Java For Industry: Lab assignment 1

Question 1:

Write a program that print out the data of a pretend employee. You should create a variable for each piece of information, choosing the most appropriate primitive type. The output should look like the following.

```
Employee Reference
——————————————————-
ID Number: 12345
Name: “Jack Smith”
Age: 52
Salary: 27,736.80
```

[3 marks]

Enhance the program by adding two additional variables **yearsToRetirement** and **hourlyRate,** and calculate their values. Assume that Jack retires at 66 and that he works 35 hour week 52 weeks a year. **[4 marks]**

Question 2:

Using a while loop, write a program to print out the first 1000 even numbers from 0.

[2 marks]

Adapt the program to do following:

- Print out the odd number between 0-1000 **[1 mark]**
- Print out the multiples of 4 between 0 and 1000 **[2 marks]**
- Print out all the numbers between 1 and 1000. Replace all multiples of 3 with Java, all multiples of 5 with Script and all multiples of 3 and 5 with JavaScript **[4 marks]**. e.g.

1
2
Java
4
Script
Java
7

8
Java
Script
11
Java
13
14
JavaScript
16
17
Java
19
…

Question 3:

Given a salary, write a program called Tax.java to work out the tax that needs to be paid and print it to the screen, use the following tax rules:

- 0% tax on the first £15000
- 5% tax for anything over £15000 and less or equal to £30000
- 20% tax for anything over £30000 and less or equal to £50000
- 40% tax for anything over £50000

Hint: You want to work from the highest tax bracket to the lowest.

Here are some examples to test your program against:
Total tax on £60000.00 is £8750.00
Total tax on £22000.00 is £350.00
Total tax on £45500.00 is £3850.00
Total tax on £14500.00 is £0.00
Total tax on £48342.32 is £4418.46

Your output should be presented to 2 decimal places

[4 marks]

Question 4:

Using a switch statement, write a menu system that emulates a bank telephone answering service.

The main menu of the service should have the following options:
1. Current accounts.
2. Credit cards
3. Loans
4. savings accounts

A user should be able to enter the numbers and a message is displayed telling them what they have selected.

Use a do while loop so that the application re-displays the main menu if a user enters something invalid or terminates if they press h (for hang up).

[5 marks]