CRAWFORD UNIVERSITY, FAITH CITY, IGBESA

COLLEGE OF NATURAL AND APPLIED SCIENCES
DEPARTMENT OF COMPUTER AND MATHEMATICAL SCIENCES
RAIN SEMESTER **SESSION: 2018/2019**

COURSE CODE: CSC 208
COURSE TITLE: OBJECT-ORIENTED PROGRAMMING USING JAVA
UNITS: 3
TIME: 3HOURS

SECTION A (ANSWER ALL)

1a. Write a Java program that reads integers from keyboard into a two-dimensional irregular array shown below and write them out in the order k, j, i, h, g, f, a, b, c, d, e.

10marks

b. Explain the following object oriented programming concept i. Method Overloading ii. Constructor iii. Inheritance iv. Method overriding v. Abstraction. 5marks

SECTION B ANSWER ANY THREE QUESTIONS

2. a. List and explain 5 attributes of java programming language 5marks

b. Write a java method program to solve this probability density function

$$y = \begin{cases} x-1 & x>3 \\ x+9 & otherwise \end{cases}$$

5marks

c. (b) Write a java program to sum up all the leap year between 1900 to 2019 5marks

Explain the following i. Abstract method ii. Recursive method iii. Abstract class 6marks

Write java function program to find the sum of all numbers divisible by 4 between 1 to 500 inclusively.

5marks

Explain the following concept with a sample program i. Constructor ii. Interface 4marks

4 a. Write a java program to grade 200 hundred students offering 8 courses using the grading system in the able below.

Score	Grade	Grade point
70-100	A	4.0
60-69	B	3.0
50-59	C	2.0
40-49	D	1.0
0-39	F	0.0

Hint: Your output should be written into a file name called "java.txt" 10marks

Write a recursive Java method to return the factorial of any integer number 5marks

In an attempt to award MTN scholarship, you are employed as a programmer to help in selecting tudent based on their respective performance in a class of 500 students based on their java xamination score performance. Write a Java program to

a) Keep records of students' scores and their respective names
b) Filter out name and score of student whose score is below 50
c) Count the number of student whose score is below 50
d) Find the average score of student whose score is below 40
e) Display all scores divisible by 4
f) Display all scores in ascending order 10marks

b. Write a simple java program to write"I love java programming" into a file called display.txt. 5marks

Best of luck!!!!!!