

## Sri Lanka Institute of Information Technology B. Sc (Hons). Degree in IT Year 1 – Semester 1 – 2020 – June Intake Introduction To Programming (IT1010) Online 3 Version B

Time: 30 min

An air line uses an array to do their seat reservations. Seats are numbered from 1 to 10. In the array, each element represents a seat number as shown below.

0	1	2	3	4	5	6	7	8	9
<b>S</b> 1	S2	<b>S</b> 3	S4	S5	S6	S7	<b>S</b> 8	<b>S</b> 9	S10

If a seat is available it is indicated by setting the array element to 0 and if a seat is reserved it is indicated by setting the array element to 1.

Write a C program to implement the above described seat reservation system.

- a) Declare an one dimensional integer array called **seat** of size 5.
- b) Initialize all the array elements to zero.
- c) Ask the user to input the seat number (1 to 10) that he/she wants to reserve. If the seat is available do the reservation. If not display a message to the user, saying that the seat is already reserved. You should read the responses until user input -1. If the user input a number less than 1 or greater than 10, display an error message.

Pls input the seat number (1-10): 2

Pls input the seat number (1-10): 5

Pls input the seat number (1-10): 2

Sorry. The seat 2 is reseved.

Pls input the seat number (1-10):7

Pls input the seat number (1-10):11

Sorry. Please input a valid seat number.

Pls input the seat number (1-10): -1

d) Display the reserved seat numbers.

Save your program as ITXXXXXX.c