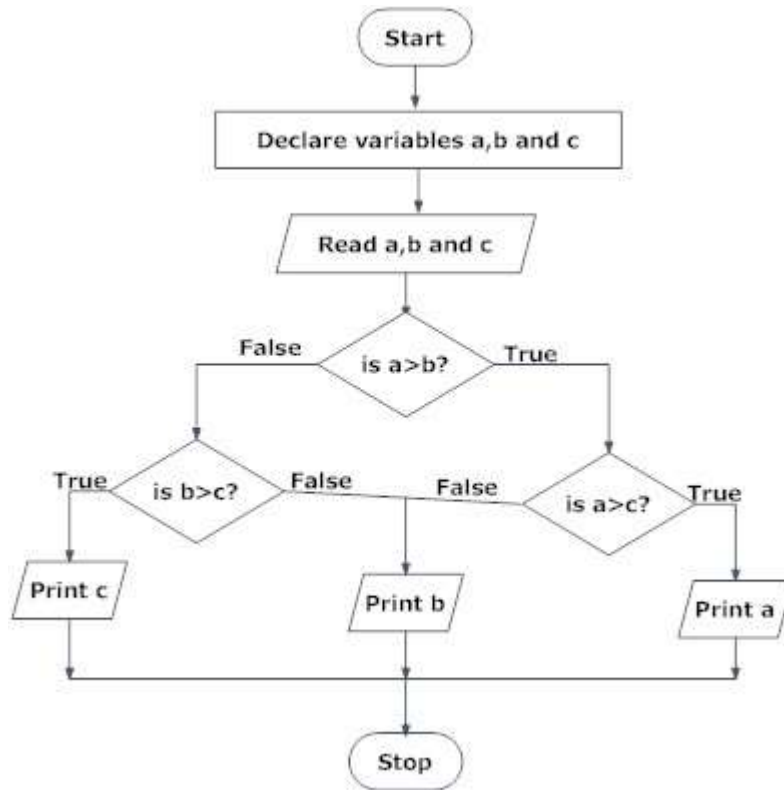


General Instructions:

- All questions are compulsory
- Question Paper is divided into 2 sections A and B
- Section A: Introduction of Computer System
- Section B: Introduction Python Programming

Section A		
Q. 1		10 M
a)	Full form of ROM is _____	1
b)	Transistors were used in which generation of computer? a) First b) Second c) Third d) Fourth	1
c)	What is the role of CMOS battery in a computer system?	1
d)	Write down two functions of an Operating System. OR Write down an example of each: Single User Single Task OS and Single User Multitask OS	1
e)	What are the two advantages of using Unicode over ASCII?	1
f)	Write any two memory units. OR Write the names of the subunits of CPU.	1
g)	Differentiate between DRAM and SRAM.	2
h)	Convert the following: a) $(10010)_2 \rightarrow ()_{10}$ b) $(1A2B)_{16} \rightarrow ()_{10}$ c) $(247)_8 \rightarrow ()_2$	3
Section B		
Q.2		10 M
a)	_____ are reserve word of the compiler/interpreter which can't be used as identifiers.	1
b)	What is an interpreter? OR What is a compiler?	1
c)	What kind of applications can be created using Python?	1
d)	\t is _____, "Hello\tWorld" will put _____ between two strings.	1

e)	Write down the rules for valid identifiers. OR What kind of identifiers are invalid? Demonstrate using the examples.	2
f)	What are literals in python? Write down the example of two kinds of Numeric Literals.	2
g)	Write down two types of comments in python along with the example.	2
Q.3		10 M
a)	Modules operator has higher precedence then Addition. Is that true or false?	1
b)	+= is which category of operator? What will be the final value of a, if a=5 initially and then a+=10 is executed?	1
c)	Write down the name of any four data types in python. OR Identify the following data types: a) 56.32 b) True c) -124 d) '124'	2
d)	Differentiate between Implicit and Explicit type conversion with example.	3
e)	Convert the following into python expression: a) $\sum_{i=1}^3 4$ b) $\frac{x^3}{\sqrt{y}}$ OR Convert the following into mathematical formula: a) $e^{((2*y)^{.5})}$ b) $(-b + (b^2 - 4*a*c)^{.5}) / (2*a)$	3
Q.4		14M
a)	What are the differences between if and else?	1
b)	What is wrong with the following code? a=51 if(a%3==0): print(a is div by 3) else print("a is not div by 3")	1
c)	From a number input by the user check if it is positive or a negative number. OR From a number input by the user check if it is evrn or odd number.	2
d)	Write down the program for the following floachart:	3



e) A dishonest dealer professes to sell his goods at Cost Price, but he uses a weight of 960 gm for the kg weight. Find his gain percentage using the python program.
OR
Write down the algorithm to find if a three digit number is a palindrom or not.

f) Take in the Marks of 5 Subjects (out of 100) and Display the percentage marks and the division based on the table given below.

Q.5 15M

a) Write a program to calculate the factorial of a number. 2

b) Compare for loop with while loop. Use syntax and example to compare. 2

c) 1. Convert the following into a python program: 3

- Start
- Declare variables i, a, b, show
- Initialize the variables, a=0, b=1, and show =0
- Enter the number of terms of to be printed
- Print First two terms of series
- Use loop for the following steps

	<p>-> show=a+b -> a=b -> b=show -> increase value of i each time by 1 -> print the value of show</p> <ul style="list-style-type: none"> • End <p>2. What will be output if number of terms = 7 ?</p>			
d)	<p>Find the output of the following:</p> <table style="width: 100%; border: none;"> <tr> <td style="width: 50%; vertical-align: top;"> <p>1. x = 1 y = 5 sum = 10 for i in range(1,y+1,2): sum = sum + x x=x+1 print(sum)</p> </td> <td style="width: 50%; vertical-align: top;"> <p>2. m,n=40,20 while m>n: m = m % 7 n = n//2 print(m,n)</p> </td> </tr> </table>	<p>1. x = 1 y = 5 sum = 10 for i in range(1,y+1,2): sum = sum + x x=x+1 print(sum)</p>	<p>2. m,n=40,20 while m>n: m = m % 7 n = n//2 print(m,n)</p>	4
<p>1. x = 1 y = 5 sum = 10 for i in range(1,y+1,2): sum = sum + x x=x+1 print(sum)</p>	<p>2. m,n=40,20 while m>n: m = m % 7 n = n//2 print(m,n)</p>			
e)	<p>Draw the following patterns using loops.</p> <pre> 1 1 2 1 2 3 1 2 3 4 </pre> <p style="text-align: center;">or</p> <p>Find the output of the following:</p> <pre> k = 0 rows = 4 for i in range(1, rows+1): for j in range(1, (rows-i)+1): print(end=" ") while k != (2*i-1): print("* ", end="") k = k + 1 k = 0 print() </pre>	4		
Q.6		11M		
a)	<p>Find the output of the following:</p> <pre> s = 'One ring to rule them all.' print(s[1:-1]) print(s[:3]) print(s[13:]) print(s[1::2]) print(s[::-1]) </pre>	5		
b)	Write down one method of each: List,String and Dictionary. (Include example)	3		
c)	<p>Explain any three String handling function used in python programming.</p> <p style="text-align: center;">OR</p> <p>How del() is different from pop()? Write a programme in python to delete all even numbers from a list.</p>	3		