ICS3U Selection Assignment   22 marks

The following set of programs are to be completed by the end of class on the due date. They should be uploaded on Edsby. They are to include comments at the beginning of each program, beside each variable and at any point where it would help to clarify what the program is doing.

Round money amounts to 2 decimals.

**********20 marks programs + 2 marks comments in the program*******************

1. *********For this question you need to display a nice looking table (include horizontal "lines")**********************

    Here are the ticket prices for "Massey Movie Theater":

Category	1 ticket	2 tickets	VIP
Adult	$12.00	$23.00	$42.00
Senior	$ 8.00	$15.00	$28.00
Student	$9.00	$17.00	$32.00

    Write a program that gets the user's category (adult, senior or student (Don't ask "How old are you?")) and whether they want one ticket, two tickets or a VIP ticket. (no need to add tax) Display how much the user will need to pay.   (5 marks)

2. Write a trivia program. This program will ask the user 5 questions. After each question the user answers and the program will indicate whether it was right or wrong. After all 5 questions the computer will indicate the % correct. Your questions must be trivia, not trivial (e.g. Star Wars trivia is good, what colour is the sky, 2 + 2 = ? are both bad.) Your program should not care what case the user answers the questions in.(e.g. if the correct answer is "Massey", then "MASSEY" or "massey" or "MaSSeY" or "MAsseY" or any other combination should be accepted as correct answer!)

                                                                    (5 marks)

3.   The Personal income tax rates for Ontario are given in the table below: (5 marks)

2026 Taxable Income	2026 Tax Rates
first $53,891	5.05%
over $53,891 up to $107,785	9.15%
over $107,785 up to $150,000	11.16%
over $150,000 up to $220,000	12.16%
over $220,000	13.16%

Ask the user to enter their salary and display the amount of tax that they will need to pay (use exactly 2 decimals).

e.g. If the salary is $60 000 the user will need to pay 53891*0.0505 + (60 000 – 53891) *0.0915

4."Massey Airlines" charges passengers based on the **weight of their checked baggage**:
- **Up to 15 kg:** $20 (includes all weights up to 15 kg)
- **Up to 25 kg:** $35 (includes all weights from 15.01–25 kg)
- **After 25 kg:**
    o add **$8 for every 5 kg (or part of 5 kg)**

Example:
If a suitcase weighs **38 kg**:
- First 25 kg → $35
- Extra weight = 38 − 25 = **13 kg**
- 13 kg requires:
    o 5 kg → $8
    o another 5 kg → $8
    o remaining 3 kg (still counts as another 5 kg) → $8
Total = **$35 + $8 + $8 + $8 = $59**   (5 marks)