



**FACULTY OF ENGINEERING  
SCHOOL OF COMPUTING**

**SUBJECT:**  
SECJ 1013 - 05 (PROGRAMMING TECHNIQUE I)  
SEMESTER 1, 2020/2021

**ASSIGNMENT 2**

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## Section A

1. Ans : False

Reason : Case 2 without the break statement, when the account falls under option 2, the interest of the program will show 2.6 then follow by 2.9 or 0.0 by default. The value of the interest will be automatically replace by the previous one when new value stored in the variable. Therefore, the program will follow the latest value that is assigned to the variable.

Example : if it is case 3, the value of the interest would be :

Interest = 2.6  
Interest = 2.9 → the value of the interest is overwritten

2. Ans : True

Reason : The value of y is smaller than x and the variable that assigned to it is int which does not include decimal. When x is divided y (y/x), the answer which is 0.6667 will automatically change to 0.

3. Ans : False

Reason : Terminate () is automatically called when an exception occurs that cannot be handled. The exit() function causes a program to terminate, regardless of which function or control mechanism is executing.

4. Ans : True

Reason : Because the static int of variable a will cause variable a to remain as 15 after the call(5).

## Section B

### **Answer 1(a):**

```
#include <iostream>
using namespace std;
int main()
{
    // initialize x to a dummy value
    char x = 'n';
    cout << "Enter 'y' or non-'y': " << endl;
    cin >> x;
    // write the output using the ?: operator
    x == 'y'? cout << "If 'y', answer is = 1" : cout << "Else, answer is = 0";
    cout << endl;
    system("pause");
    return 0;
}
```

### **Answer 1(b):**

```
#include <iostream>
using namespace std;

int main()
{
    double balance, deposit, withdraw;
    char letter;
    balance = 300;

    cout << "Enter your transaction code, d - deposit, w - withdraw : " << endl ;
    cin >> letter;

    switch (letter)
    {
        case 'd' : cout << "Enter amout RM";
            cin >> deposit;
            balance += deposit;
            break;
        case 'w' : cout << "Enter amout RM";
            cin >> withdraw;
            balance -= withdraw;
            break;
        default : cout << "The code is not invalid.\n";
    }

    cout << "Your current balance is now RM " << balance << endl;
    return 0;
}
```

**Answer 2(a):**

```
#include <iostream>

using namespace std;

int main()
{
    int a,x=0;

    do{

        cout<<" please enter a number in the range of 1 though 4: ";
        cin>> a;
    }
    while(!((a>=1) && (a<=4)));

    switch (a)
    {
        case 1 :case 2 : x++; break;
        case 3 :case 4 : x--; break;
        default: cout <<x+=2; break;
    }

    cout<<x;
    system ("PAUSE");
    return 0;
}
```

**Answer 3(a):**

```
void PA(int &a, double &b , double &c, double &d)
{
    cout << "Please enter number of days spent: ";
    cin>> a;

    cout << "Please enter daily room rate: ";
    cin>> b;

    cout << "Please enter medication charges: ";
    cin>> c;

    cout << "Please enter service charges: ";
    cin>> d;

}
```

**Answer 3(b):**

```
char patient;

double charge(int day, int rate, double Mcharge, double Scharge)

{

    double total_charge = day*rate+Mcharge+Scharge;

    return total_charge;

}

double charge(double Mcharge, double Scharge)

{

    double total_charge=Mcharge+Scharge;

    return total_charge;

}
```

**Answer 4(a):**

3

**Answer 4(b):**

6 12

0 0 0

Enter two numbers: 12 14

12 14 0

14 15 -1

16 15 -1

14 15 -1

**Answer 4(c-i):**

```
int input()
{
    int emp;
    cout<<"Enter number of employee : ";
    cin>>emp;
    return emp;
}
```

**Answer 4(c-i):**

```
int totalDay(int emp)
{
    int day, total_day;
    for(int i=1;i<=emp;i++)
    {
        cout<<"enter the number of days employee "<<i<<" absent during the past year : ";
        cin>>day;
        total_day+=day;
    }
    Return total_day;
}
```

**Answer 4(c-i):**

```
double calcAvg(int emp,int total_day)
{
    double avg = total_day/emp;
    return avg;
}
```

