



PUNE VIDYARTHI GRIHA'S
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Question Bank

Class: S.Y.B. Sc.CS

Semester: III

Subject: Core Java

Unit I

1. What is the range of short data type in Java?
 - a) -128 to 127
 - b) -32768 to 32767
 - c) -2147483648 to 2147483647
 - d) None of the mentioned

2. Which of the following are legal lines of Java code?
 1. int w = (int)888.8;
 2. byte x = (byte)100L;
 3. long y = (byte)100;
 4. byte z = (byte)100L;
 - a) 1 and 2
 - b) 2 and 3
 - c) 3 and 4
 - d) All statements are correct

3. How to convert Date object to String?
 - a) SimpleDateFormat sdf = new SimpleDateFormat("yyyy-mm-dd");
sdf.parse(new Date());
 - b) SimpleDateFormat sdf = new SimpleDateFormat("yyyy-mm-dd");
sdf.format(new Date());
 - c) SimpleDateFormat sdf = new SimpleDateFormat("yyyy-mm-dd");
new Date().parse();
 - d) SimpleDateFormat sdf = new SimpleDateFormat("yyyy-mm-dd");
new Date().format();

4. How is Date stored in database?

- a) java.sql.Date
- b) java.util.Date
- c) java.sql.DateTime
- d) java.util.DateTime

5. Which of these can be returned by the operator &?

- a) Integer
- b) Boolean
- c) Character
- d) Integer or Boolean

6. Which of these can not be used for a variable name in Java?

- a) identifier
- b) keyword
- c) identifier & keyword
- d) none of the mentioned

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

```
class evaluate
{
    public static void main(String args[])
    {
        int a[] = {1,2,3,4,5};
        int d[] = a;
        int sum = 0;
        for (int j = 0; j < 3; ++j)
            sum += (a[j] * d[j + 1]) + (a[j + 1] * d[j]);
        System.out.println(sum);
    }
}
```

- a) 38
- b) 39
- c) 40
- d) 41

8. Which of these statements are incorrect?

- a) Assignment operators are more efficiently implemented by Java run-time system than their equivalent long forms
- b) Assignment operators run faster than their equivalent long forms
- c) Assignment operators can be used only with numeric and character data type
- d) None of the mentioned

9. Which of these is returned by “greater than”, “less than” and “equal to” operators?

- a) Integers
- b) Floating – point numbers
- c) Boolean
- d) None of the mentioned

10. Which of the following operators can operate on a boolean variable?

- 1. &&
- 2. ==
- 3. ?:
- 4. +=

- a) 3 & 2
- b) 1 & 4
- c) 1, 2 & 4
- d) 1, 2 & 3

11. Which of these statements is correct?

- a) true and false are numeric values 1 and 0
- b) true and false are numeric values 0 and 1
- c) true is any non-zero value and false is 0
- d) true and false are non-numeric values

12. What will be the output of the following Java code?

```
class bool_operator
{
    public static void main(String args[])
    {
        boolean a = true;
        boolean b = !true;
        boolean c = a | b;
        boolean d = a & b;
        boolean e = d ? b : c;
        System.out.println(d + " " + e);
    }
}
```

- a) false false
- b) true true
- c) true false
- d) false true

13. Which of these have highest precedence?

- a) ()
- b) ++
- c) *
- d) >>

14. What should be expression1 evaluate to in using ternary operator as in this line?

expression1 ? expression2 : expression3

- a) Integer
- b) Floating – point numbers
- c) Boolean
- d) None of the mentioned

15. What is the order of precedence (highest to lowest) of following operators?

1. &

2. ^

3. ?:

- a) 1 -> 2 -> 3
- b) 2 -> 1 -> 3
- c) 3 -> 2 -> 1
- d) 2 -> 3 -> 1

16. Which of these statements are incorrect?

- a) Equal to operator has least precedence
- b) Brackets () have highest precedence
- c) Division operator, /, has higher precedence than multiplication operator
- d) Addition operator, +, and subtraction operator have equal precedence

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

```
class operators
{
    public static void main(String args[])
    {
        int x = 8;
        System.out.println(++x * 3 + " " + x);
    }
}
```

- a) 24 8
- b) 24 9
- c) 27 8
- d) 27 9

18. Which of the following can be operands of arithmetic operators?

- a) Numeric
- b) Boolean
- c) Characters
- d) Both Numeric & Characters

19. Which of these is not a bitwise operator?

- a) &
- b) &=
- c) |=
- d) <=

20. Which operator is used to invert all the digits in a binary representation of a number?

- a) ~
- b) <<<
- c) >>>
- d) ^

21. Which of these statements are incorrect?

- a) The left shift operator, <<, shifts all of the bits in a value to the left specified number of times
- b) The right shift operator, >>, shifts all of the bits in a value to the right specified number of times
- c) The left shift operator can be used as an alternative to multiplying by 2
- d) The right shift operator automatically fills the higher order bits with 0

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

```
class rightshift_operator
{
    public static void main(String args[])
    {
        int x;
        x = 10;
        x = x >> 1;
        System.out.println(x);
    }
}
```

- a) 10
- b) 5
- c) 2
- d) 20

23. Which of these coding types is used for data type characters in Java?

- a) ASCII

- b) ISO-LATIN-1
- c) UNICODE
- d) None of the mentioned

24. Which of these occupy first 0 to 127 in Unicode character set used for characters in Java?

- a) ASCII
- b) ISO-LATIN-1
- c) None of the mentioned
- d) ASCII and ISO-LATIN1

25. Which one is a valid declaration of a boolean?

- a) boolean b1 = 1;
- b) boolean b2 = 'false';
- c) boolean b3 = false;
- d) boolean b4 = 'true'

26 . Which of these selection statements test only for equality?

- a) if
- b) switch
- c) if & switch
- d) none of the mentioned

27 . Which of these are selection statements in Java?

- a) if()
- b) for()
- c) continue
- d) break

28. 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

28. Which of these jump statements can skip processing the remainder of the code in its body for a particular iteration?

- a) break
- b) return
- c) exit
- d) continue

29. Which of this statement is incorrect?

- a) switch statement is more efficient than a set of nested ifs

- b) two case constants in the same switch can have identical values
- c) switch statement can only test for equality, whereas if statement can evaluate any type of boolean expression
- d) it is possible to create a nested switch statements

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

```
class selection_statements
{
    public static void main(String args[])
    {
        int var1 = 5;
        int var2 = 6;
        if ((var2 = 1) == var1)
            System.out.print(var2);
        else
            System.out.print(++var2);
    }
}
```

- a) 1
- b) 2
- c) 3
- d) 4

31. What is true about a break?

- a) Break stops the execution of entire program
- b) Break halts the execution and forces the control out of the loop
- c) Break forces the control out of the loop and starts the execution of next iteration
- d) Break halts the execution of the loop for certain time frame

32. What is true about do statement?

- a) do statement executes the code of a loop at least once
- b) do statement does not get execute if condition is not matched in the first iteration
- c) do statement checks the condition at the beginning of the loop
- d) do statement executes the code more than once always

33. Which of the following is used with the switch statement?

- a) Continue
- b) Exit
- c) break
- d) do

34. What is the valid data type for variable “a” to print “Hello World”?

```
switch(a)
{
    System.out.println("Hello World");
}
```

- a) int and float
- b) byte and short
- c) char and long
- d) byte and char

35. Which of the following is not a decision making statement?

- a) if
- b) if-else
- c) switch
- d) do-while

36. Which of the following is not a valid jump statement?

- a) break
- b) goto
- c) continue
- d) return

37. From where break statement causes an exit?

- a) Only from innermost loop
- b) Terminates a program
- c) Only from innermost switch
- d) From innermost loops or switches

38. Which of the following is not a valid flow control statement?

- a) exit()
- b) break
- c) continue
- d) return

39. What is stored in the object obj in following lines of Java code?

```
    box obj;
```

- a) Memory address of allocated memory of object
- b) NULL
- c) Any arbitrary pointer
- d) Garbage

40. Which of these keywords is used to make a class?

- a) class

- b) struct
- c) int
- d) none of the mentioned

41. Which of the following is a valid declaration of an object of class Box?

- a) Box obj = new Box();
- b) Box obj = new Box;
- c) obj = new Box();
- d) new Box obj;

42. Which of these operators is used to allocate memory for an object?

- a) malloc
- b) alloc
- c) new
- d) give

43. Which of these statement is incorrect?

- a) Every class must contain a main() method
- b) Applets do not require a main() method at all
- c) There can be only one main() method in a program
- d) main() method must be made public

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

```
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

45. Which of the following statements is correct?

- a) Public method is accessible to all other classes in the hierarchy
- b) Public method is accessible only to subclasses of its parent class

- c) Public method can only be called by object of its class
- d) Public method can be accessed by calling object of the public class

46. What is the process of defining more than one method in a class differentiated by method signature?

- a) Function overriding
- b) Function overloading
- c) Function doubling
- d) None of the mentioned

47. Which of the following is a method having same name as that of its class?

- a) finalize
- b) delete
- c) class
- d) constructor

Unit II

1. Which of this keyword must be used to inherit a class?

- a) super
- b) this
- c) extent
- d) extends

2. A class member declared protected becomes a member of subclass of which type?

- a) public member
- b) private member
- c) protected member
- d) static member

3. Which of these is correct way of inheriting class A by class B?

- a) class B + class A { }
- b) class B inherits class A { }
- c) class B extends A { }
- d) class B extends class A { }

4. What is not type of inheritance?

- a) Single inheritance
- b) Double inheritance
- c) Hierarchical inheritance
- d) Multiple inheritance

5. Using which of the following, multiple inheritance in Java can be implemented?

- a) Interfaces
- b) Multithreading
- c) Protected methods
- d) Private methods

6. All classes in Java are inherited from which class?

- a) java.lang.class
- b) java.class.inherited
- c) java.class.object
- d) java.lang.Object

7. In order to restrict a variable of a class from inheriting to subclass, how variable should be declared?

- a) Protected
- b) Private
- c) Public
- d) Static

8. If super class and subclass have same variable name, which keyword should be used to use super class?

- a) super
- b) this
- c) upper
- d) classname

9. Static members are not inherited to subclass.

- a) True
- b) False

10. Which of the following is used for implementing inheritance through an interface?

- a) inherited
- b) using
- c) extends
- d) implements

11. Which of the following is used for implementing inheritance through class?

- a) inherited
- b) using
- c) extends
- d) implements

12. What would be the result if a class extends two interfaces and both have a method with same name and signature? Lets assume that the class is not implementing that method.

- a) Runtime error
- b) Compile time error
- c) Code runs successfully
- d) First called method is executed successfully

13. Does Java support multiple level inheritance?

- a) True
- b) False

14. Which of these keywords is used to define packages in Java?

- a) pkg
- b) Pkg
- c) package
- d) Package

15. Which of these is a mechanism for naming and visibility control of a class and its content?

- a) Object
- b) Packages
- c) Interfaces
- d) None of the Mentioned.

16. Which of these keywords is used to define interfaces in Java?

- a) interface
- b) Interface
- c) intf
- d) Intf

17. Which of these access specifiers can be used for an interface?

- a) Public
- b) Protected
- c) private
- d) All of the mentioned

18. Which of these keywords is used by a class to use an interface defined previously?

- a) import
- b) Import
- c) implements
- d) Implements

19. Which of this access specifies can be used for a class so that its members can be accessed by a different class in the same package?

- a) Public
- b) Protected
- c) No Modifier
- d) All of the mentioned

20. Which of the following is the correct way of implementing an interface salary by class manager?

- a) class manager extends salary { }
- b) class manager implements salary { }
- c) class manager imports salary { }
- d) none of the mentioned

21. Which of the following is the correct way of importing an entire package 'pkg'?

- a) import pkg.
- b) Import pkg.
- c) import pkg.*
- d) Import pkg.*

22. Which of the following is an incorrect statement about packages?

- a) Interfaces specifies what class must do but not how it does
- b) Interfaces are specified public if they are to be accessed by any code in the program
- c) All variables in interface are implicitly final and static
- d) All variables are static and methods are public if interface is defined public

23. Which of the following is an incorrect statement about packages?

- a) Package defines a namespace in which classes are stored
- b) A package can contain other package within it
- c) Java uses file system directories to store packages
- d) A package can be renamed without renaming the directory in which the classes are stored

24. Which of the following package stores all the standard java classes?

- a) lang
- b) java
- c) util
- d) java.packages

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

```
package pkg;
class output
{
    public static void main(String args[])
    {
```

```
        StringBuffer s1 = new StringBuffer("Hello");
        s1.setCharAt(1, x);
        System.out.println(s1);
    }
}
```

- a) xello
- b) xxxxx
- c) Hxllo
- d) Hexlo

26. Where is an array stored in memory?

- a) heap space
- b) stack space
- c) heap space and stack space
- d) first generation memory

27. An array elements are always stored in _____ memory locations.

- a) Sequential
- b) Random
- c) Sequential and Random
- d) Binary search

28. What will be the output of the following Java code snippet?

```
Object[] names = new String[3];
names[0] = new Integer(0);
```

- a) ArrayIndexOutOfBoundsException
- b) ArrayStoreException
- c) Compilation Error
- d) Code runs successfully

29. Which of the following is a super class of all exception type classes?

- a) Catchable
- b) RuntimeExceptions
- c) String
- d) Throwable

30. Which of these is an incorrect Statement?

- a) It is necessary to use new operator to initialize an array
- b) Array can be initialized using comma separated expressions surrounded by curly braces
- c) Array can be initialized when they are declared
- d) None of the mentioned

31. Which of these is necessary to specify at time of array initialization?

- a) Row
- b) Column
- c) Both Row and Column
- d) None of the mentioned

32. Which of the following keywords is used for throwing exception manually?

- a) finally
- b) try
- c) throw
- d) catch

33. What will be the output of the following Java code?

```
class evaluate
{
    public static void main(String args[])
    {
        int arr[] = new int[] {0 , 1, 2, 3, 4, 5, 6, 7, 8, 9};
        int n = 6;
        n = arr[arr[n] / 2];
        System.out.println(arr[n] / 2);
    }
}
```

- a) 3
- b) 0
- c) 6
- d) 1

34. What exception thrown by parseInt() method?

- a) ArithmeticException
- b) ClassNotFoundException
- c) NullPointerException
- d) NumberFormatException

35. What will be the output of the following Java code?

```
class array_output
{
    public static void main(String args[])
    {
        int array_variable[][] = {{ 1, 2, 3}, { 4 , 5, 6}, { 7, 8, 9}};
        int sum = 0;
        for (int i = 0; i < 3; ++i)
            for (int j = 0; j < 3 ; ++j)
```

```
        sum = sum + array_variable[i][j];
    System.out.print(sum / 5);
    }
}
```

- a) 8
- b) 9
- c) 10
- d) 11

36. What is the type of variable 'b' and 'd' in the following Java snippet?

```
int a[], b;
int []c, d;
```

- a) 'b' and 'd' are int
- b) 'b' and 'd' are arrays of type int
- c) 'b' is int variable; 'd' is int array
- d) 'd' is int variable; 'b' is int array

37. Which of these is an incorrect array declaration?

- a) `int arr[] = new int[5];`
- b) `int [] arr = new int[5];`
- c) `int arr[]; arr = new int[5];`
- d) `int arr[] = int [5] new;`

38. Which of the following should be true of the object thrown by a thrown statement?

- a) Should be assignable to String type
- b) Should be assignable to Exception type
- c) Should be assignable to Throwable type
- d) Should be assignable to Error type

39. What will be the output of the following Java code snippet?

```
Object[] names = new String[3];
names[0] = new Integer(0);
```

- a) `ArrayIndexOutOfBoundsException`
- b) `ArrayStoreException`
- c) Compilation Error
- d) Code runs successfully

40. Which of these statement is incorrect?

- a) A thread can be formed by implementing Runnable interface only
- b) A thread can be formed by a class that extends Thread class
- c) `start()` method is used to begin execution of the thread
- d) `run()` method is used to begin execution of a thread before `start()` method in special cases

41. Which of these method is used to implement Runnable interface?

- a) stop()
- b) run()
- c) runThread()
- d) stopThread()

42. How to copy contents of array?

- a) System.arraycopy()
- b) Array.copy()
- c) Arrays.copy()
- d) Collection.copy()

43. Which of these exceptions handles the divide by zero error?

- a) ArithmeticException
- b) MathException
- c) IllegalAccessException
- d) IllegalException

44. What is multithreaded programming?

- a) It's a process in which two different processes run simultaneously
- b) It's a process in which two or more parts of same process run simultaneously
- c) It's a process in which many different process are able to access same information
- d) It's a process in which a single process can access information from many sources

45. Which of these are types of multitasking?

- a) Process based
- b) Thread based
- c) Process and Thread based
- d) None of the mentioned

46. Which of these statements is incorrect?

- a) By multithreading CPU idle time is minimized, and we can take maximum use of it
- b) By multitasking CPU idle time is minimized, and we can take maximum use of it
- c) Two thread in Java can have the same priority
- d) A thread can exist only in two states, running and blocked

47. What requires less resources?

- a) Thread
- b) Process
- c) Thread and Process
- d) Neither Thread nor Process

48. What decides thread priority?

- a) Process
- b) Process scheduler
- c) Thread
- d) Thread scheduler

49. Which class is used to create servers that listen for either local client or remote client programs?

- a) ServerSockets
- b) httpServer
- c) httpResponse
- d) Serverhttp

50. Which constructor of DatagramSocket class is used to create a datagram socket and binds it with the given Port Number?

- a) DatagramSocket(int port)
- b) DatagramSocket(int port, InetAddress address)
- c) DatagramSocket()
- d) Datagram Server

51. Which methods are commonly used in ServerSocket class?

- a) public OutputStream getOutputStream()
- b) public Socket accept()
- c) public synchronized void close()
- d) None of the above

52. Which class is used to create servers that listen for either local client or remote client programs?

- a) ServerSockets
- b) httpServer
- c) httpResponse
- d) None of the above

53. Which package provides core functionality?

- a) java.net
- b) java.rmi
- c) java.lang
- d) java.math

Unit III

1. What does AWT stands for?
 - a) All Window Tools
 - b) All Writing Tools
 - c) Abstract Window Toolkit
 - d) Abstract Writing Toolkit

2. What is an event in delegation event model used by Java programming language?
 - a) An event is an object that describes a state change in a source
 - b) An event is an object that describes a state change in processing
 - c) An event is an object that describes any change by the user and system
 - d) An event is a class used for defining object, to create events

3. Which of these methods can be used to output a string in an applet?
 - a) display()
 - b) print()
 - c) drawString()
 - d) transient()

4. Which of these functions is called to display the output of an applet?
 - a) display()
 - b) paint()
 - c) displayApplet()
 - d) PrintApplet()

5. Which of these methods are used to register a keyboard event listener?
 - a) KeyListener()

- b) addKistener()
- c) addKeyListener()
- d) eventKeyListener()

6. Which of these classes are used by Byte streams for input and output operation?

- a) InputStream
- b) InputStream
- c) Reader
- d) All of the mentioned

7. Which of these modifiers can be used for a variable so that it can be accessed from any thread or parts of a program?

- a) transient
- b) volatile
- c) global
- d) No modifier is needed

8. Which of these class is used to read from byte array?

- a) InputStream
- b) BufferedInputStream
- c) ByteArrayInputStream
- d) ByteArrayInputStream

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

```
class output
{
    public static void main(String args[])
    {
        StringBuffer c = new StringBuffer("Hello");
        System.out.println(c.length());
    }
}
```

- a) 4
- b) 5
- c) 6
- d) 7

10. Which of these operators can be used to get run time information about an object?

- a) getInfo
- b) Info
- c) instanceof
- d) getinfof

11. What is the Message is displayed in the applet made by the following Java program?

```
import java.awt.*;
import java.applet.*;
public class myapplet extends Applet
{
    public void paint(Graphics g)
    {
        g.drawString("A Simple Applet", 20, 20);
    }
}
```

- a) A Simple Applet
- b) A Simple Applet 20 20
- c) Compilation Error
- d) Runtime Error

12. What is the length of the application box made the following Java program?

```
import java.awt.*;
import java.applet.*;
public class myapplet extends Applet
{
    Graphic g;
    g.drawString("A Simple Applet", 20, 20);
}
```

- a) 20
- b) Default value
- c) Compilation Error
- d) Runtime Error

13. Which is the container that doesn't contain title bar and MenuBars but it can have other components like button, textfield etc?

- a) Window
- b) Frame
- c) Panel
- d) Container

14. Which package provides many event classes and Listener interfaces for event handling?

- a) java.awt
- b) java.awt.Graphics
- c) java.awt.event
- d) None of the above

15. In Graphics class which method is used to draw a rectangle with the specified width and height?

- a) public void drawRect(int x, int y, int width, int height)
- b) public abstract void fillRect(int x, int y, int width, int height)
- c) public abstract void drawLine(int x1, int y1, int x2, int y2)
- d) public abstract void drawOval(int x, int y, int width, int height)

16. Which is a component in AWT that can contain other components like buttons, textfields, labels etc.?

- a) Window
- b) Container
- c) Panel
- d) Frame

17. The following steps are required to perform

- 1) Implement the Listener interface and override its methods
- 2) Register the component with the Listener

- a) Exception Handling
- b) String Handling
- c) Event Handling
- d) None of the above

18. To use the ActionListener interface it must be implemented by a class there are several ways to do that find in the following?

- a) Creating a new class
- b) using the class of the graphical component
- c) an anonymous inner class
- d) All mentioned above

19. Program which executes applet is known as_____

- a) Applet Engine
- b) Virtual machine
- c) JVM
- d) None of the Above

20. Smallest individual unit in java program is known as_____

- a) String
- b) Literal
- c) Token
- d) Operator

21. Which of these class is used to read characters and strings in Java from console?

- a) BufferedReader
- b) StringReader
- c) BufferedStreamReader
- d) InputStreamReader

22. Which exception is thrown by read() method?

- a) IOException
- b) InterruptedException
- c) SystemException
- d) SystemInputException

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

- a) System
- b) System.out
- c) BUfferedOutputStream
- d) PrintStream

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

- a) FileStream
- b) FileInputStream
- c) BUfferedOutputStream
- d) FileBufferStream

25. 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());
    }
}
```

Note: inputoutput.java is stored in the disk.

- a) true
- b) false
- c) prints number of bytes in file
- d) prints number of characters in the file