

BOWEN UNIVERSITY IWO, OSUN STATE
COLLEGE OF COMPUTING AND COMMUNICATIONS STUDIES
INFORMATION TECHNOLOGY PROGRAM
B. Sc. DEGREE FIRST SEMESTER EXAMINATION, 2023/2024 SESSION
COURSE CODE: IFT 313 COURSE TITLE: INTRO. TO R-PROGRAMMING
TIME: 2H 30Minutes INSTRUCTION: Answer Question1 and any 3 Questions

Question 1

- a) Mention varieties of R data types **5marks**
- b) What is the effect of this command : >q() **5marks**
- c) What are the output of the following:
> x <- c(1:10)
> x > 8
> x < 5
> x > 8 | x < 5
> x[c(T,T,T,T,F,F,F,T,T)] **10marks**
- d) Write a R program for displaying this numbers in matrix of two column (1 2 4 1)
10marks
- e) If first semester exam started on 26/01/2024 and ended on 06/02/2024. Write a R program to calculate the number days of the exam. **10marks**

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, IFT 313 test is to hold. Write an R program to find the date of IFT 313 test using today's date as resumption date. (8 marks)

(Note: A semester is four months)