BOWEN UNIVERSITYIWO, OSUN STATE
COLLEGE OF COMPUTING AND COMMUNICATIONS STUDIES
COMPUTER SCIENCE PROGRAMME
B. Sc. DEGREE SECOND SEMESTER EXAMINATION, 2022/2023 SESSION
COURSE CODE: CIT 312 COURSE TITLE: INTRDUCTION TO R-PROGRAMMING
DATE: SAT 17/06/23 TIME: 2H 30Minutes INSTRUCTION: Answer Question1 and any 3 Questions

Question 1

a) Write an R program that will create a dataframe of 10 students that contains the following: MatricNum, Name, Gender and Age. **(10 marks)**

b) A CIT student with MatricNum: BU12CIT1100 have his age stored as NA. Write an R program to remove the student data. **(3 marks)**

c) A new student has just been given matriculation number. Initially, the matriculation number has been stored as NA. Write an R program to replace NA with his matric number **(3 marks)**

d) Write an R program to create a subset of students dataframe where age is less than 20. **(3 marks)**

e) Write an R program to create address dataframe containing; HouseNum, Street, and Town, combine the dataframe with students dataframe obtained in a **(6 marks).**

Question 2

a) Write an R program to create a dataframe of all the cafeteria in Bowen. Each cafeteria should contains food, price per plate and available time **(5 marks)**

b) Write an R Program to select a cafeteria where a plate of food is 500 naira and below **(5 marks)**

c) Write an R Program to select a cafeteria where food is available by 8am **(5 marks)**

Question 3

a) Average students requires a good numbers of hours to study to pass CIT 312 course. If a student sleeps for 6hours, eat for 2 hours, attend lectures for 8hours, other things for 4hours a day. Write an R program to calculate the number of hours to study in a day **(10 marks)**

b) If he sleeps for 4hours due to late night movie, write an R Program to calculate the new hours for study on that day **(5 marks)**

Question 4

a) Every student that participate in the R Programing presentation is having 5 marks extra to their CA. if 2 out of 10 students in CIT 312 class were absent during presentation. If the CA is as follows: 10, 12, 15, 7, 9, 20, 22, 8, 10, 11, Write an R Program to create a dataframe of ten students which will include MatricNum, Name, and CA, then compute the new CA of ten students **(10 marks)**

b) Write an R program to compute their total score if they have the following in their examinations:55, 62, 30, 60, 45, 53, 32, 44, 17, 39 **(5 marks)**

Question 5

a) In a Dataset of ten students which contains names and marks obtained by each students. If 50 is the pass mark for CIT 312, the following were the score of ten student; 52, 60, 46, 70, 89, 80, 75, 09, 78, 50. Write an R program to show the status of each student as pass or fail **(10 marks)**

b) Write an R Program to indicate the student with highest and lowest score **(5 marks)**

Question 6

a) A student spent N2000 on food and N1000 on transport fare daily. Write an R program to calculate the amount required for his/her pocket money for a semester. **(7 marks)**

b) If by the middle of a semester, CIT 312 test is to hold. Write an R program to find the date of CIT312 test using today's date as resumption date. **(8 marks)**

(Note: A semester is four months)