

2.

What is a variable?

1. Any inputted data
2. A type of algorithm
3. A labelled part of the computer's memory
4. A way of repeating a block of code

7. What is the error in the following code fragment?

```
float average [20];
```

```
average[20] = 15.25;
```

- A cast is required
- data not initialized
- A two-dimensional array is required
- Array Out-of-bounds error

12.

Choose correct purpose of indexOf() in String class.

1. returns the index (the position) of the last occurrence of a specified text in a string
2. returns the character of the first occurrence of a specified character in a string
3. returns the index (the position) of the first occurrence of a specified text in a string (excluding whitespace)
4. returns the index (the position) of the first occurrence of a specified text in a string (including whitespace)

18.

'Aging' is

1. keeping track of cache contents
2. keeping track of what pages are currently residing in memory
3. keeping track of how many times a given page is referenced
4. increasing the priority of jobs to ensure termination in a finite time

21.

Mutual exclusion can be provided by the

1. Mutex locks
2. Binary semaphores
3. Both Mutex locks and binary semaphores
4. none of the mentioned

22.

Which of the following is the best answer, in a modern General Purpose OS (GPOS):

1. Each active application is managed, using a single process or multiple processes
2. Each active application is managed, without using processes
3. Multiple active applications are managed, using a single common process
4. None of the above

24.

Which of the following is the best answer, in a modern Linux:

1. ls and ps are supervisor system utilities
2. ls and ps are regular system utilities
3. chrt is a regular system utility
4. None of the above

25.

if a process/thread is preempted :

1. it is added to blocked state
2. it is added to preempted state
3. it is added to ready state
4. it is added to stopped state

27.

If a user's process does not have sufficient execute permissions, for a directory, which of the following is true :

1. it cannot access the files, under the directory
2. it cannot update the files, under the directory, but can read their contents
3. it can read from and write to the files, under the directory
4. none of the above

31.

What does `foo.getClass().getMethod("doSomething", null)` return?

1. `doSomething` method instance
2. Method is returned and we can call the method as `method.invoke(foo,null);`
3. Class object
4. Exception is thrown

32.

What is the output of this program?

```
1. class A
2. {
3.     public inti;
4.     public int j;
5. A()
6. {
7.     i=1;
8.     j =2;
9. }
10. }
11. class B extends A
12. {
13.     int a;
14. B()
15. {
16.     super();
17. }
18. }
19. Class super_use
20. {
21.     Public static void main(String args[])
22.     {
23.         B obj =new B();
24.         System.out.println(obj.i+" "+obj.j)
25.     }
26. }
```

1. 1 2
2. 2 1
3. Runtime Error
4. Compilation Error

33.

finalize method is a method of the class

1. String
2. Exception
3. Object
4. None of the above

37.

Which statement is true about a static nested class?

1. You must have a reference to an instance of the enclosing class in order to instantiate it.
2. It does not have access to non static members of the enclosing class.
3. It's variables and methods must be static.
4. must extend the enclosing class.

40.

```
{
public static void main(String [] args)
{
PassA p = new PassA();
p.start();
}

void start()
{
long [] a1 = {3,4,5};
long [] a2 = fix(a1);
System.out.print(a1 [0] + a1 [1] + a1 [2] + " ");
System.out.println(a2[0] + a2[1] + a2[2]);
}
long [] fix(long [] a3)
{
a3[1] = 7;
return a3;
}
}
```

1. 1 2 1 5
2. 1 5 1 5
3. 3 4 5 3 7 5
4. 3 7 5 3 7 5

42.

Which of the following statements is true?

1. A static method cannot be synchronized
2. Non-synchronized method can become synchronized if it's being called from a synchronized method
3. When a thread call wait() from a synchronized method, it releases the lock
4. Primitive variables can be protected from concurrent access using synchronized block.

43.

What is the result of the following code?

```
import java.util.*;
```

```
enum Animals
```

```
{
```

```
DOG("woof"), CAT("meow"), FISH("burbIe");
```

```
String sound;
```

```
Animals(String s) { sound = s; }
```

```
}
```

```
public class test11 {
```

```
static Animals a;
```

```
public static void main(String [] args) {
```

```
System.out.println(a.DOG.sound + " " +  
a.FISH.sound);
```

```
}
```

```
}
```

1. Multiple compilation errors
2. woofburbIe
3. Compilation fails due to an error on line 3

47.

What is coercion?

1. A: Coercion is a phenomenon of promoting sub class to super class
2. B: Coercion is a phenomenon of casting super class to sub class
3. C: Coercion is an changing the data types according to cast operator
4. D: Coercion is the conversion between different data types done while compiling

49.

Which is the new method introduced in java 8 to iterate over a collection?

1. for (String i : StringList)
2. foreach (String i : StringList)
3. StringList.forEach()
4. List.for()

53.

Which of these is not a correct statement?

1. Every class containing abstract method must be declared abstract
2. Abstract class defines only the structure of the class not its implementation
3. Abstract class can be initiated by new operator
4. Abstract class can be inherited

54.

Which of the following statements are incorrect?

1. Variables declared as final occupy memory
2. final variable must be initialized at the time of declaration
3. Arrays in java are implemented as an object
4. All arrays contain an attribute-length which contains the number of elements stored in the array

61.

Choose options, which are true.

1. A thread is in DEAD/TERMINATED state when it has completed its execution. Once a thread enters dead state, it cannot be made active again.
2. A thread is in BLOCKED/WAITING/SLEEPING state when it is not eligible to be run by the Scheduler. Thread is alive but is waiting for something.
3. A thread is RUNNING state when it's the one that is currently, what else to say, Running.
4. all of these

62.

What will be the Output of the below code?

```
public class A {  
    public static void main(String[] args)  
    {  
        if (true)  
            break;  
        System.out.println("Hello");  
    }  
}
```

1. Nothing
2. Compile time error
3. Runtime error
4. Hello

65.

What will be the output of the following program?

```
public class Test {  
    public static void main(String[] args)  
    {  
        for (int i = 0; i < 10; i++)  
            int x = 10;  
    }  
}
```

1. No Output
2. 10
3. Compile Time Error
4. Runtime Error

67.

Which of the following is a correct method to convert the array of strings into a list?

1. Arrays class toList() method
2. Arrays class doList() method
3. Arrays class asList() method
4. none

1.

What must reside in the main memory under all situations in a resident - OS computer?

1. Linker
2. Loader
3. Assembler
4. Compiler

3.

What type of data would your name be?

1. Real
2. Boolean
3. Integer
4. **String**

4.

What term is used to describe a variable being given a value?

1. Equals
2. **Assignment**
3. Input
4. Algorithm

5.

What is meant by the term iteration?

1. A list of instructions for completing a task
2. **Repeating a block of code**
3. Giving a value to a variable
4. Breaking a problem down into simple parts

6.

Java code to create a non-element array of student marks with the size of 20.

1. double mark;
2. double [20] mark = new double;
3. double [] mark = new mark [20];
4. **double [] mark = new double [20];**

8.

Is String a primitive data type?

1. Yes
2. **No**
3. Both

9.

Which data type gets returned from length() method in String class?

1. double
2. String
3. **int**
4. number

10.

String txt = "ABCDEFGHJKLMNOPQRSTUVWXYZ";

What is the correct way to find the length of "txt" string?

1. int len = length(txt);
2. float len = txt.length();
3. **int len = txt.length();**
4. double len = length(txt);

11.

Which is correct method to convert String into uppercase

1. changeUpperCase()
2. convertUpperCase()
3. toUpper()
4. toUpperCase()

13.

Choose most appropriate purpose of trim() method in String?

1. to remove white spaces
2. to get a substring of the string
3. to cut String at desired index
4. to remove extra white spaces from start and end of String

14.

_____ does the job of allocating a process to the processor.

1. Long term scheduler
2. Short term scheduler
3. Medium term scheduler
4. Dispatcher

15.

Round robin scheduling is essentially the preemptive version of _____.

1. FIFO
2. Shortest job first
3. Shortes remaining
4. Longest time first

16.

Disk scheduling includes deciding:

1. which should be accessed next
2. order in which disk access requests must be serviced
3. the physical location of the file
4. the logical location of the file

17.

Preemptive Shortest Job First scheduling is sometimes called:

1. Fast SJF scheduling
2. EDF scheduling – Earliest Deadline First
3. HRRN scheduling – Highest Response Ratio Next
4. SRTN scheduling – Shortest Remaining Time Next

19.

Which of the following is best answer, for a General Purpose OS (GPOS):

1. Core components of the KERNEL of a GPOS manage hardware resources
2. Non-core components of a GPOS manage hardware resources
3. Typically, application developers interact, with KERNEL of a GPOS
4. None of the above

20.

A General Purpose OS (GPOS) design uses, which of the following:

1. High-level applications/frame-works are compiled and linked, with the CORE OS components
2. High-level applications/frame-works are compiled and linked, with the system libraries
3. High-level applications/frame-works are compiled and linked, with system utilities
4. None of the above

23.

In FIFO page replacement algorithm, when a page must be replaced

1. oldest page is chosen
2. newest page is chosen
3. random page is chosen
4. none of the mentioned

26.

system libraries are linked to :

1. device drivers
2. applications
3. kernel
4. none of the above

28.

The Lines of Code (LOC) size do not include

1. Compiler Directives
2. Declarations
3. Comments
4. all of the above

29.

What is the output of the following code?

```
>> enum Season { WINTER, SPRING, SUMMER, FALL};  
>> System.out.println(Season.WINTER.ordinal());
```

1. 0
2. 1
3. 2
4. 3

30.

What is the output of this program?

```
1. import java.io.*;
2. class files
3. {
4. Public static void main(String args[])
5. {
6. File obj =newFile("/java/system");
7. System.out.print(obj.canWrite());
8. System.out.print(" "+obj.canRead());
9. }
10. }
```

1. true false
2. false true
3. true true
4. false false

34.

The_____ interface should be implemented by any class whose instances are intended to be executed by a thread.

1. Serializable
2. Comparable
3. Collection
4. Runnable

35.

Classes that do not implement _____interface will not have any of their State serializeor deserialized.

1. List
2. Single Thread Model
3. Serializable
4. Comparable

36.

Which of the following can be referenced by this variable?

1. The instance variables of a class only
2. The methods of a class only
3. The instance variables and methods of a class
4. The class variable

38.

Which collection class allows you to grow or shrink its size and provides indexed access to its elements, but whose methods are not synchronized?

1. java.util.HashSet
2. java.util.LinkedHashSet
3. java.util.List
4. java.util.ArrayList

39.

Which of the following methods cause the string object referenced by s to be changed?

1. s.concat()
2. s.touppercase()
3. s.repIace()
4. None ofthe above

41.

Consider the following:

```
class X implements Runnable
{
public static void main(String args[])
{
/* Missing code? */
}
public void run() { }
}
```

Which of the following lines of code is suitable to start a thread?

1. Thread t= new Thread(X);
2. Thread t= new Thread(X); t.start();
3. X run = new X(); Thread t= new Thread(run); t.start();
4. Thread t= new Thread(); x.run();

44.

Inner class gets access to

1. outer class variables
2. outer class variables only if we created outer class object in inner class.
3. inner class variables only
4. none ofthe above.

45.

1. public class TestOne {
 2. public static void main (String[] args) {
 3. Thread.sleep(3000);
 4. System.out.println("sleep");
 5. }
 6. }
1. A: No error, prints sleep
 2. B:Compilation error
 3. C:Runtime Error
 4. D:No error & no output

46.

Which of the following are methods of the Runnable interface?

1. run
2. start
3. yield
4. stop

48.

Which of the following is not a wrapper class?

1. String
2. Integer
3. Boolean
4. Character

50.

The concept of multiple inheritances is implemented in Java by:

I. Extending two or more classes.

II. Extending one class and implementing one or more interfaces.

III. Implementing two or more interfaces

1. Only (II)
2. (I) and (II)
3. (II) and (III)
4. Only (I)

51.

What is the process of defining a method in a subclass having same name & type signature as a method in its superclass?

1. Method overloading
2. Method overriding
3. Method hiding
4. none of the above

52.

Which of these method can set the out stream to OutputStream?

1. setStream()
2. setostream()
3. setOut()
4. streamtoOstream()

55.

What is the value returned by function compareTo() if the invoking string is greater than the string compared?

1. Zero
2. value less than zero
3. value greater than zero
4. none of the mentioned

56.

Which one of the following is a class loader?

1. bootstrap
2. compiler
3. heap
4. interpreter

57.

Where is String Pool stored?

1. Java Stack
2. Java Heap
3. Permanent Generation
4. Metaspace

58.

Which of these exception is thrown by close() and read() methods?

1. IOException
2. FileNotFoundException
3. FileNotFoundException
4. FileInputOutputException

59.

Which of these method of Thread class is used to find out the priority given to a thread?

1. get()
2. ThreadPriority()
3. getPriority()
4. getThreadPriority()

60.

Which of these class contains the methods used to write in a file

1. FileStream
2. FileInputStream
3. BufferedOutputStream
4. FileBufferStream

63.

Which of these class contains the methods print() &println()?

1. System
2. System.out
3. BufferedOutputStream
4. PrintStream

64.

Why are generics used?

1. Generics make code more fast
2. Generics make code more optimized and readable
3. Generics add stability to your code by making more of your bugs detectable at compile time
4. Generics add stability to your code by making more of your bugs detectable at a runtime

66.

Which of the following is a correct difference between the Iterator and ListIterator?

1. Iterator traverses the elements only in forward direction whereas the ListIterator traverses back and forth.
2. Iterator traverses back and forth while the ListIterator traverses the elements in forward direction.
3. Iterator traverses the elements in backward direction while the ListIterator moves in forward direction.
4. Iterator used to iterate array while ListIterator used to iterate ArrayList & LinkedList

68.

Which of the following is a correct difference between ArrayList and LinkedList?

1. ArrayList uses a doubly linked list whereas the LinkedList uses a dynamic array.
2. ArrayList uses a dynamic array whereas the LinkedList uses doubly linked list.
3. ArrayList uses a single linked list whereas the LinkedList uses dynamic array
4. Both ArrayList and LinkedList are internally using doubly linked list