Coding Questions Set – 1

1. Given 3 random numbers, write a program to check which number is the largest.

2. Write a C program to compute the perimeter and area of a rectangle with a height of 7 inches and width of 5 inches.

3. Write a C program to convert specified days into years, weeks and days.
Note: Ignore leap year.

4. Write a C program to convert a given integer (in seconds) to hours, minutes and seconds.
Test Data :
Input seconds: 25300
Expected Output:
There are:
H:M:S – 7:1:40

5. Write a C program that checks if a positive integer is divisible by either 3 or 7, or both. If the integer is a multiple of 3, then the program will print true. Similarly, if the integer is a multiple of 7, then also the program will print true. If the integer is not a multiple of 3 or 7, then the program will print false.

6. Write a C program that checks if three given integers are in the range of 20 to 50 (inclusive) and prints true if at least one of them is within the range. If none of the integers are within the range, the program prints false.

7. A supermarket maintains a pricing format for all its products. A value N is printed on each product. When the scanner reads the value N on the item, the product of all the digits in the value N is the price of the item. The task here is to design the software such that given the code of any item N the product (multiplication) of all the digits of value should be computed(price).
Example 1:
Input :
5244 -> Value of N
Output :
160 -> Price
Explanation:
From the input above
Product of the digits 5,2,4,4
5*2*4*4= 160
Hence, output is 160.

8. Write a program to find the nth term in this series.
Consider the following example:
0, 0, 2, 1, 4, 2, 6, 3, 8, 4, 10, 5, 12, 6, 14, 7, 16, 8
   • This series is a mixture of two series.
   • All the even terms in this series are derived from the previous term using the formula (x/2).
   • All the odd terms in this series form even numbers in ascending order.
The value n in a positive integer that should be read from KEYBOARD, the nth term that is calculated by the program should be written to MONITOR. Other than the value of the nth term no other characters /strings or message should be written to MONITOR.

9. Write a program to count the total number of duplicate elements in an array.
Test Data :
Input the number of elements to be stored in the array :3
Input 3 elements in the array :
element - 0 : 5
element - 1 : 1
element - 2 : 1
Expected Output :
Total number of duplicate elements found in the array is : 1

10. Write a program in C to count the frequency of each element of an array.
Test Data :
Input the number of elements to be stored in the array :3
Input 3 elements in the array :
element - 0 : 25
element - 1 : 12
element - 2 : 43
Expected Output :
The frequency of all elements of an array :
25 occurs 1 times
12 occurs 1 times
43 occurs 1 times

11- Write a program that takes input into an integer array and then passed the array to a function. The function will calculate and display the sum of all elements in the array that are divisible by both 3 & 5. It then returns the result back to the calling function. If none of the elements is divisible by 3 & 5 then the function will return the sum of all odd values in the array.

The calling function should accordingly print the value with appropriate msg.

12. Write a program that takes input into an array of size 4 by 5 (4 rows and 5 columns), Then the program will find and display the row wise and column wise total of each row and each column separately along with the row/column number.