

**PROGRAMMING FUNDAMENTALS
LAB MID TERM EXAMS- X1- Fall 2022**

TOTAL TIME:90 Minutes

TOTAL MARKS: 40

Note:

- *There are total of two questions and each questions carry equal marks.*
- *Make use of appropriate function name, number and type of parameters and return types to get maximum marks.*

Question 1: **(20)**

Assuming that a text file named FIRST.TXT contains some text written into it, write a function named vowelwords, that reads the file FIRST.TXT and creates a new file named SECOND.TXT, to contain only those words from the file FIRST.TXT which start with a lowercase vowel (i.e., with 'a', 'e', 'i', 'o', 'u').

Sample Input File:

If FIRST.TXT contains the following:

Carry umbrella and overcoat when it rains

Sample Output File:

Then the SECOND.TXT shall contain:

umbrella and overcoat it

Question 2: **(20)**

Write C++ program for coffee shop management to help them monitor the production of five different coffee brands from five different countries. You need to define a 1d array to store each country's coffee production in tons.

Write a menu driven program to do the following tasks using functions:

- a. Read from user coffee productions in tons in array created above.
- b. A function that calculates total production of all the five countries.

- c. A function that tells which country has the minimum coffee production.
- d. A function to sort the coffee productions of countries in descending order (larger first, then second largest and so on).

Sample Run:

Please Select any of the options given below:

- 1. Input coffee productions of 5 different countries.
- 2. Calculates the total production.
- 3. Display the minimum coffee production amongst 5 countries.
- 4. Sort productions in descending order
- 5. Exit

Select Option: 1

Input coffee productions in tons: 257940 224871 2859502 423287 385786

Select Option : 2

Total production: 4151386

Select Option: 3

Minimum production: 224871

Select Option: 4:

2859502 423287 385786 257940 224871

Select Option: 5

Exiting