**Question 1:**

**package** java11Assignments;

**import** java.util.Scanner;

**public** **class** SimpleInterest {

**public** **static** **void** main(String[] args) {

Scanner sc=**new** Scanner(System.***in***);

System.***out***.println("Enter Principal Amount, Rate of Interest & No. of Years: ");

**double** principal=sc.nextDouble();

**double** roi=sc.nextDouble();

**double** years=sc.nextDouble();

SimpleInterface calculateSI = (a, b, c)->((a\*b\*c)/100);

System.***out***.println("Total Interest : " + calculateSI.calculate(principal, roi, years));

}

}

Interface:

**package** java11Assignments;

@FunctionalInterface

**public** **interface** SimpleInterface {

**double** calculate(**double** a, **double** b, **double** c);

}

Question 3:

import java.util.ArrayList;

import java.util.Arrays;

import java.util.List;

public class ArrayExample {

public static void main(String[] args) {

String str = "A quick brown fox jumps over the lazy dog";

List<String> strList = new ArrayList<String>(Arrays.asList(str.split(" ")));

Object[] newstr = strList.toArray();

for (Object word : newstr) {

System.out.println(word);

}

}

}

Question 4:

**import** java.io.File;

**import** java.io.IOException;

**import** java.nio.file.Files;

**import** java.nio.file.Path;

**import** java.util.Collections;

**import** java.util.List;

**import** java.util.stream.Collectors;

**public** **class** CountStudents {

**public** **static** **void** main(String[] args) **throws** IOException {

**var** path = "C:\\Users\\Vinod R\\OneDrive\\Desktop\\work\\StudentList.txt";

List<String> str = Files.readAllLines(Path.*of*(path));

**long** count = str.stream().filter(l -> !(l.isBlank())).count();

System.***out***.println(str.stream().filter(l -> !(l.isBlank())).map(l-> l.strip()).collect(Collectors.*toList*()) + "\nThere are " +count + " Students");

}

}

Question 6:

**import** java.io.IOException;

**import** java.net.URI;

**import** java.net.http.HttpClient;

**import** java.net.http.HttpRequest;

**import** java.net.http.HttpResponse;

**public** **class** Question6 {

**public** **static** **void** main(String[] args) **throws** IOException, InterruptedException {

String url = "http://httpbin.org/get";

**var** request = HttpRequest.*newBuilder*()

.uri(URI.*create*(url))

.GET()

.build();

**var** client = HttpClient.*newHttpClient*();

HttpResponse<String> response = client.send(request, HttpResponse.BodyHandlers.*ofString*());

System.***out***.println("Status Code: " + response.statusCode());

System.***out***.println("Response: " + response.body());

}

}