

Aryan College
Java Programming

Unit I

- Q1. What is platform? (2013)
- Q2. Why does java not support pointers? (2013)(2015)
- Q3. Write an algorithm that accepts n integers as input and print all odd integers among them as output. Also draw a flowchart. (2013)
- Q4. Write a program that accepts a string as input and print the character individually. (2013)
- Q5. What do mean by Object oriented programming? (2014) (2015)
- Q6. Why does java not support pointers? (2014)
- Q7. Explain the working of Java Virtual Machine. (2014)(2016)
- Q8. List and explain object oriented concepts in details. (2014)
- Q9. What are data types in java? (2015)
- Q10. Give any two differences between C++ and Java. (2015)
- Q11. Explain all data types in detail. (2016)
- Q12. What is JRE? (2017)
- Q13. Write differences between OOPs and Procedural. (2017)

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Unit II

- Q1. Why does java not support multiple inheritances? (2013)
- Q2. In System.out.println(): what are system out and println? (2013)
- Q3. What is meant by abstract interfaces? (2013)
- Q4. What are the access modifiers available in java? Also explain their scope. (2013)
- Q5. Explain in detail about java operators and expressions with suitable examples. (2013)
- Q6. With the help of example for each, write the syntax for the following constructs (2013)
- 1) do while
 - 2) switch
 - 3) for
 - 4) Explain exception handling mechanism in detail.
- Q7. What is a class? (2014)
- Q8. What is an object? (2014)
- Q9. What are the core OOPs concepts? (2014)
- Q10. What is a constructor? (2014)
- Q11. In java, how to make an object completely encapsulated? (2014)
- Q12. What is finalize() method? (2014)
- Q13. What is inheritance? Explain its advantages. Also explain how a subclass is derived from a super class in java. (2014)
- Q14. Write note on recursion. (2014)
- Q15. Explain advantages and disadvantages of garbage collection in java. (2014)
- Q16. What are reference variables in java? (2015)
- Q17. What purpose "final" serves in java? (2015)
- Q18. What is the difference between length() and length? (2015)
- Q19. Which method can be used to call garbage collector in java? (2015)
- Q20. Evaluate the following expression : (2015)
- ```
int a = 10, b = 20, c = 0;
c = ++a + ++b + a++;
System.out.println("Value of a: " + a);
System.out.println("Value of b: " + b);
System.out.println("Value of c: " + c);
```
- Q21. Why do we declare a main() method in java as public and static? (2015)
- Q22. What is a static block? Write the output of the following program? (2015)
- ```
Class X
{
    Static int a = 0;
    static {
        A = 100;
    }
    Public static void main( String args[])
    {
        a += 8;
        System.out.println("The value of a : " + a);
    }
}
```
- Q23. What are constructors in java? Explain the various types of constructors with examples. (2015)
- Q24. What is the difference between method overloading and method overriding? Explain with suitable example. (2015)

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Q25. Write short notes on

1) Switch statement in java

Q26. Write the java code to calculate the total bill amount by accepting number of units from the screen on the following criteria: (2015)

1) if units consumed are less than 100, Rate per unit is Rs. 1.20/-

2) if units consumed are between 100 – 300, rate per unit is Rs. 2/-

3) If units are above 300, Rate per unit is Rs. 3/-

Q27. What is java virtual machine? Explain the working of Java Virtual Machine. (2015)

Q28. Write a program to calculate the factorial of a given number by recursion. (2015)

Q29. Differentiate between abstract class and interface also give the syntax and example. (2015)

Q30. Write a java program to print the following pattern (2015)

```
      *
    *  *  *
  *   *   *   *
```

Q31. Define instanceof operator. (2016)

Q32. What is bytecode? (2016)

Q33. Explain garbage collector. (2016)

Q34. What is the difference between class and interface? Explain with program. (2016)

Q35. Write a short note on following: (2016)

1) this (2016,2017)

2) super

3) static

4) abstract

Q36. What is method overriding in Java? (2017)

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Unit III

- Q1. What is the difference between final and finally? (2013)
- Q2. What is package? (2013)
- Q3. Can a lock be acquired on class? (2013)
- Q4. What is thread? (2013)
- Q5. How to create multithread program? (2013)
- Q6. What is synchronization? Why is it important? (2013, 2016)(2017)
- Q7. What is the usage of java packages? (2014)
- Q8. What is the difference between abstract class and interface? (2014)
- Q9. Explain how is exception handling done in java with suitable example? (2014)
- Q10. If a class is loaded in a package, what do you need to change in the OS environment to be able to use it? (2014)
- Q11. Discuss any two types of streams. (2014)
- Q12. Write a program in java to read the content from a file and write it to the console. (2014)
- Q13. Write a program in java which writes console to the file. (2015)
- Q14. What are the threads in java? Also explain the difference between user thread and daemon thread. Write a small program that uses threading. (2015)
- Q15. What are packages in java? Explain the syntax and example to declare and import (2015)
- Q16. Explain finally block (2016)(2017)
- Q17. What is abstract class? (2016)
- Q18. What is Runnable interface. (2016)
- Q19. What is multithreading and how java implements it? Also explain difference between synchronized method and synchronized block with suitable program. (2016)
- Q20. What is Thread? Explain lifecycle of thread. Write a program to create digital clock using thread class. (2016)
- Q21. What is Exception? Explain exception handling in java. Write a program to create Custom Exception in java. (2016, 2017)
- Q22. What are multiple threads? (2017)
- Q23. Develop a simple real life application program to illustrate the use of multithreads (2017)
- Q24. Write a program to create a package and how it will be used in a file? (2017)
- Q25. Explain try and catch block in exception handling with an example. (2017)

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Unit IV

- Q1. What is the collection API? (2013)(2014)
- Q2. What is Vector class? (2013)
- Q3. Mention the use of following libraries in the programming. (2013)
- 1) java.math
 - 2) java.net
 - 3) java.applet
 - 4) java.awt
- Q4. What is applet? How applet is different from java application? (2013)
- Q5. What is the difference between array and vector? (2014)(2015)(2017)
- Q6. List four differences between a java application program and applet program, with example of each program.
- Q7. What is applet? Write a program to explain how parameters are passed in as an applet program. (2014)
- Q8. What is Applet in java? Explain the applet life cycle with example. (2015)(2017)
- Q9. Write a java program to reverse the input using array. (2015)
- User Input – I love my country India.
- Output aidnlyrtnuocymevol I.
- Q10. What is difference between String and StringBuffer? Explain with program (2016,2017)
- Q11. What is applet? What is the difference between applet programming and programming? Write an applet program to generate a form that accepts following data from user. (2016)
- 1) username
 - 2) Password
- Q12. Define Wrapper class in java. (2017)
- Q13. What is local applet and remote applet? (2017)
- Q14. Develop an applet that received 3 numeric values as input from the user and then displays the largest of the three on the screen. Write an HTML page and test the applet. (2017)

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Unit V

- Q1. What is serialization? (2013)
- Q2. What is the difference between AWT and swing components? (2013)(2016)
- Q3. Explain architecture of JDBC. What are types of different statements available in JDBC? (2013)
- Q4. Define RMI. Give a simple client server application using RMI. (2013)
- Q5. Write short notes on (any two) (2013)
- 1) Polymorphism
 - 2) Java bean architecture (2017)
 - 3) AWT
 - 4) CORBA (2013, 2014, 2015, 2017)
 - 5) Bean serialization
 - 6) CGI architecture
 - 7) JDBC architecture (2014, 2015)
 - 8) RMI
- Q6. What is event? What are different components of event? (2014) (2016)
- Q7. Explain architecture of JDBC? What are the different types of statements available in JDBC?
- Q8. Define ODBC? (2016)
- Q9. Why we use JDBC? Explain five steps to connect the database. (2016)
- Q10. What is RMI? (2017)
- Q11. What is AWT? (2017)
- Q12. Define Java Beans. (2017)
- Q13. What are AWT components? (2017)
- Q14. What is Event handling in java? (2017)
- Q15. Explain JDBC & ODBC in detail. (2017)