Statements, Scope

uestions

1. Which selection statements test only for equality?
(a) if
(b) switch
(c) if & switch
(d) none of the mentioned

2. Which of the selection statements are used in Java?
(a) if() (b) for()
(c) continue (d) break

3. Which of the following loops will execute the body of loop even when condition controlling the loop is false?
(a) do-while
(b) while
(c) for
(d) none of the mentioned

4. Jump statements that can skip processing the remainder of the code in its body for a particular iteration are _____.
(a) break (b) return
(c) exit (d) continue

5. Choose the statement which 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

6. IF-ELSE statement is also called ___.
(a) Branching statement
(b) Control statement
(c) Block statements
(d) ALL

7. As input before branching IF or ELSE IF statement accepts ___.
(a) boolean (b) int
(c) float (d) char

8. IF statement is also called a ___ statement in Java.
(a) boolean (b) conditional
(c) iterative (d) optional

9. IF-ELSE statements are similar to ___ in java.
(a) C style
(b) C++ Style
(c) Both C and C++ style
(d) None

10. State TRUE or FALSE. Every IF statement should be followed by an ELSE or ELSE-IF statement.
(a) TRUE (b) FALSE

11. ELSE statement should be preceded by ___ statement in Java.
(a) IF (b) ELSE IF
(c) IF or ELSE IF (d) None

12. State TRUE or FALSE. A Single-Line comment is allowed in between if () and Left Brace ({).
(a) FALSE (b) TRUE

13. State TRUE or FALSE. IF statement code should be defined in between two Braces.
(a) FALSE (b) TRUE

14. State TRUE or FALSE. Code which is inside an ELSE statement should be surrounded by Braces.
(a) FALSE (b) TRUE

15. State TRUE or FALSE An ELSE or ELSE-IF statement can not exist alone without IF statement in Java.
(a) FALSE (b) TRUE

16. In condition of IF statement assess to boolean only if, the expression contains?
(a) logical operators
(b) relational operators
(c) boolean operands
(d) All

17. When the condition of an IF-statement is false, which statement will be true .

(a) IF block is executed.

(b) ELSE block is executed.

(c) Both IF and ELSE blocks are skipped.

(d) Both IF and ELSE blocks are executed.

18. Maximum lines of code that can be written inside a Java style IF, ELSE or IF-ELSE block.

(a) 32 (b) 64

(c) 512 (d) None

19. How is an IF-ELSE statement better than a SWITCH statement.

(a) Checking for More-than condition

(b) Checking for Less-than condition

(c) Checking for Ranges

(d) All

20. Maximum number of ELSE-IF statements that can present in between starting IF and ending ELSE statements can be _____.

(a) 32 (b) 64

(c) 128 (d) None

21. Choose the correct output of Java program with IF statement:

```
if(1)
{
    System.out.println("OK");
}
```

(a) OK (b) No output

(c) Compiler error (d) None

22. Choose the correct output of the Java program with IF-ELSE statements:

```
if(TRUE)
    System.out.println("GO");
else
    System.out.println("STOP");
```

(a) GO (b) STOP

(c) Compiler error (d) None

23. Choose the correct output of the Java program:

```
int a=10;
if(a==9)
    System.out.println("OK ");
    System.out.println("MASTER");
else
    System.out.println("BYE");
```

(a) OK MASTER (b) BYE

(c) Compiler error (d) None

24. Choose the correct output of the Java program.

```
if(3>1)
{
  4;
}
```

(a) 0 (b) 4

(c) Compiler error (d) None

25. Choose the correct output of the Java program with IF statement:

```
if(true)
{
    break;
    System.out.println("ELEPHANT");
}
```

(a) No output (b) ELEPHANT

(c) Compiler error (d) None

26. A SWITCH case statement is a ___ control statement in Java.

(a) Iteration (b) Loop

(c) Selection (d) Jump

27. The alternative to SWITCH in Java language:

(a) break, continue (b) for, while

(c) if, else (d) goto, exit

28. The keywords used to implement a SWITCH case in Java language.

(a) switch, case (b) default

(c) break (d) All

29. The parts of a SWITCH in java includes:

(a) switch input condition

(b) case constants

(c) case statements

(d) All

30. _____ type of data as input is accepted by a SWITCH statement .

(a) byte (b) short

(c) int (d) All

31. In Iterator, hasMoreElements() method of Enumeration has been changed to:

(a) hasNextElement() (b) isNext()

(c) hasNext() (d) name remains same

32. What is used by TreeSet internally to store elements?

(a) HashMap (b) LinkedHashMap

(c) TreeMap

33. Which statement is an iteration statement?

(a) switch (b) if-else

(c) if (d) do-while

Fill in the blanks

34. _____ data type is accepted by a switch statement in Java .

(a) enum (b) String

(c) enum and String (d) long

35. _____ version of Java supports String as the input data type of a SWITCH.

(a) JDK 5 (b) JDK 6

(c) JDK 7 (d) JDK 8

36. _____ is the output of Java program with Switch.

```
int a=10;
switch(a)
{
case 10: System.out.println("TEN");
}
```

(a) No output

(b) TEN

(c) Compiler error as there is no BREAK.

(d) None

37. _____ is the output of the Java program .

```
int b=20;
switch(b)
{
default: System.out.println("LION");
}
```

(a) No output

(b) LION

(c) Compiler error as there are no CASE statements.

(d) None

38. _____ is the output of the Java program .

```
String animal = "GOAT";
switch(animal)
{
    break: System.out.println("DOMESTIC");
}
```

(a) No output (b) GOAT

(c) DOMESTIC (d) Compiler error

39. A SWITCH fall through occurs only in the absence of ___ in Java.

(a) case keyword (b) break keyword

(c) default keyword (d) None

40. The main purpose to design a SWITCH logic with a fall-through is _____ in Java.

(a) to define ranges

(b) to define additions

(c) to improve switch block performance

(d) None

41. _____ for loop declaration is not valid.

(a) for (int i = 99; i >= 0; i / 9)

(b) for (int i = 7; i <= 77; i += 7)

(c) for (int i = 20; i >= 2; - -i)

(d) for (int i = 2; i <= 20; i = 2* i)

42. _____ is not a flow control statement in Java.

(a) break (b) continue

(c) exit() (d) return

43. _____ is acceptable types for x

```
switch(x)
{
    default:
        System.out.println("Hello");
}
```

(a) short (b) char

(c) long (d) float

Match the following

44. Match the columns:

Group A	Group B
1. Loop statement	(i) It has empty initialization
2. Empty loop in Java	(ii) Which is executed repeatedly clause
3. nested loop	(iii) To terminate current iteration
4. Functionality of break statement	(iv) A Loop within a Loop

(a) 1-(ii), 2-(i), 3-(iv), 4-(iii)

(b) 1-(i), 2-(ii), 3-(iv), 4-(iii)

(c) 1-(ii), 2-(i), 3-(iii), 4-(iv)

(d) 1-(ii), 2-(iv), 3-(i), 4-(iii)

45. Match the columns:

Group A	Group B
1. Functionality of continue statement	(i) do while loop runs once even conditional clause is false

2.	Difference between do while loop and while loop in Java	(ii)	To continue current iteration
3.	Switch statement	(iii)	Used inside the switch to terminate a statement sequence.
4.	Break statement	(iv)	Dispatch execution to different parts of your code based on the value of an expression.

(a) 1-(ii), 2-(i), 3-(iv), 4-(iii)

(b) 1-(i), 2-(ii), 3-(iv), 4-(iii)

(c) 1-(ii), 2-(i), 3-(iii), 4-(iv)

(d) 1-(ii), 2-(iv), 3-(i), 4-(iii)

46. Match the columns:

Group A		Group B
1. Switch statement	(i)	switch can only test for equality
2. Conditional statement	(ii)	provides a better alternative than a large series of if-else-if statements.
3. A continue statement	(iii)	in the same switch can have identical values
4. No two case constants	(iv)	control to be transferred directly to the conditional expression

(a) 1-(ii), 2-(i), 3-(iv), 4-(iii)

(b) 1-(i), 2-(ii), 3-(iv), 4-(iii)

(c) 1-(ii), 2-(i), 3-(iii), 4-(iv)

(d) 1-(ii), 2-(iv), 3-(i), 4-(iii)

47. Match the columns:

Group A		Group B
1. A switch statement	(i)	Cannot be reference outside the loop.
2. Variable declared inside the for loop control	(ii)	usually more efficient than a set of nested ifs.
3. Control expressions for an if statement	(iii)	you can force immediate termination of the loop
4. Break statement	(iv)	Boolean expression

(a) 1-(ii), 2-(i), 3-(iv), 4-(iii)

(b) 1-(i), 2-(ii), 3-(iv), 4-(iii)

(c) 1-(ii), 2-(ii), 3-(iii), 4-(iv)

(d) 1-(ii), 2-(iv), 3-(i), 4-(iii)

48. Match the columns:

Group A		Group B
1. do-while	(i)	select among a large group of values
2. Switch statement	(ii)	Useful when you process a menu selection.
3. Default is an optional case	(iii)	More than one else clause.
4. One if can have	(iv)	Value of the expression does not match with any of the case values.

(a) 1-(ii), 2-(i), 3-(iv), 4-(iii)

(b) 1-(i), 2-(ii), 3-(iv), 4-(iii)

(c) 1-(ii), 2-(i), 3-(iii), 4-(iv)

(d) 1-(ii), 2-(iv), 3-(i), 4-(iii)

Programming based questions

49. Choose 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

50. Will the given Java code-snippet be compiled?

```
switch(45)
{
    case 10: ;
}
```

(a) NO (b) YES

51. Choose the correct output for code snippet if variable a=10?

```
if(a<=0)
{
    if(a==0)
    {
        System.out.println("1 ");
    }
    else
    {
        System.out.println("2 ");
    }
}
System.out.println("3 ");
```

(a) 1 2 (b) 2 3
(c) 1 3 (d) 3

52. How many times will the loop be executed?

```
ch = 'b';
while(ch &gt;= 'a' && ch &lt;= 'z')
```

(a) 0 (b) 25
(c) 26 (d) 1

53. Choose the correct output of the Code.

```
void main()
{
    static a,b;
    while(a > b++)
}
```

(a) a=0 b=0
(b) a=0 b=0
(c) a=1 b=1
(d) none of the mentioned

54. Which of the following loops will execute the body of loop even when condition controlling the loop is initially false?

(a) do-while
(b) while
(c) for
(d) None of the mentioned

55. Identify how many times the loop will run?

```
for(digit = 0;digit &lt; 9; digit++)
{
    digit = digit *2;
    digit--;
}
```

(a) Infinite (b) 9
(c) 0 (d) 4

56. Concerning the program code given below, answer the questions that follow:

```
//It is a program of odd and even numbers.
public class IfElse
{
public static void main(String[] args)
    {
    //defining a variable
    int number=13;
    //Check if the number is divisible by 2 or not
    if(number%2==0){
        System.out.println("even number");
    }
    else
    {
        System.out.println("odd number");
    }
}
```

(a) What will be the output?
   (i) odd number
   (ii) even number
   (iii) whole number
   (iv) natural number

(b) What is the name of the class?
   (i) System.out.println
   (ii) static void main()
   (iii) public
   (iv) class IfElse

57. Concerning the program code given below, answer the questions that follow:

```
public class LeapYear {
public static void main(String[] args) {
    int year=2020;
    if(((year % 4 ==0) && (year % 100 !=0)) || (year
    % 400==0)){
        System.out.println("LEAP YEAR");
    }
    else{
        System.out.println("COMMON YEAR");
    }
}
}
```

(a) What will be the output?

(i) LEAP YEAR
(ii) COMMON YEAR
(iii) WHOLE number
(iv) NATURAL number

(b) What this program is doing?

(i) checking the number is odd or even
(ii) checking the year is leap year or common year
(iii) checking number is divisible by 4 or 400
(iv) giving remainder after dividing by 4

Answers

Multiple choice questions

1. (b) switch

Explanation: Use the switch statement to select one of many code blocks to be executed.

Syntax

```
switch(expression) {
case x:
    // code block
break;
case y:
    // code block
break;
default:
    // code block
}
```

2. (a) if()

Explanation: Use the if statement to specify a block of Java code to be executed if a condition is true.

3. (a) do-while

Explanation: The do/while loop is a variant of the while loop. This loop will execute the code block once, before checking if the condition is true, then it will repeat the loop as long as the condition is true.

4. (d) continue

Explanation: The continue statement breaks one iteration (in the loop), if a specified condition occurs, and continues with the next iteration in the loop.

5. (b) two case constants in the same switch can have identical values

6. (d) ALL

7. (a) boolean

8. (b) conditional

Explanation: Use else if to specify a new condition to test, if the first condition is false.

9. (c) Both C and C++ style

10. (b) FALSE

11. (c) IF or ELSE IF

12. (b) TRUE

13. (a) FALSE

14. (b) TRUE

15. (b) TRUE

16. (d) All

17. (d) Both IF and ELSE blocks are executed.

18. (d) None

19. (d) All

20. (c) 128

21. (c) Compiler error

Explanation: Compile Time Errors are those errors which prevent the code from running because of an incorrect syntax such as a missing semicolon at the end of a statement or a missing bracket, class not found, etc. These kind of errors are easy to spot and rectify because the java compiler finds them for you.

22. (c) Compiler error

Explanation: Compile Time Errors are those errors which prevent the code from running because of an incorrect syntax such as a missing semicolon at the end of a statement or a missing bracket, class not found, etc.These kind of errors are easy to spot and rectify because the java compiler finds them for you.

23. (c) Compiler error

24. (c) Compiler error

25. (c) Compiler error

26. (c) Selection

Explanation: Selection statements allow you to control the flow of program execution, on the basis of the outcome of an expression or state of a variable, known during runtime. Selection statements can be divided into the following categories: The if and if-else statements. The if-else statements.

27. (c) if, else

28. (d) All

29. (d) All

30. (d) All

31. (c) hasNext()

32. (c) TreeMap

33. (d) do-while

Fill in the blanks

34. (c) enum and String

35. (c) JDK 7

36. (b) TEN

37. (b) LION

38. (d) Compiler error

39. (b) break keyword

40. (a) To define ranges.

41. (a) for (int i = 99; i >= 0; i / 9)

42. (c) exit()

43. (a) short

Match the following

44. (a) 1-(ii), 2-(i), 3-(iv), 4-(iii)

45. (a) 1-(ii), 2-(i), 3-(iv), 4-(iii)

46. (a) 1-(ii), 2-(i), 3-(iv), 4-(iii)

47. (a) 1-(ii), 2-(i), 3-(iv), 4-(iii)

48. (a) 1-(ii), 2-(i), 3-(iv), 4-(iii)

Programming based questions

49. (d) byte and char

50. (b) YES

51. (d) 3

52. (b) 25

53. (a) a=0 b=0

54. (a) do-while

55. (a) Infinite

56. (a) (i) odd number

(b) (iv) class IfElse

57. (a) (i) LEAP YEAR

(b) (ii) checking the year is leap year or common year