NAME   : _____

STUDENT NO.   : _____

GROUP   : _____

QUESTION 1

You are given the following requirements:

(a)   Your program can read two inputs from the keyboard, which are the amount of investment and profit.

(b)   If the investment is more than or equal to RM50, 000 and the profit is more than RM20, 000, then the following message is displayed: "*This investment is worthy to continue.*"

(c)   Otherwise, display the following message: "*This investment is a waste of money.*"

Write a program in C++ based on the above requirements.

QUESTION 2

You are given the following requirements:

(a)   Your program can read the amount of sales for a sale executive.

(b)   If the sale is more than RM10, 000, then the commission will be 5% of the sale. Otherwise, the commission is only 3% of the sale.

(c)   Your program can calculate the amount of commission by multiplying the percentage of commission with sale.

(d)   Your program is also able to display the amount of commission to the sale executive.

Write a program in C++ based on the above requirements.

QUESTION 3

A supermarket in your town wants to organize another anniversary sale. The owner of the hypermarket wants you to write a program for him to help the cashier to calculate and display the payment after discount based on the conditions given in table provided below:

Amount (RM)	Discount (%)
300 - 1000	5.5
Above than 1000	6.5

The formulas for the calculation are as follow:

Discount (RM) = Discount (%) x Amount (RM)

Payment after discount = Amount (RM) − Discount (RM)

LESSON 1: MULTIPLE WAY SELECTION

There are several ways to write the C++ statements for multi-way selection:

(i)   using several `if` statement
(ii)   using linear multi-way `if_else if` statement
(iii)   using `switch` statement

Example:

Write a program using if statement to determine the grade received based on the score entered as shown below:

Score Status	Display message
>= 90	Grade A
>= 80	Grade B
>= 70	Grade C
>= 60	Grade D
< 60	Grade F

Using several `if` statement	Using linear multi-way `if_else if` statement

<pre>#include<iostream>
using namespace std;
 	
int main()
{
    float score;
    cout<<"Enter the score: ";
    cin>>score; //86
 	
    if (score >= 90)
        cout<<"\nGrade is A"<<endl;
    if (score >= 80 && score < 90)
        cout<<"\nGrade is B"<<endl;
    if (score >= 70 && score < 80)
        cout<<"\nGrade is C"<<endl;
    if (score >= 60 && score < 70)
        cout<<"\nGrade is D"<<endl;
    if (score < 60)
        cout<<"\nGrade is F"<<endl;
 	
    system("pause");</pre>
	<pre>#include<iostream>
	using namespace std;
	
	int main()
	{
	    float score;
	    cout<<"Enter the score: ";
	    cin>>score;
	
	    if (score >= 90)
	        cout<<"\nGrade is A"<<endl;
	    else if (score >= 80)
	        cout<<"\nGrade is B"<<endl;
	    else if (score >= 70)
	        cout<<"\nGrade is C"<<endl;
	    else if (score >= 60)
	        cout<<"\nGrade is D"<<endl;
	    else
	        cout<<"\nGrade is F"<<endl;
	
	    system("pause");</pre>

`    return 0;` `}`	`    return 0;` `}`

QUESTION 1

One local bank in town gives dividend rates to the investors. Below is the table which shows the dividend rates for one month. Write a program that can read the investment from the keyboard. Your program should be able to calculate and display the dividend in Ringgit Malaysia within dividend rate.

Investment (RM)	Dividend Rate (%)
Up to RM5, 000	0.20
Up to RM10, 000	0.30
Up to RM30, 000	0.80
Up to RM50, 000	1.00
Up to RM75, 000	1.10
Above to RM75, 000	1.30

QUESTION 2

You are given the following requirements:

(a)   Your program can read the item code from the keyboard.

(b)   The item code determines the price for each item in the shop. The following table shows the prices and charges of 7 items in the shop.

Item code	Price (RM)	Charge (%)
A	54.00	5
B	65.00	5
C	82.00	5
D	103.00	7
E	150.00	7
F	245.00	10
G	250.00	10

(c)   If the item code is not matched, an error message is displayed as follows:

        `Error, this item is not in the list.`

(d)   For each selected item, the charge is calculated by multiplying the item price with the charge rate.

(e)   Then the payment is a summation of item price and charge. Your program is to display the payment.

> :: Multiple selection based on more than one variable ::
>
> This type of selection is also called a **nested if → if** statement within another **if** statement.

QUESTION 1

Complete the given program in C++ based on the given comments.

```cpp
#include<iostream>
using namespace std;
#define size 30

int main()
{
    //1) input 2 names

    //2)  input  2  integer  numbers  to  represent  the  age  of  the  2
individuals

    //3) determine who is older
    cout<<endl;

    //4) determine whether the names entered are the same name or not.
    //if the names are not the same, display the longer name.
    cout<<endl;

    cout<<endl;
    system("pause");
    return 0;
}
```

QUESTION 2

Write a complete program in C++ to determine the amount of scholarship a person gets based on the given table:

Program	CGPA	Amount (per year)
Diploma	Less than 3.00	RM 5,000
Diploma	3.00 and more	RM 7,000
Bachelor	Less than 3.3	RM 6,000
Bachelor	3.3 and more	RM 10,000