Question 3

Define a class Courier as per following specifications.

|  |  |
| --- | --- |
| Class | Courier |
| Data Members |  |
| String s\_name | To store the name of the sender |
| Int weight | To store the weight of the parcel |
| String r\_name | To store the name of the receiver |
| String r\_add | To store receiver's address |
| Member methods |  |
| vaid accept() | Accepts all required details |
| void calculate() | Calculates the charges for delivering the parcel  as per following table   |  |  | | --- | --- | | Weight in gms/ kg | Charges per gms/Kg | | upto 750 grams | Rs 200 | | For the weight exceeding 750 grms but not exceeding 1250gms | Rs 350 | | Exceeding 1250gms | Rs 475 | |
| void display() | Displays the details |
| void main() | Creates object of the class and invokes the  methods. |

Question 4

Write a program to accept elements of array A of order 4 x 4 and print whether it is a diagonal array or not. An array is said to be a diagonal array if the sum of the elements equal to the sum of the elements of right diagonal. Also print the Design program to display appropriate message if the array is not diagonal array .

Question 5

Write a program to accept full path of the file, using library functions extract and output file path, file name and file extensions as per the example below.

Example :

Input: C:\Users\admin\Pitures\Images\_1.jpg

Output

Path: C:\Users\admin\Pitures\

File Name: Images\_1

Extension: jpg

Question 6

Design a class to overload the function disp\_output as per the following:

**void disp\_output()** : to display the following output using appropriate logic

1 , 1 1 , 1 1 1 , 1 1 1 1 , 1 1 1 1 1 , 1 1 1 1 1 1

**void disp\_output(string str char chr**): displays the count of character ch appearing in string str by converting str and chr in small case

**void disp\_output(int n)** : displays following output as per users choice of no of lines of output required.

e.g. if n= 5

output

1

1 2

1 2 1

1 2 1 2

1 2 1 2 1

Question 7

Write a menu driver program.

1. To accept a number and print whether the number is a Dudeney number or not. A number is said to be Dudeney number if the cube of the summation of the digits of the number is equal to the number itself E.g. 512 is a dudeney number

5 + 1 + 2 =8

And cube of 8 is 512

1. To accept the number and print whether it is a SuperSpy number or not. A number is said to be a superspy number if the sum of the digits of the number is equal to the number of digits of the number entered.

E.g. 1021

No of digits = 4

Sum ofdigits = 1 + 0 + 2 + 1 = 4

Question 8

Write a program to accept name and total marks of n number of student in two single name and total marks

Calculate and print

1. The average of the total marks obtained by n number of students

Average = (sum of total marks of all the students)/n

1. Deviation of each students total marks with the average

deviation = total marks of a student - average