TAKORADI TECHNICAL UNIVERSITY
FACULTY OF APPLIED SCIENCE
HND INFORMATION COMMUNICATION TECHNOLOGY
END OF SECOND SEMESTER EXAMINATIONS 2018/2019
COURSE: JAVA PROGRAMMING LANGUAGE (REGULAR) C

MAY 2019 **ANSWER ALL QUESTIONS** **TIME: 3 HOURS**

GENERAL INSTRUCTIONS

1. Create and name your project as **prjFullNameIndexNumber_Group**.
   Example, **prjAbeikuFrench0716060_REGULAR.**
   5 marks *will be deducted from students' marks if student does not adhere to this instruction.*

2. i. Name your package **as com.lastnameIndexNumber**.
   Example, **com.French0716060.**
   5 marks *will be deducted from students' marks if student does not adhere to this instruction.*

   ii. ***Save All your solutions inside the package created in point 2 above.5 marks will be deducted from students' marks, if student does not adhere to this instruction.***

QUESTION 1: ***(30 Marks)***
Create a class called BankAccount to implement the class structure below:

BankAccount
-String Name -String AccountNumber -String Branch -Double Balance
+withdrawCash (accountNumber, amount) +depositCash (accountNumber, amount)

Also create another class called **RunBankAccount** to implement the functions of the **BankAccount** class

QUESTION 2: ***(20 Marks)***

Write a small Java application that uses the main method to calculate the grades of students for a class of **15** students. Allow the user to type the **ALL** the examination scores before displaying the scores and the corresponding grades. Name the Class **GradesIndexNumber**, example: **Grades0716800000**

Example: after a user types say, 78, 80, 65,…, 50, your program should display the corresponding grades like this:
78 → A
80 → A
65 → B

Below is a table showing ranges of examination scores and corresponding grades.

Range	Grade
100 – 80	A
79.9 – 60	B
59.9 – 50	C
49.9 – 40	D
39.9 – 0	F

QUESTION 3: ***(10 Marks)***

Create a simple Java application that uses a static function to calculate the cost of renting a vehicle. The program will be used by a car renting company to calculate the cost of renting a car to a client. Use the function signature provided below:

public static float rentalCost (distance, NumberOfDays)

The table shows the charge per day per distance.

Distance (Km)	Charge per Day
1 – 100	500
101 – 200	800
201 – 300	1200
301 – 500	1700

Note the company does not rent cars to go distances beyond 500Km.

Name the class **CarRentalService**.