QUESTION BANK-2024-25

STD – SYBSCIT SEM IV   MODULE – I Introduction & Data types   SUB – Core Java

Q.1) What is Java Virtual Machine (JVM)? Explain JVM components.

Q.2)Explain the following.

(i) Autoboxing with example

(ii) Conditional operator with example

(iii)Autoboxing and Unboxing.

Q.3)Define Identifier. Explain rules for identifiers in java.

Q.4) List of and explain any five features of java.

Q.5) Explanation of JVM Components along with diagram

Q.6) Explain the following methods of String.(1 mark for each method)

(i) length() (ii) equals() (iii) charAt() (iv) compareTo() (v) substring()

Q.7) How is main() method of java written? Explain it in detail:

    public static void main(String args[])

Q.8)Write a short notes on java's architecture and its components.

Q.9) What are the primitive data types in java? Briefly explain their size, range and other details.

Q.10) Write in detail about different types of operators in java , category-wise quoting their functionality , operands and return type. Give one example statement for each.

Q.11)Explain the terms : narrowing , widening , instantiation , auto boxing

Q.12) Briefly explain : (i) Type annotations (ii) Lambda expressions.

Q 13) Write a short note on Data types.

Q 14) Explain the following method of string.

1) length() 2) equals() 3) chartAt() 4) compareTo() 5) substring()

Q.15) Define Identifier. Explain rules for identifiers in java.

QUESTION BANK

STD – SYBSCIT SEM IV   MODULE – II Control Flow Statements ,Iterations & Classes   SUB – CJ

Q.1) Q 6) Explain any two object reference types from the following.

1.String 2.Array 3.Class 4.Interface 5.Object

Q.2)Write a short note on Garbage Collection in Java.

Q.4) Write a short note on for each statement with an example.

Q.5) What is Method overloading? Explain with the help of a program.

Q.6) Write a short note on Object Oriented Programming.

Q.7)Explain types of constructors in Java.

Q.8) Write short note on Static variable in Java.

Q.9)Write a short notes on access specifiers in java.

Q.10)Write a comparative note on overloading and overriding in java.

Q.11)Explain the functionality of different types of iterative statements in java , using suitable examples.

Q.12)Explain : (i) Varargs (ii) this (iii) super

Q.13)Demonstrate the behavior of static members in java using a suitable example.

Q.14)Explain the semantics and functionality of the given statements :

(i) Rectangle rec = new Rectangle(a,b);

(ii) break out;

(iii)public static void main(String ag[]) {.. }

Q.15)When do we use switch-case statement? Explain it with example.

Q.16) List and explain the types of classes in java.

1) Public Class

2) Private Class

3) Final Class

4) Abstract Class

Q.17) What is a Constructor? Explain characteristics of Constructor.

Q.18) Write a program to illustrate the concept of method overloading.

Q.19) When do we use 'foreach' loop? Explain it with example.

Q.20) What do you mean by variable arguments? Explain it with example.

QUESTION BANK

STD – SYBSCIT SEM IV   MODULE – III   Inheritance & Packages   SUB –CJ

Q.1) Define Inheritance. Explain its types.

 Q.2) Write a program to demonstrate Multiple Inheritance.

Q.3)What are packages? Give the advantages of Packages.

 Q.4) What is an Abstract class? Explain with a suitable java code.

Q.5) Write short note on "this" keyword in Java.

Q.6) Explain use of "super" as a constructor in Java.

Q.7)Write a comparative note on abstract classes and interfaces in java.

Q.8)Quote the different kinds of inheritance available in java. Explain them using suitable code segments.

Q.9) Explain the terms/keywords : final , finally , finalize()

Q.10) Explain the below given code and the concept(s) it represents :

1) Shape gen = new Shape();

2) Rect r = new Rect(); Circ c = new Circ();

3) int k = Integer.parseInt(args[0]) ; // reading a number from command line

4) if (k==1) gen = r; else gen=c;

5) gen.showdata();

Q.11) How do you create your own package and import it in a java program? Explain the procedure step-wise using a suitable example.

Q.12)Explain the below given code fragments :

(i) interface values extends demoval { ... }

(ii) class sample extends dsamp implements dval { .. }

Q.13) Differentiate between classes and Interfaces.

Q.14) Write a program to implement multilevel inheritance with default constructor in each class.

QUESTION BANK

STD – SYBSCIT SEM IV   MODULE – IV Enumerations,Arrays , Multithreading ,Exceptions   SUB – CJ

Q.1) What is an Array?

Q.2) Write short note on Vectors.

Q.3) Explain Thread life cycle.

Q.4) Write a program to accept two numbers from the user and perform division of them. Use multiple try-catch block to catch Arithmetic Exception, NumberFormatException, etc.

Q.5)What are Checked and Unchecked Exceptions in Java.

Q.6)Explain use of "finally" block in exception handling.

Q.7) Write a Java program to implement Multithreading.

Q.8)What is a vector? List out any five vector methods and quote their functionality.
Write one example for each.

Q.9) Write in detail about the life cycle of a thread in java.

Q.10) Explain the difference between the following using a suitable example.

(i) equals() , compareTo() , equalsIgnoreCase()

Q.11) Explain any 3 different cases of exception handling.

Q.12) Explain the use of Enumeration datatype in java.

Q.13) Define Stream. Explain how we can write binary data to a file.

QUESTION BANK

STD – SYBSCIT SEM IV   MODULE – V Event Handling, Abstract Window Toolkit,Layouts   SUB – CJ

Q.1) Design an AWT program to print the factorial of an input value.

Q.2) Design an AWT program to perform various string operations like string reverse,
string concatenation, etc.

Q.3)What are Applets in Java.

Q.4)What are Layouts? Explain GridLayout with an example.

Q.5)Explain Adapter classes.

Q.6) Explain the delegation event model.

Q.7) What is an applet? Explain its life cycle in java.

Q.8) What is a Layout manager? Explain any two layouts.

Q.9)Write about : Button , Textfield , Label.

Q.10)Write about <APPLET> and <PARAM> tags.

Q.11) Explain the semantics and functionality of the given statements :

(i) public void paint(Graphics g) { ... }

(ii)paint()

(iii)b.addActionListener(this);

(iv)repaint();

Q.12) Briefly explain :Delegation model,Event,Event listener,Event sources

Q.13) Create an applet to display "Java World", Change the text color to Red.

Q.14) Create an AWT application to create a frame with a Button named "Square", a Label and a TextField. Enter a number in the TextField .Click of the Button should display square of that number in the Label.

Q.15) What is the use of Adapter classes? Explain any one Adapter class in detail.