|  |  |
| --- | --- |
| **.** |  |
| **Q. 1** | **Define :**   1. **Bytecode verifier** 2. **Class loader** 3. **JIT compiler** 4. **JVM** 5. **JDK** |
| Ans : | 1. Component of the JVM that ensures that byte code does not access private data. Whatever we are writing in java it convert those into dotnet code. 2. Responsible for keeping classes from different servers separate from each other as well as the local classes   c) JIT- Just In Time Compiler  d) JVM- Java Virtual Machine component of JRE. JVM is loads the file given by the programmer and executes it. |
|  |  |
|  | **Lesson 3: Language Fundamentals** |
| **Q. 2** | **What is the default value for float , char ,byte data types ?** |
| **Ans :** | int = 0  String = null  float = 0.0  double = 0.0  boolean=false |
|  |  |
| Q. 3 | a) What happens when you ignore break in switch. Given an Example.  b) Discuss the valid data types that w.r.t switch case ? |
| **Ans :** | 1. All the following cases will get executed till it finds the break statement.   **Example :** |
|  | **Lesson 4: Classes and Objects** |
| **Q.4** | What is the default value of all instance variables |
| **Ans.** |  |
| **Q** | What will happen if you don’t initialize a local variable and try to print it? |
| **Ans.** |  |
| **Q.5** | What is the need of :   1. Final 2. Finalize 3. Finally |
| **Ans.** |  |
| **Q.6** | Discuss Static method. |
|  |  |
|  | What is created in heap |
| **Ans** | Object |
|  |  |
|  | **Lesson 5: Exploring Basic Java Class Libraries** |
| **Q.7** | What are wrapper classes, list all the wrapper classes |
| **Ans** |  |
| **Q.8** | What are the possible modifiers for :   1. class/static variables 2. instance variables 3. local variables   (example : final is the only modifier used for local variables and public, private and static is used for local) |
| **Ans** |  |
| **Q.9** | Which type of variables must be initialized-mandatory ? |
| **Ans** | Local variable, primitives |
| **Q.10** | Which of the following are mutable/immutable ? |
|  | 1. string – String is immulate 2. String buffer 3. String builder |
| **Ans:** |  |
| **Q.11** | Give examples of using :   1. Append   Class appendDemo{  Public static void main(string args[]){  String s;  Int a=42;  Stringbuffer sb=newstringbuffer(40);  S=sb.append(“a=”).append(a).append(“/”).tostring();  SOP(s);  }  }   1. Concat() -> string string=”cor”+”java”;   o/p  cor java   1. Equals   String str1=”Hello”;  String str2=new String(str1);  SOP(str1+”equals”+str2+”->”+str1.equals(str2);  SOP(str1+”==”+str2+”->”+(str1==str2);  ==   1. compareTo   astr=(String)a;  bstr=(String)b;  return astr.compareTo(bstr); |
| **Ans** |  |
| **Q.12** | 1. Give example of using Scanner object.   Scanner sc=new Scanner(System.in);  Int i=sc.nextInt();  SOP(“You entered”+i);   1. State all the nextxxx() methods used with scanner object   String next()  Boolean nextBoolean()  byte nextByte()  double nextDouble()  float nextFloat()  int nextInt()  String nextLine()  Long nextLong()  Short nextShort() |
| **Ans** |  |
| **Q.13** | Give examples for each :   1. Get current date 2. Get tomorrows date - Add one day 3. Get yesterdays date -Subtract one day |
| **Ans** |  |
| **Q. 14** | State and give Examples for all Object class methods. |
| **Ans** |  |
|  | **Lesson 6: Inheritance and Polymorphism** |
| **Q.15** | Difference between overriding and overloading |
| **Ans** |  |
| **Q.16** | **Difference between Abstract Class and Interface** |
| **Ans** |  |
| **Q.17** | **State the modifiers of the data members in a interface** |
| **Ans** |  |
| **Q.18** | Aggregation relationship – how will you implement in java |
|  |  |
| **Q.19** | InstanceOf – Use and Example  The instanceof operator is used to make a test whether the given object belongs to specified type. Consider the below example. The if statement returns true here as the child object is type of its superclass.  class Ticket{  }  class ConfirmedTicketextends Ticket {  }  …  …  ConfirmedTickettkt= new ConfirmedTicket();  If(tktinstanceofTicket) {  //some processing  } |
| **Ans** |  |
| **Q.20** | Discuss all points about key word “this” and “super” with examples (while writing constructors)  thisis a keyword in Java. It can be used inside the Method or constructor of Class. |
| **Ans** |  |
| **Q.21** | How will you write varargs (what conditions must be followed). |
| **Ans** |  |
| **Q.** | Explain all points about :   1. Final variable 2. Final method 3. Final class |
| **Ans** |  |
|  | **Lesson 7: Abstract Classes and Interfaces** |
| **Q** | Difference between final and abstract class |
| **Ans** |  |
| **Q.** | By default interface data members are \_\_\_\_\_\_\_\_\_\_\_ |
| **Ans** |  |
|  | **Lesson 8:Regular Expressions** |
| **Q.** | Three classes in regex package |
| **Ans.** |  |
| **Q.** | Examples on pattern matching |
| **Ans.** |  |
|  | **Lesson 9:Exception Handling** |
| **Q.** | List and discuss ALL the Checked exception and UnChecked exception |
| **Ans.** | * Checked Exceptions : SQLException, IOException, ClassNotFoundException * UnChecked Exceptions : NullPointerException, ArithmeticException, ArrayIndexOutOfBoundException, NumberFormatException |
| **Q.** | Base class of all exception |
| **Ans.** | Throwable |
| **Q.** | How will you create checked and unchecked user defined exception |
| **Ans.** |  |
| **Q.** | Define :   1. Try 2. Catch 3. Finally 4. Throw 5. Throws |
| **Ans.** |  |
| **Q.** | Significance of Try-with-resource feature in exception handling |
| **Ans.** |  |
| **Q.** | Any null reference with method invocation will create NullPointer exception – Give example |
| **Ans.** |  |
| **Q.** | Layered architecture of Exception handling |
| **Ans.** |  |
|  | **Lesson 10:Array** |
| **Q.** | Syntax for declaring and initializing arrays of various fundamental data types. Give example |
| **Ans.** |  |
|  | **Lesson 11: Collection** |
| **Q.** | Difference between enhanced for loop and iterator with example. |
| **Ans.** |  |
| **Q.** | All collections’ comparison for ordered, sorted, duplicates, synchronization, key/value pair, allows null |
| **Ans.** |  |
| **Q.** | Give an Example on :   1. Collections.sort(),Arrays.sort(array) 2. Clear() 3. removeAll() 4. isEmpty() |
| **Ans.** |  |
|  | **Lesson 12: File IO** |
| **Q.** | Different types of streams in File IO, Buffered Streams. |
| **Ans.** |  |
| **Q.** | Need of flush() & isFile() method with Examples. |
| **Ans.** |  |
| **Q.** | Difference between Serialization and Deserialization |
| **Ans.** |  |
| **Q.** | Which classes are available in the java.io package ? |
| **Ans.** |  |
|  | **Lesson 13: Introduction to Junit 4 & Lesson 14: Advanced Testing** |
| **Q.** | Explain @Test with all attributes like timeout, expected. |
| **Ans.** |  |
| **Q.** | Explain @ignore |
| **Ans.** |  |
| **Q.** | Explain static import of Assert class |
| **Ans.** |  |
| **Q.** | Explain : '@RunWith(Suite.class), @Suite.SuiteClasses |
| **Ans.** | Define :  @Before  @After  @BeforeClass  @AfterClass |
|  |  |
| **Q.** | What is parameterized test? |
| **Ans.** |  |