

class Demo where the Geometry package is imported and the area and perimeter of the circle is calculated.

6. (a) Implement a Triangle class having three data members a,b,c as it's sides. This class includes appropriate constructors and two methods [4]
 (1) Find_area() : is used to return the area of the triangle.
 (2) Find_perimeter() : is used to return the perimeter of the triangle.
 Implement an user defined exception class NoTriangleFormException which is thrown when object is created without legal values($a+b>c$ and $b+c>a$ and $c+a>b$). Write down the necessary java code to test the functionality of Triangle class.
- (b) Write a program that checks whether a string is a valid password. The password rule: [4]
 1) A password must have at least six characters
 2) A password consists of only uppercase letters and digits
 3) A password must contain at least three digits
 Write a program that prompts the user to enter a password and display whether the password is valid or not.
7. (a) Write a program to read the content of a file and convert the lowercase letters to uppercase and vice-versa. Then write it into another file. Get names of the files from the user through standard input. [4]
 (b) Discuss the delegation event model with suitable example. [4]
8. Write Short notes on any two. [4×2]
 (a) Id and class selector
 (b) Inner & Nested class
 (c) ArrayList class
 (d) for each statement



AUTUMN END SEMESTER EXAMINATION-2018

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WEB TECHNOLOGY

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[For 2017(L.E.), 2016 & Previous Admitted Batches]

Time: 3 Hours

Full Marks: 60

Answer any SIX questions including question No.1 which is compulsory.

The figures in the margin indicate full marks.

Candidates are required to give their answers in their own words as far as practicable and all parts of a question should be answered at one place only.

1. (a) Differentiate between “GET” and “POST” methods in [2×10]
 <FORM> tag.
- (b) The style for <p> and <h1> tag is as follows:
 Their content is centrally aligned and the content of <p> and <h1> is displayed in red and yellow color respectively.
 Write down the CSS declarations for <p> and <h1> tags.
- (c) Explain the functionality of <iframe> with suitable example.
- (d) How parameters are passed to applet from HTML .Explain with suitable example.
- (e) What will be the output? If there is error, specify the reason.
- ```
class A{
 static{
 System.out.println("1");
 }
 A() { System.out.println("2"); }
}
class B extends A {
 static{
 System.out.println("3");
 }
 B() { System.out.println("4"); }
}
```



```

class Demo{
 public static void main(String x[]){
 new B();
 }
}

```

- (f) “A class can’t be abstract and final”. Justify this statement.
- (g) What will be the output? If there is error, specify the reason.

```

public interface X{ public void f1();}
public interface Y extends X{ public void f2();}
public class A implements Y{
 public void f1(){
 System.out.println(“Hello”); }
 public static void main(String z[]){
 A a = new A();
 a.f1();
 }
}

```

- (h) Explain the use of “this” keyword in java.
- (i) Justify the requirement of ‘finally’ block in exception handling.
- (j) Discuss any one constructor of PrintWriter class.

2. (a) Explain different types of HTML Links with suitable examples. [4]

- (b) Write the HTML codes to design the Hostel registration form containing the following details: [4]

Student name, Student Address, Type of Room (A/C or Non A/C), 2/3/4 seated, Fooding Habbit (Veg/Non-Veg), Student Mobile No, Student DOB, Student Email, Father Name, Mother Name, Father Contact Details, Mother Contact Details, Signature of Student.

3. (a) Write a program to implement Money class. This class should have fields for initializing a rupee and paisa value. The paisa value will be in the range of 0-99 with the paisa being the same sign as that of rupees. The class [4]

should have all reasonable constructors, addition() and subtraction() methods, and a main() method that provides a thorough test of all the methods in the class.

- (b) Differentiate between String and StringBuffer class. Discuss any two methods from each class. [4]

4. (a) Create a class Order that performs order processing of a single item. The class has five data members: cust\_name, cust\_no, qty\_ordered, unit\_price and total\_price. Include set and get methods for each field except the total price field. The set method prompts the user for values for each field. This class also needs a method to compute the total\_price and a method to display the field values. Create subclass ShippedOrder that overrides computePrice() by adding a shipping and handling charge of \$10.00. Write an application UseOrder that instantiates an object of each of these classes. Prompt the user for data for the Order object and display the result. Then prompt the user for data for the ShippedOrder object and display the results. [4]

- (b) What is the need of access specifier? Discuss all access specifier in java with suitable example. [4]

5. (a) Write an interface Numbers with a method int process (int x, int y). Write a class Sum in which the process() method finds the sum of two numbers and returns an int value. Write another class Average in which the process() method finds the average of the two numbers and returns an int value. Implement an application class Demo where the functionality of above two classes are tested that exhibit run time polymorphism. [4]

- (b) Implement a package Geometry which contains a class Circle. The Circle class has one instance variable radius (double) and two methods void setRadius (double) to set the radius of the circle and double getRadius() to return the radius of the circle. Also implement an application [4]