

PG DEPARTMENT OF COMPUTER APPLICATIONS
JAVA PROGRAMMING – 19PMC318
K1 LEVEL QUESTIONS

Unit – I

1. OOP stands for_____
a) Object Oriented Paradigm **b) Object Oriented Programming**
c) Object Oriented Partitioning d) Object On Program
2. An essential element of OOP that hiding inner details of a class and is used by Humans to manage complexity_____.
a) **Abstraction** b) Polymorphism
c) Inheritance d) none
3. _____ is the mechanism that binds together code and data it manipulates and keeps both safe from outside interference and misuse.
a) Abstraction b) Polymorphism
c) **Encapsulation** d) none
4. The process by which one object acquires the properties of another object is called_____.
a) Polymorphism b) Encapsulation
c) Abstraction **d) Inheritance**
5. Java defines _____ primitive types of data.
a) 4 b) 6
c) 2 **d) 8**
6. Java data types are put in _____ groups.
a) **4** b) 6
c) 2 d) 8
7. Integer is for _____
a) Numbers with fractional precision **b) Whole-value signed numbers**
c) Include char and character set d) Representing true/false value
8. Floating-point numbers is for _____
a) **Numbers with fractional precision** b) Whole-value signed numbers
c) Include char and character set d) Representing true/false value
9. The constructor functions are invoked _____
a) **When an object initialized** b) When a local variable is initialized

19. Which of these keywords is not a part of exception handling?

- | | |
|------------------|------------|
| a) try | b) finally |
| c) thrown | d) catch |

20. Which of these method of class String is used to extract a single character from a String object?

- | | |
|--------------------|-------------|
| a) CHARAT() | b) chatat() |
| c) charAt() | d) ChatAt() |

Unit – III

21. URL is an acronym for?

- | | |
|------------------------------------|-----------------------------|
| a. Uniform Resource Locator | b. Unified Resource Locator |
| c. Uniform Restore Locator | d. Unified Restore Locator |

22. 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 |

23. which classes are used for connection-less socket programming?

- | | |
|--------------------------|----------------------|
| a. DatagramSocket | b. DatagramPacket |
| c. Both A & B | d. None of the above |

24. Which package provides core functionality?

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

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

- | | |
|---------------|-------------------------|
| a) httpServer | b) ServerSockets |
| c) MimeHeader | d) HttpResponse |

26. How many ports of TCP/IP are reserved for specific protocols?

- | | |
|---------|----------------|
| a) 10 | b) 1024 |
| c) 2048 | d) 512 |

27. Which method is used to change the name of a thread?

- | | |
|-----------------------------------|--|
| a. public String getName() | b. public void setName(String name) |
| c. public void getName() | d. public String setName(String name) |

28. Mutual exclusive and inter-thread communication are which type of Synchorization?

- a. **Thread Synchronization**
- b. Process Synchronization
- c. Object Synchronization
- d. None of the above

29. Which of these method of DatagramPacket is used to obtain the byte array of data contained in a datagram?

- a) **getData()**
- b) getBytes()
- c) getArray()
- d) recieveBytes()

30. Which Thread pool is used where container creates a thread pool to process the request?

- a. Servlet
- b. JSp
- c. **All of the above**
- d. None of the above

Unit-IV

31. _____ provide a convenient means for handling input and output of bytes.

- a) **Byte Streams**
- b) character stream
- c) streams
- d) none

32. _____ provide a convenient means for handling input and output of characters.

- a) Byte stream
- b) **Character Streams**
- c) streams
- d) none

33. _____ is an input stream that contains methods for reading the Java standard data types.

- a) **DataInputStream**
- b) DataOutputStream
- c) Scanner
- d) none

34. _____ is an output stream that contains methods for writing the Java standard data types.

- a) DataInputStream
- b) **DataOutputStream**
- c) Scanner
- d) none

35. A _____ is an object that is notified when an event occurs.

- a) **listener**
- b) ActionListener
- c) EventListener
- d) none

36. The modern approach to handling events is based on the _____, which defines standard and consistent mechanisms to generate and process events.

- a) delegation model
- b) **delegation event model**
- c) delegation action model
- d) none

37. _____ is a super class of all events.

- a) **EventObject** b) **ActionObject**
c) **SourceObject** d) **none**

38. The _____ method is called when the environment determines that your applet needs to be removed completely from memory.

- a) **destroy()** b) **paint()**
c) **run()** d) **start()**

39. The _____ method is called when a web browser leaves the HTML document containing the applet.

- a) **stop()** b) **paint()**
c) **run()** d) **start()**

40. _____ is used to output a string to an applet.

- a) **drawRect()** b) **drawString()**
c) **drawLine()** d) **none**

Unit-V

41. The _____ class is a concrete subclass of Container

- a) **Panel** b) **frame**
c) **label** d) **none**

42. A _____ object is responsible for remembering the current foreground and background colors and the currently selected text font.

- a) **Container** b) **Component**
c) **both a & b** d) **none**

43. _____ describes the collection of available Font and GraphicsDevice objects.

- a) **GraphicsEnvironment** b) **Applets**
c) **font** d) **none**

44. 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)**

45. Which object can be constructed to show any number of choices in the visible window?

- a. **Labels** b. **Choice**

c. List

d. Checkbox

46. How many types of controls does AWT support?

a. 7

b. 6

c. 5

d. 8

47. The setBackground() method is part of the following class in java.awt package:

a) Graphics

b) Component

c) Applet

d) Container

48. Package of drawstring() method is

a) java.applet

b) java.io

c) javax.swing

d) java.awt

49. Which driver uses ODBC driver to connect to the database?

a. JDBC-ODBC bridge driver

b. Native - API driver

c. Network Protocol driver

d. Thin driver

50. How many types of JDBC drivers are available?

a. 3

b. 4

c. 2

d. 5

PG DEPARTMENT OF COMPUTER APPLICATIONS
JAVA PROGRAMMING – 19PMC318
K2 LEVEL QUESTIONS

Unit – I

1) Expand- OOP?

Object Oriented Programming.

2) What are the 2 paradigms that govern how a program is constructed?

1. Code
2. Data

3) Define Abstraction.

The quality of hiding inner details of a class is known as Abstraction.

4) Define Encapsulation.

Encapsulation is the mechanism that binds together code and data it manipulates and keeps both safe from outside interference and misuse.

5) What are the types of operators in java?

Four Types:

- 1.Arithmetic
- 2.Bitwise
- 3.Relational
- 4.Logical

6) What are the types of control statements?

Three types:

- 1.Selection
- 2.Iteration
- 3.Jump

7) Define Selection statements.

Selection statements allow your program to choose different paths of execution.

8) What are the classification of Jump statements?

Three kinds:

- 1.Continue
- 2.Break
- 3.Return

9) What is another name of switch statement?

Switch statement is a multiway branching statement. So, it is also known as branching statement.

10) Define constructor.

Constructors are the methods that have the same name as class name.

Unit – II

11) What is method overloading?

When a class has two or more methods by the same name but different parameters, at the time of calling based on the parameters passed respective method is called. This mechanism is known as method overloading.

12) What is method signature?

The method signature consists of the method name and the parameter list.

Method signature consists of three things.

- a) Method name
- b) Number of arguments
- c) Types of arguments

13. Can we declare one overloaded method as static and another one as non-static?

The answer is 'Yes'. We can have two or more static methods with same name, but differences in input parameters.

14. How do compilers differentiate overloaded methods from duplicate methods?

Compiler uses method signature to check whether the method is overloaded or duplicated.

15. Is Method overriding is combination of inheritance and polymorphism?

Yes, Method overriding is a combination of inheritance and polymorphism.

16 What is the purpose of static methods and variables?

When we want the variable or function value to be shared between all instances of the class, we can declare the variable or method to be static.

17. What is the static variable?

Class variables also known as static variables are declared with the static keyword in a class, but outside a method, constructor or a block.

18) How many types of access modifiers are there in Java.?

Four types:

- 1. private

2.default

3.protected

4.public

19. .What is the syntax of inheritance?

```
class Subclass-name extends Superclass-name
{
    //methods and fields
}
```

20. What is the base class of all classes?

The java.lang.object is a base class for all classes.

Unit – III

21. What is Thread in java?

- Thread are light weight process.
- A thread class belongs to java.lang package.

22. Explain About Thread Priority?

Every thread has a priority, usually higher priority thread gets precedence in execution but it depends on Thread Scheduler implementation that is OS dependent.

23. What Happens When Start() Is Called?

A new thread of execution with a new call stack starts. The state of thread changes from new to runnable. When the thread gets chance to execute its target run() method starts to run.

24. Name The Methods Available In The Thread Class.

- a. isAlive()
- b. join()
- c. resume()
- d. suspend()
- e. stop()
- f. start()
- g. sleep()
- h. destroy()

25. What Is Time Slicing?

Timeslicing is the method of allocating CPU time to individual threads in a priority schedule.

26. Why wait(), notify() and notifyAll() methods are defined in Object class not Thread class?

It is because they are related to lock and object has a lock.

27. Define datagram

A datagram is an independent, self-contained message sent over the network whose arrival, arrival time, and content are not guaranteed.

. 28. Define TCP

TCP stands for Transmission Control Protocol, which allows for reliable communication between two applications.

29. Define UDP

UDP stands for User Datagram Protocol, a connection-less protocol that allows for packets of data to be transmitted between applications.

30. What Is Thread Leak?

: Thread leak is when application does not release references of the thread object and those threads do not get garbage collected.

Unit – IV

31) What is a stream?

A stream is an abstraction that either produces or consumes information. A stream is linked to a physical device by the Java I/O system.

32) What are the types of stream defined in Java?

Java defines two types of streams:

Byte Stream

Character Stream

33) What are the top abstract classes of byte stream classes?

Byte streams are defined by using two class hierarchies. At the top are two abstract classes: **InputStream** and **OutputStream**.

34) What is an event?

An event is an object that describes a state change in a source.

35) What is an event source?

A source is an object that generates an event.

36) What is the general form of an event registration method?

Each type of event has its own registration method. Here is the general form:

```
public void addTypeListener(TypeListener el)
```

37) What is an event listener?

A listener is an object that is notified when an event occurs.

38) What are the methods of KeyListener interface?

```
void keyPressed(KeyEvent ke)
```

```
void keyReleased(KeyEvent ke)
```

```
void keyTyped(KeyEvent ke)
```

39) What are the methods defined in MouseListener interface?

```
void mouseClicked(MouseEvent me)
```

```
void mouseEntered(MouseEvent me)
```

```
void mouseExited(MouseEvent me)
```

```
void mousePressed(MouseEvent me)
```

```
void mouseReleased(MouseEvent me)
```

40) Write the methods used to set background and foreground color of an applet's window.

```
void setBackground(Color newColor)
```

```
void setForeground(Color newColor)
```

Unit – V

41. What is meant by Controls and what are different types of controls?

Controls are components that allow a user to interact with your application. The AWT supports the following types of controls: Labels Push buttons Check boxes Choice lists Lists Scroll bars Text components These controls are subclasses of Component

42. What are the SubClass of TextComponent Class?

TextField and TextArea

43. Which method of the component class is used to set the position and the size of a component?

```
setBounds()
```

44. Which TextComponent method is used to set a TextComponent to the read-only state?

setEditable()

45. How can the Checkbox class be used to create a radio button?

By associating Checkbox objects with a CheckboxGroup.

46. Define File Dialog.

Java provides a built-in dialog box that lets the user specify a file.

To create a file dialog box, instantiate an object of type FileDialog.

47. What are the methods used by FileDialog?

String getDirectory()

String getFile()

48. Expand-JDBC

JDBC stands for Java Data Base Connectivity.

49. Advantage of using PreparedStatement in java?

PreparedStatement in java improves performance and also prevents from SQL injection.

50. Which methods are used to transfer data between database and application?

ResultSet

PreparedStatement

CallableStatement

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K3 LEVEL QUESTIONS

Unit 1

1. Explain inheritance with example
2. Explain integer data types
3. Discuss type conversion with example
4. Write a program to add 2 matrix
5. Discuss bitwise logical operators
6. Show and explain the syntax of switch statement
7. Differentiate break and continue statement
8. Use constructor to find average of n numbers
9. Explain the concept of finalize method
10. Explain polymorphism

Unit 2

11. Explain the concept of overloaded methods
12. Judge the effect of super keyword
13. How do you implement runtime polymorphism in Java?
14. Explain the concept of nested tri statement with example
15. Explain the method of character extraction
16. Differentiate delete () and deleteCharAt () functions
17. Explain stringBuffer constructor
18. Write a program to demonstrate indexOf () and lastIndexOf ()
19. Tell what would happen if final is used with inheritance
20. Explain the concept of static keyword

Unit 3

21. Write a program to create a thread.
22. Explain multiple thread with example.
23. Differentiate isAlive () and join () function.
24. Solve thread priorities with examples.
25. Explain any five methods thread class

26. Write any 10 networking class.
27. Discuss factory method.
28. Explain TCPIP server socket.
29. Explain whois with an example.
30. Explain basic concepts of networking

Unit 4

31. Show and explain any five method of InputStream.
32. Write a program to implement SequenceInputStream.
33. Write a program to implement PushbackReader.
34. Sketch the Skeleton of Applets.
35. Explain showStatus () method with example.
36. Explain any five event classes.
37. Show the sources of events.
38. Explain mouse events with example.
39. Show the methods defined by writer.
40. Write a program to demonstrate file.

Unit 5

41. Explain window fundamentals.
 42. Write a program to demonstrate color.
 43. Explain any 5 methods defined by font.
 44. Explain button class with example.
 45. Show the usage of Label class.
 46. How do you manage scroll bars.
 47. Explain the concept of menu class.
 48. How do you create dialog box explain.
 49. How do you create a text area explain.
 50. What is choice explain.
- .

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K4K5 LEVEL QUESTIONS

Unit 1

1. Analyze the concept of object oriented programming
2. Explain Java data types in detail
3. Write a program to find the inverse of a matrix
4. Classify the iteration statements with example
5. Write a program to implement the stack

Unit 2

6. Sketch the concept of argument passing with example
7. Explain packages and interface in detail
8. Analyze the concept of exception handling
9. Classify the methods used in string buffer
10. Explain overriding with example

Unit 3

11. Infer the results of using synchronized methods
12. Explain deadlocks with an example
13. Differentiate URL and URL Connection with example
14. Explain datagram with example program
15. Discuss interthread communication

Unit 4

16. Illustrate FileInputStream and FileOutputStream with an example
17. Explain serialization in detail
18. Show and explain the purpose of attributes in HTMLAPPLET tag
19. Explain event listener interfaces in detail
20. Write a program to implement keyboard events

Unit 5

21. Classify the methods used in graphics

22. Explain checkbox with example
23. Prepare list using List class
24. Explain any 2 Layout managers with example
25. Write a program to select the data from database using JDBC.