

Q2 (a):

- Steps that involve precise sequence to solve a problem is called
 - Statement
 - Program**
 - Utility
 - Routine
- In an if structure statements are executed only,
 - When the condition is false
 - When it contain arithmetic operators
 - When it contain logical operators
 - When the condition is true**
- Which of the following can not be a variable name?
 - area
 - _area**
 - 10area
 - area2
- Which loop process is best when the number of iterations is known?
 - for**
 - while
 - again
 - all looping processes require that
- Which special character is in the end of a string to indicate the end?
 - new line
 - tab
 - null**
 - carriage return
- A total of **21+1=22** bytes are occupied by the following variable.
txt = "programming fundamentals"
- Commenting the code _____
 - Makes a program easy to understand for others.**
 - Make programs heavy, i.e. more space is needed for executable.
 - Makes it difficult to compile
 - All of the given options

Q1 :(a) Write a program in python where you input two integer values from user and determine if the first integer is the multiple of the second integer.

```
num1=int(input("first integer: "))
```

```
num2=int(input("second integer: "))
```

```
mul=num1*num2;
```

```
print(" product of given integer is: ",mul)
```

out put

```
first integer: 12
```

```
second integer: 12
```

```
product of given integer is 144
```

Q1:(b)Write a program in python for a shopping mall to determine if the customer has exceeded the credit limit on a charge account.

Program should input the following facts in five variables

Account number

Balance at the beginning of month (Beginning balance)

total of all items charged by customer this month (charges)

total of all credits (credits)

allowed credit limit

Calculate the new balance

New balance = Beginning balance + charges – credits

Your program must determine if the new balance exceeds the allowed credit limit. If credit

limit is exceeded then program should display the message "Credit Limit exceeded."

```
Account number( "%f", Account number & );  
printf( " Account number: " );
```

```
Beginning balance ( "%f", &beginningBalance );  
print( " Beginning balance: " );
```

```
charges ( "%f", &Charges );  
printf( " charges: " );
```

```
Credits ("%f", &Credits );  
printf( " credits: " );
```

```
allowed credit limit( "%f", &allowedcreditLimit );  
printf( "allowed credit limit: " );
```

```
Account number = beginningBalance + Charges - Credits;  
if ( accountBalance > creditLimit )
```

```
printf( " accountNumber:\t%d\n", accountNumber );
```

```
printf( " Beginning Balance:\t%.2f\n", Beginning tBalance );  
printf( "Credit :\t%.2f\n", credit );  
printf( "Credit limit exceeded.\n" );
```

Out put

(Credit Limit exceeded)

Q3:(a)Write a program in python that will create and display the following series in the output using the formula $2x^2 - 3x$:
65, 44, 27, 14, 5, 0, -1, 2, 9, 20

```
def function( num ):  
    return 2*(num**2) - 3*num  
  
if __name__ == '__main__':  
    Array=[64 ,44 ,27 ,14 ,5, 0, -1 ,2 ,9 ,20 ]  
  
    for i in array:  
        Print ( function (i), end = " " )
```

Out put

8000 3740 1377 350 35 0 5 2 135 740

Q3 (b) You have the following python code, draw the flow chart of the whole code

```
numbers = range(10,20)
sum = 0
for i in numbers:
    sum = sum + i
print("Total Sum = ", sum)
```

