object of other class by inheritation
c. main() method must be made public
d. All object of a class are allotted memory for the methods defined in the class
36. What is the output for following code:

```
class box
   {
      int width;
      int height;
      int length;
      int volume;
      void volume(int height, int length, int width)
      {
          volume = width*height*length;
      }
   }
   class Prameterized_method
   {
      public static void main(String args[])
      {
         box obj = new box();
         obj.height = 1;
         obj.length = 5;
         obj.width = 5;
         obj.volume(3,2,1);
         System.out.println(obj.volume);
```

```
    }
  }
```
a. 0
b. 1
c. 6
d. 25
37. Which of following keyword is used to make a class?
a. class
b. struct
c. int
d. none of the mentioned
38. Which of these statement is incorrect?
a. Every class must contain a main() method
b. main() method must be made static
c. There can be only one main() method in a program
d. main() method must be made public
39. What is the output for following code?
```
class main_class  {
      public static void main(String args[]) {
         int x = 9;
         if (x == 9)
         {
            int x = 8;
            System.out.println(x);
         } }  }
```
a. 9
b. 8
c. Compilation error
d. Runtime error
40. Which of these can be overloaded?
a. Methods
b. Constructors
c. All of the mentioned
d. None of the mentioned
41. What is the output for following code?
```
class San {
         public void m1 (int i,float f) {
                  System.out.println(" int float method"); }
          public void m1(float f,int i); {
                  System.out.println("float int method");
```

```
  }
  public static void main(String[]args)
  {
    San s=new San();
       s.m1(20,20);
  } }
```
a. int float method
b. float int method
c. compile time error
d. run time error

42. What is the output for following code?

```
class A {
          public void m1 (int i,int j) {
                    System.out.println(" int values"); }
           public void m1(float f,int i); {
                    System.out.println("float int values");
  }
  public static void main(String[]args){
    A obj=new A();
       obj.m1(2.0f,2.0f);
  } }
```
a. int values
b. float int values
c. compile time error
d. run time error

43. What is the output for following code?

```
class overload  {
       int x;
          double y;
       void add(int a , int b)         {
          x = a + b;
       }
       void add(double c , double d) {
          y = c + d;
       } }
    class Overload_methods  {
       public static void main(String args[]) {
          overload obj = new overload();
          int a = 2;
          double b = 3.2;
```

```
        obj.add(a, a);
        obj.add(b, b);
        System.out.println(obj.x + " " + obj.y);
    }  }
```

a. 6 6
b. 6.4 6.4
c. 6.4 6
d. 4 6.4

44. What is the output for following code?

```
class test  {
    int a;
    int b;
    void meth(int i , int j)  {
        i *= 2;
        j /= 2;
    }   }
  class Output {
    public static void main(String args[]) {
        test obj = new test();
            int a = 10;
        int b = 20;
        obj.meth(a , b);
        System.out.println(a + " " + b);
    }  }
```

a. 10 20
b. 20 10
c. 20 40
d. 40 20

45. What is the output for following code?

```
class access {
    public int x;
        static int y;
    void cal(int a, int b) {
        x +=  a ;
        y +=  b;
    }   }
  class static_specifier {
    public static void main(String args[]) {
        access obj1 = new access();
        access obj2 = new access();
```

```
        obj1.x = 0;
        obj1.y = 0;
        obj1.cal(1, 2);
        obj2.x = 0;
        obj2.cal(2, 3);
        System.out.println(obj1.x + " " + obj2.y);
    }}
```

a. 1 2
b. 2 3
c. 3 2
d. 1 5

46. What is the output for following code?

```
class access {
    static int x;
    void increment() {
       x++;      }   }
  class static_use  {
     public static void main(String args[]) {
        access obj1 = new access();
        access obj2 = new access();
        obj1.x = 0;
        obj1.increment();
        obj2.increment();
        System.out.println(obj1.x + " " + obj2.x);
     } }
```

a. 1 2
b. 1 1
c. 2 2
d. Compilation Error

47. Which of these can be used to differentiate two or more methods having the same name?
a. Parameters data type
b. Number of parameters
c. Return type of method
d. All of the mentioned

48. True /False: Only change in return type can method overloaded.
    a. True b. False

49. True /False: Method overloading is same as method overriding.
    a. True b. False

50. True /False: Method overloading is same as method overriding.
    a. True b.

Unit 4: Inheritance, Packages & Interfaces

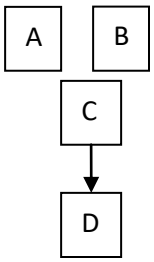
1 What is inheritance?
   a. Extending one class into another.
   b. Wrapping of data into class.
   c. Hiding data.
   d. Hiding procedure

2 Which keyword is used to inherit one class into another?
   a. implements
   b. extends
   c. super
   d. static

3 Which of the following is not the type of inheritance?
   a. Hierarchical
   b. Multiple
   c. Triple
   d. Multi level

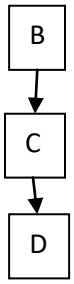
4 Which of the following type is not possible to implement directly in Java?
   a. Hybrid
   b. Multiple
   c. Hierarchical
   d. Multi level

5 Identify super class and sub class from following figure:



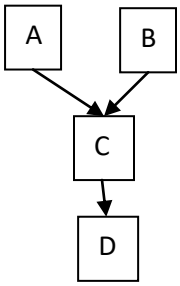
   a. Super class: A
      Sub class: B
   b. Super class: B
      Sub class: C
   c. Super class: C
      Sub class: D
   d. Super class: D
      Sub class: C

6 Identify the type of inheritance from following figure:



a. Multiple
b. Hybrid
c. Single
d. Multi level

7 Identify the type of inheritance from following figure:



a. Multiple
b. Hybrid
c.Simple
d.Multi level

8 Identify the type of inheritance from following code:

```
class A {
//statements
}
class B extends A {
//statements
}
```

a. Multiple
b. Hierarchical
c. Simple
d. Multi level

9 Identify the type of inheritance from following code:

```
class A {
//statement
}
class B extends A {
//statements
```

```
}
class C extends A {
//statements
}
```

a. Multiple
b. Hierarchical
c. Single
d. Multi level

10 Write the output for following code:

```
class Person {
String name;
void print() {
System.out.println("Name:"+name);
} }
class Student extends Person{
int En_no;
void Display() {
System.out.println("Name:"+name);
System.out.println("En: "+En_no);
} }
class demo {
public static void main(String args[]) {
Student s=new Student();
s.name="Kruyanshi";
s.En_no=90;
s.print();
s.Display(); }}
```

a. Name: Kruyanshi
En: 90
b. Name: Kruyanshi
Name: Kruyanshi
En: 90
c. Name: Kruyanshi
d. Name: Kruyanshi
En: 90
Name: Kruyanshi
En: 90

11 What is the use of super keyword?

a. To call super class constructor
b. To call super class method

c. To call super class variable
d. All of above

12 Identify the error from following code:

```
class A {
int i;
A(int i)
{
    this.i=i;
}}
class B extends A {
int j;
B(int j)
{
this.j=j;
}}
```

a. method is missing in both class.
b. Class A cannot be inherited.
c. Super class does not have default constructor.
d. variable i is not initialized.

13 In which of the following scenario, super keyword is used to call super class variable?
a. When super class does not have variable
b. When sub class does not have variable
c. When super class and sub class both have same variable name
d. None of above

14 super keyword can work with only _____ .
a. Inheritance
b. Abstract class
c. Interface
d. final keyword

15 What is the use of final keyword?
a. It does not allow to inherit class.
b. It does not allow to override method.
c. It does not allow to update the value of variable.
d. All of above.

16 Which keyword is used to prevent inheritance?
a. super
b. final
c. this
d. static

17 What is the error in following code?

```
class demo {
final int i;
}
```

a. Variable i cannot declare as final.
b. Variable i must be initialized when it is declared.
c. All of above
d. None of above

18 What is method overriding?
a. Class has more than one method with same name and same prototype.
b. Subclass has the same method as declared in parent class and have same prototype.
c. Class has more than one method with same name and different prototype.
d. Subclass has the same method as declared in parent class and have different prototype.

19 What is the rule for method overriding?
a. Inheritance is required to perform method overriding.
b. Method must have same name as parent class.
c. Method must have same parameter as parent class.
d. All of above.

20 What is run time polymorphism?
a. Method overloading
b. Method overriding
c. Use of final keyword
d. Use of super keyword

21 What is the difference between method overloading and method overriding?
a. Method overloading must have different parameter, method overriding must have same parameter.
b. Method overloading must have same parameter, method overriding must have different parameter.
c. Method overloading does in different class where as method overriding does in same class.
d. None of above.

22 What is the output of following code?

```
class exam {
    int en;
    void display() { System.out.println(en);}}
class result {
    float r;
    void display() { System.out.println(r);}}
class test{
 public static void main(String args[])
{
result re= new result();
```

re.en=10;
re.r=70.55f;
re.display(); } }
a. 70.55
b. 10
c. 70.55f
d. 10
70.55

23 How to prevent method overriding?
a. By declaring method as final
b. By declaring method as static
c. By declaring method as super
d. All of above

24 What is the use of package?
a. To provide access protection
b. To create the data
c. For backup
d. To increase the complexity

25 Which of the following can be stored in package?
a. class
b. interface
c. another package
d.All of above

26 How naming collision can be solved using package?
a. Two classes having same name can be stored in one package.
b. Two classes having same name can be stored in two different packages.
c. Two classes cannot have same name.
d. Package cannot resolve the issue.

27 Which of the following is not the built in package in Java?
a. lang
b. util
c. untill
d. awt

28 How to access the class of any package?
a. pacakgename.classname
b. classname.packagename
c. By using classname
d. By using packagename

29 What is the use of import keyword?
a. To use any class into another class

b. To hide the class from another class
c. To use any class into another class having different package
d. To hide the package from another package

30 How to declare the user defined package?
a. import p1;
b. packages p1;
c. package p1;
d. class p1;

31 Match the following:

i) lang	p) It contains classes for creating and executing queries.
ii) util	q) It includes language supported class.
iii) sql	r) It contains the classes for the networking.
iv) net	s) It has language utility classes.

a. i - p, ii- s, iii-r, iv-q
b. i - s, ii- r, iii-q, iv-p
c. i - q, ii- s, iii-p, iv-r
d. i - q, ii- s, iii-r, iv-p

32 How to compile and run the class stored in package? Filename: f1.java Classname: c1.class Packagename: p1
a. javac -d f1.java
java p1.c1
b. javac -d . f1.java
java p1.c1
c. javac -d . f1.java
java c1
d. javac -d f1.java
java c1

33 Which of the following is true?
a. Declaration of package must be first line.
b. import statement must be first line.
c. Declaration of package must be last line.
d. import statement must be last line.

34 How import keyword can be used in any program?
a. import packagename.*;
b. import packagename.classname;
c. a & b both are true
d. a & b both are false

35 Which of the following is not access protection?
a. public
b. protected
c. personal

d. private

36 Which of the following is true for public access protection?
a. It can access everywhere.
b. It can access within same package only.
c. It can access within the class.
d. It can access within same package and subclasses of different packages.

37 Which of the following is true for private access protection?
a. It can access everywhere.
b. It can access within same package only.
c. It can access within the class.
d. It can access within same package and subclasses of different packages.

38 Which of the following is true for protected access protection?
a. It can access everywhere.
b. It can access within same package only.
c. It can access within the class.
d. It can access within same package and subclasses of different packages.

39 Which of the following is true for default access protection?
a. It can access everywhere.
b. It can access within same package only.
c. It can access within the class.
d. It can access within same package and subclasses of different packages.

40 Which of the following is false?
a. When there is no specifier, then it is considered as default.
b. Class, method and variable can have specifier.
c. When any variable is declared as private, its subclass cannot access it.
d. Protected is accessible to same package only.

41 Which keyword is used to declare any class as abstract class?
a. final
b. interface
c. abstract
d. import

42 Which of the following is true for abstract class?
a. abstract class may have both abstract and non-abstract methods.
b. Abstract class cannot be instantiated.
c. Abstract class can contain constructor.
d. All of above.

43 Which of the following is the correct syntax for declaring abstract method?
a. abstract void getData();
b. abstract void getData() { }
c. void getData();

d. void getData() { }

44 When abstract class is inherited into any other class, which of the following action is correct?
a. All abstract methods of abstract class must be implemented.
b. Class must be declared as abstract class.
c. Both a and b
d. None of a an b

45 When subclass is implementing the abstract method of super class, what should be taken care?
a. Method name should be same.
b. Prototype should be same.
c. Access specifier should be same or higher.
d. All of above.

46 Which keyword is used to implement interface?
a. implements
b. implement
c. extend
d. extends

47 Which mechanism is used to implement multiple interface in Java?
a. abstract class
b. interface
c. package
d. Access protection

48 Which keyword is used to declare interface?
a. class
b. abstract
c. interface
d. None of above

49 Which of the following is true for interface?
a. All methods of interface is by default public.
b. All methods of interface is by default abstract.
c. When class is implementing the method of interface, it must be declared as public.
d. All of above

50 The variable declared in interface is by default _____ .
a. public
b. final
c. static
d. All of above

Unit 5: Exception Handling & Multithreaded Programming

1. Which key word is used to handle the exception?
   a. try-catch
   b. throws
   c. throw
   d. finally
2. Which of the following is not true?
   a. The only solution to error is to terminate the execution.
   b. The only solution to exception is to terminate the execution.
   c. Errors cannot recover.
   d. Exceptions can recover.
3. Which of the following is not type of exception?
   a. Checked
   b. Unchecked
   c. Error
   d. None of Above
4. If program has an unchecked exception and it is not handled, then what will be the scenario?
   a. Program will not compile.
   b. Program will compile and run successfully.
   c. Program will compile but not able to run a single line.
   d. Program will compile and run but terminated at the point of exception.
5. If program has an checked exception and it is not handled, then what will be the scenario?
   a. Program will not compile.
   b. Program will compile and run successfully.
   c. Program will compile but not able to run a single line.
   d. Program will compile and run but terminated at the point of exception.
6. Which of the following is not the type of unchecked exception?
   a. ArrayIndexOutOfBoundsException
   b. StringIndexOutOfBoundsException
   c. IOException
   d. ArithmeticException
7. What will be the output of the following code?

```
class demo {
public static void main(String args[])
{
int a=10,b=0;
System.out.println(“Before try block”);
```

```
try {
System.out.println(“In try block”);
int c=a/b;
        System.out.println(“Last  statement in try block”);
}
catch (ArithmeticException e) {
System.out.println(“Arithmetic Exception occurs: “);
}
System.out.println(“Program ends”);
} }
```

a. Before try block
In try block
Arithmetic Exception occurs:
Program ends
b. Before try block
In try block
Last statement in try block
Arithmetic Exception occurs:
Program ends
c. Before try block
In try block
Last statement in try block
Program ends
d. Before try block
In try block

8. What will be the output of the following code?

```
class demo {
public static void main(String args[])
{
int a=10,b=10;
System.out.println(“Before try block”);
try {
System.out.println(“In try block”);
int c=a/b;
        System.out.println(“Last  statement in try block”);
}
catch (ArithmeticException e) {
System.out.println(“Arithmetic Exception occurs: “);
}
System.out.println(“Program ends”);
```

} }

a. Before try block
In try block
Arithmetic Exception occurs:
Program ends
b. Before try block
In try block
Last statement in try block
Arithmetic Exception occurs:
Program ends
c. Before try block
In try block
Last statement in try block
Program ends
d. Before try block
In try block

9. What will be the output of the following code?

```
class demo {
public static void main(String args[])
{
int a=10,b=0;
System.out.println(“Before try block”);
try {
System.out.println(“In try block”);
int c=a/b;
        System.out.println(“Last  statement in try block”);
}
catch (Arithmetic e) {
System.out.println(“Arithmetic Exception occurs: “);
}
System.out.println(“Program ends”);
} }
```

a. Before try block
In try block
Arithmetic Exception occurs:
Program ends
b. Before try block
In try block
Last statement in try block
Arithmetic Exception occurs:

Program ends
c. Before try block
In try block
Last statement in try block
Program ends
d. Before try block
In try block

10. What is the cause of ArithmeticException?
    a. int ary[]=new int[3];
            ary[7]=10;
    b. String s="Hello";
            s.charAt(10);
    c. int a=10/0;
    d. String str=null;
            str.charAt(8);
11. What is the cause of NullPointerException?
    a. int ary[]=new int[3];
            ary[7]=10;
    b. String s="Hello";
            s.charAt(10);
    c. int a=10/0;
    d. String str=null;
            str.charAt(8);
12. What is the cause of ArrayIndexOutOfBoundsException?
    a. int ary[]=new int[3];
            ary[7]=10;
    b. String s="Hello";
            s.charAt(10);
    c. int a=10/0;
    d. String str=null;
            str.charAt(8);
13. What is the cause of StringIndexOutOfBoundsException?
    a. int ary[]=new int[3];
            ary[7]=10;
    b. String s="Hello";
            s.charAt(10);
    c. int a=10/0;
    d. String str=null;
            str.charAt(8);
14. What is the cause of NumberFormatException?

a. String s="123@";
int a=Integer.parseInt(s);
b. String s="Hello123";
s.charAt(10);
c. int a=10/0;
d. String str=null;
str.charAt(8);

15. Which of the following statement will generate ArrayIndexOutOfBoundsException from given array? int ary[]=new int[10];
a. for(int i=0;i<10;i++) { ary[i]=i;}
b. for(int i=0;i<=10;i++) { ary[i]=i;}
c. for(int i=0;i<9;i++) { ary[i]=i;}
d. for(int i=0;i<=9;i++) { ary[i]=i;}
16. Which of the following block executes always?
a. try block
b. catch block
c. finally block
d. All of above
17. Which of the following statement is not true?
a. try block works without catch block.
b. try-finally block works.
c. catch block works without try block.
d. All of above
18. What is the output of following code?

```
class demo
{
   public static void main (String[] args)
   {
      int[] arr = new int[4];
     try   {
         int i = arr[4];
                System.out.println("Inside try block");
      }
      catch(ArrayIndexOutOfBoundsException ex)  {
         System.out.println("Exception caught in catch block");
      }
      finally
      {
         System.out.println("finally block executed");
      }
```

```
        System.out.println("Outside try-catch-finally clause");
    } }
```

a. Inside try block
   finally block executed
   Outside try-catch-finally clause
b. Inside try block
   Outside try-catch-finally clause
c. Exception caught in catch block
   finally block executed
   Outside try-catch-finally clause
d. Exception caught in catch block
   Outside try-catch-finally clause

19. Which of following is not true for throws keyword?
    a. It is used to declare the exception.
    b. It can handle the exception.
    c. It postpone the handling of exception.
    d. It uses with the method prototype.
20. Which of these keywords is used to generate an exception explicitly?
    a. try
    b. finally
    c. throw
    d. catch
21. Which of these class is related to all the exceptions that are explicitly thrown?
    a. Error
    b. Exception
    c. Throwable
    d. Throw
22. Which of these operator is used to generate an instance of an exception than can be thrown by using throw?
    a. new
    b. malloc
    c. alloc
    d. thrown
23. 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
24. What will be the output for following code?

```
class exception_handling {
      public static void main(String args[])    {
         try   {
            System.out.print("A");
            throw new NullPointerException ("Hello");   }
         catch(ArithmeticException e)      {
            System.out.print("B");
         }   }    }
```

a. A
b. B
c. Hello
d. Runtime Exception

25. What will be the output for following code?

```
public class San {
   public static void main(String args[])   {
      try    {
         System.out.print("Hello world ");}
      finally {
         System.out.println("Finally executing ");
      } }    }
```

a. The program will not compile because no exceptions are specified
b. The program will not compile because no catch clauses are specified
c. Hello world
d. Hello world Finally executing

26. Which of these class is related to all the exceptions that cannot be caught?
a. Error
b. Exception
c. RuntimeExecption
d. All of the mentioned

27. What will be the output for following code?

```
class Myexception extends Exception {
String s;
Myexception(String s) {
this.s=s;
}}
class demo {
public static void main(String args[]) {
try {
int a=20;
if(a>10) {
```

throw new Myexception(“Value is greater”); }
catch(Myexception e) {
System.out.prinltn(“Exception is handled”);
} }}

a. No output
b. Value is greater
c. Exception is handled
d. Value is greater Exception is handled

28. Identify the exception that can be generated in following code:

```
class demo {
public static void main(String args[])
{
int a=Integer.parseInt(args[0]);
int b=Integer.parseInt(args[1]);
int c=a/b;
System.out.println(c);
}}
```

a. ArrayIndexOutOfBoundsException
b. NumberFormatException
c. ArithmeticException
d. All of above

29. When exception is generated, what can be happened?
    a. Program is aborted, if it is not properly handled.
    b. Program is aborted, though it is handled properly.
    c. Program is running successfully regardless of it is handled or not.
    d. None of above
30. The _____statement is passed a single parameter, which is reference to the exception object thrown.
    a. throw
    b. catch
    c. finally
    d. try
31. Exception classes are available in the _____package.
    a. java.lang
    b. java.awt
    c. java.io
    d. java.applet
32. What is the name of the method used to start a thread execution?
    a. init()
    b. start()
    c. run()

d. resume()

33. Which two are valid constructors for threads?
    a. Thread(Runnable r, String name);
    b. Thread();
    c. Thread(int Priority);
    d. Thread(Runnable r,ThreadGroup g);
    e. Thread(Runnable r,int Priority);
34. Which are the three methods of the object class?
    1. notify();
    2. notifyAll();
    3. isInturrupted();
    4. synchronized();
    5. interrupt();
    6. wait(long millisecond);
    7. sleep(long milisecond);
    8. yield();
    a. 1,2,3
    b. 2,4,5
    c. 1,2,6
    d. 2,3,4
35. class x implements Runnable{
    public static void main(String args[]){
        /*missing code*/
    }
    public void run() {}
      }
    Which of the following line code is suitable to start a thread?
    a. Thread t = new Thread(x);
    b. Thread t = new Thread(x).start();
    c. X run= new x();Thread t= new Thread(run); t.strat();
    d. Thread t= new Thread(); t.run();
36. Which cannot directly cause a thread to stop executing?
    a. Calling the setPriority() method on a thread object.
    b. Calling wait() method on an object.
    c. Calling notify() method on an object
    d. Calling read() method on an Inputstream object.
37. Which two of the following methods are defined in class thread?
    start();
    wait();
    notify();
    run();
    terminate();
    a. 1 and 4
    b. 2 and 3
    c. 3 and 4
    d. 2 and 4

38. Which of the following will directly stop execution of tread?
    a. wait()
    b. notify()
    c. notifyAll()
    d. exit synchronized code
39. Which method must be defined by a class implementing the java.lang.Runnable?
    a. void run()
    b. public void run()
    c. public void start()
    d. void run(int priority)
40. Which will contain the body of the thread?
    a. run();
    b. start();
    c. stop();
    d. main();
41. Which method registers a thread in a thread scheduler?
    a. run();
    b. construct();
    c. start();
    d. register();
42. Which class or interface defines the wait(), notify(), and notifyAll() methods?
    a. Object
    b. Thread
    c. Runnable
    d. class
43. A terminated thread cannot be resumed.
    a. True b. False
44. A thread can be preempted by a higher-priority thread.
    a. True b. False

    A thread can voluntarily relinquish control.
    a. True b. False
45. Multithreading introduces an asynchronous behavior to your programs.
    a. True b. False
46. The suspend()method is used to terminate a thread.
    a. True b. False
47. The run() method should necessary exists in classes created as subclass of thread.
    a. True b. False
48. When two threads are waiting on each other and can't proceed the program is said to be in a deadlock.
    a. True b. False
49. The word synchronized can be used with only a method.
    a. True b. False
50. The suspend()method is used to terminate a thread.
    a. True b. False

Unit 6: File Handling

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 these class is not a member class of java.io package?
a. String
b. StringReader
c. Writer
d. File
3. Which of these interface is not a member of java.io package?
a. DataInput
b. ObjectInput
c. ObjectFilter
d. FileFilter
4. Which of these 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 is specified by a File object?
a. a file in disk
b. directory path
c. directory in disk
d. none of the mentioned
6. Which of these is method for testing whether the specified element is a file or a directory?
a. IsFile()
b. isFile()
c. Isfile()
d. isfile()
7. What will be the output of the following Java code?

```
import java.io.*;
class files
{
   public static void main(String args[])
   {
      File obj = new File("/java/system");
```

```
        System.out.print(obj.getName());
    }
}
```

a. java
b. system
c. java/system
d. /java/system

8. What will be the output of the following Java program?

```
import java.io.*;
class files
{
    public static void main(String args[])
    {
        File obj = new File("/java/system");
        System.out.print(obj.getAbsolutePath());
    }
}
```

a. java
b. system
c. java/system
d. \java\system

9. What will be the output of the following Java program?

```
import java.io.*;
class file {
    public static void main(String args[])
    {
        File obj = new File("/java/system");
        System.out.print(obj.canWrite());
        System.out.print(" " + obj.canRead());
    }
}
```

a. true false
b. false true
c. true true
d. false false

10. What will be the output of the following Java program? (Note: file is made in c drive.)

```
import java.io.*;
class files
{
    public static void main(String args[])
```

```
    {
        File obj = new File("/java/system");
        System.out.print(obj.getParent());
        System.out.print(" " + obj.isFile());
    }
}
```

a. java true
b. java false
c. \java false
d. \java true

11. 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

12. Which of these class is used to read and write bytes in a file?
a. FileReader
b. FileWriter
c. FileInputStream
d. InputStreamReader

13. Which of these method of InputStream is used to read integer representation of next available byte input?
a. read()
b. scanf()
c. get()
d. getInteger()

14. Which of these data type is returned by every method of OutputStream?
a. int
b. float
c. byte
d. none of the mentioned

15. Which of these is a method to clear all the data present in output buffers?
a. clear()
b. flush()
c. fflush()
d. close()

16. 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()

17. What will be the output of the following Java program?

```
import java.io.*;
class filesinputoutput  {
   public static void main(String args[])    {
      InputStream obj = new FileInputStream("inputoutput.java");
      System.out.print(obj.available());
   }
}
```

a. true

b. false

c. prints number of bytes in file

d. prints number of characters in the file

18. What will be the output of the following Java program?

```
import java.io.*;
public class filesinputoutput  {
      public static void main(String[] args)  {
         String obj  = "abc";
        byte b[] = obj.getBytes();
        ByteArrayInputStream obj1 = new ByteArrayInputStream(b);
        for (int i = 0; i < 2; ++ i)  {
           int c;
           while ((c = obj1.read()) != -1)
           {
                    if(i == 0) {
                       System.out.print((char)c);
                    } } } } }
```

a. abc

b. ABC

c. ab

d. AB

19. What will be the output of the following Java program?

```
import java.io.*;
public class filesinputoutput     {
      public static void main(String[] args)      {
         String obj  = "abc";
        byte b[] = obj.getBytes();
        ByteArrayInputStream obj1 = new ByteArrayInputStream(b);
        for (int i = 0; i < 2; ++ i)
        {
```

```
            int c;
            while ((c = obj1.read()) != -1)   {
                    if (i == 0)
               {
                  System.out.print(Character.toUpperCase((char)c));
                     } } } } }
```

a. abc
b ABC
c. ab
d. AB

20. What will be the output of the following Java program?

```
   import java.io.*;
   public class filesinputoutput {
         public static void main(String[] args)
      {
            String obj  = "abc";
        byte b[] = obj.getBytes();
        ByteArrayInputStream obj1 = new ByteArrayInputStream(b);
        for (int i = 0; i < 2; ++ i)    {
            int c;
            while ((c = obj1.read()) != -1)   {
                    if (i == 0)
               {
                  System.out.print(Character.toUpperCase((char)c));
                  obj2.write(1);
                     } }
            System.out.print(obj2);
        } } }
```

a. AaBaCa
b. ABCaaa
c. AaaBaaCaa
d. AaBaaCaaa

21. Which of these stream contains the classes which can work on character stream?

a. InputStream
b. OutputStream
c. Character Stream
d. All of the mentioned

22. Which of these class is used to read characters in a file?

a. FileReader
b. FileWriter

c. FileInputStream
d. InputStreamReader
23. Which of these method of FileReader class is used to read characters from a file?
a. read()
b. scanf()
c. get()
d. getInteger()
24. Which of these 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
25. Which of these classes can return more than one character to be returned to input stream?
a. BufferedReader
b. Bufferedwriter
c. PushbachReader
d. CharArrayReader
26. What will be the output of the following Java program?

```
import java.io.*;
class Chararrayinput     {
   public static void main(String[] args) {
         String obj  = "abcdef";
      int length = obj.length();
      char c[] = new char[length];
      obj.getChars(0,length,c,0);
      CharArrayReader input1 = new CharArrayReader(c);
      CharArrayReader input2 = new CharArrayReader(c, 0, 3);
      int i;
      try {
            while ((i = input1.read()) != -1) {
         System.out.print((char)i);
      } }
      catch (IOException e)  {
         e.printStackTrace();
      } }    }
```

a. abc
b. abcd
c. abcde
d. abcdef

26. What will be the output of the following Java program?

```
import java.io.*;
class Chararrayinput   {
   public static void main(String[] args) {
        String obj  = "abcdef";
     int length = obj.length();
     char c[] = new char[length];
     obj.getChars(0, length, c, 0);
     CharArrayReader input1 = new CharArrayReader(c);
     CharArrayReader input2 = new CharArrayReader(c, 0, 3);
     int i;
     try{
           while ((i = input2.read()) != -1)
        {
          System.out.print((char)i);
        }  }
     catch (IOException e)
     {
                e.printStackTrace();
        }}}
```

a. abc
b. abcd
c. abcde
d. abcdef

27. What will be the output of the following Java program?

```
import java.io.*;
class Chararrayinput   {
   public static void main(String[] args) {
        String obj  = "abcdefgh";
     int length = obj.length();
     char c[] = new char[length];
     obj.getChars(0, length, c, 0);
     CharArrayReader input1 = new CharArrayReader(c);
     CharArrayReader input2 = new CharArrayReader(c, 1, 4);
     int i;
     int j;
     try {
           while ((i = input1.read()) == (j = input2.read()))
        {
          System.out.print((char)i);
```

```
    } }
  catch (IOException e) {
        e.printStackTrace();
    }}}
```

a. abc
b. abcd
c. abcde
d. none of the mentioned

28. Which of the following is true for stream?
    a. It is a sequence of data.
    b. It is linked to a physical layer by java I/O system to perform input and output operation in java.
    c. Input and output streams are used to deal with device.
    d. All of above
29. Which of the following can be worked as input and output devices?
    a. Disk file
    b. Network socket
    c. keyboard
    d. All of above
30. Which of the following is the standard default devices?
    a. System.out
    b. System.in
    c. System.err
    d. All of above
31. Which of the following is valid stream?
    a. Int
    b. Byte
    c. Float
    d. None of above
32. Which of the following is not valid subclass of input stream?
    a. FileInputStream
    b. ByteArrayInputStream
    c. ClassInputStream
    d. ObjectInputStream
33. Which of the following class is used to read Java's standard data types?
    a. DataInputStream
    b. FileInputStream
    c. ObjectInputStream
    d. BufferedInputStream
34. Which of the following is invalid method of InputStream?

a. read()
b. write()
c. available()
d. close()

35. Which exception needs to be handled while working with FileInputStream?
a. NullpointerException
b. IOException
c. ArrayIndexOutOfBoundsException
d. ClassNotFoundException

36. What is the output of following code?

```
import java.io.*;
class byte_stream{
public static void main(String args[]){
     byte buf[]={1,2,3,4,5,6,7,8,9,10,11,12};
     byte in_source[]=new byte[10];
     ByteArrayInputStream is=new ByteArrayInputStream(buf);
              is.read(in_source,0,10);
     for(int i=0;i<in_source.length;i++)
                       System.out.print(in_source[i]+" ");

}}
```

a. 1 2 3 4 5 6 7 8 9 10
b. 2 3 4 5 6 7 8 9 10 11
c. 0 0 0 1 2 3 4 5 6 0
d. Exception

37. What is the output of following code?

```
import java.io.*;
public class byteArray {
   public static void main(String args[]){
    byte buf[]={1,2,3,4,5,6,7,8,9,10,11,12};

      ByteArrayInputStream bis=new ByteArrayInputStream(buf);
      byte b[]=new byte[16];
      int n=bis.read(); //No need try catch block
     System.out.print(n);
} }
```

a. 3
b. 2
c. 1
d. 0

38. Which of the following is the invalid method of DataInputStream?
    a. readBoolean()
    b. readfloat()
    c. readByte()
    d. readInt()
39. InputStream is abstract class.
    a. True b. False
40. InputStream is alone capable of handling input and output both.
    a. True b. False
41. OutputStream can be used to write output on console.
    a. True b. False
42. Stream is dependent on device from which data is taken.
    a. True b. False
43. To read data from file, FileInputStream is used.
    a. True b. False
44. read() method is abstract in InputStream class.
    a. True b. False
45. Return type of read() method is int.
    a. True b. False
46. It is advisable to close the stream after using it.
    a. True b. False
47. All methods of OutputStream class is by default private.
    a. True b. False
48. It is mandatory to handle the exception when working with OutputStream.
    a. True b. False
49. objectoutputstream is the subclass of OutputStream class.
    a. True b. False
50. BufferoutputStream is the subclass of OutputStream class.
    a. True b. False