Maximum Marks: 70   **Time Allowed: 3 hours**

General Instructions:

1. This question paper contains two parts A and B. Each part is compulsory.

2. Both Part A and Part B have choices.

3. Part-A has 2 sections:

a. Section – I is short answer questions, to be answered in one word or one line.

b. Section – II has two case studies questions. Each case study has 4 case-based subparts. An examinee is to attempt any 4 out of the 5 subparts.

4. Part - B is Descriptive.

5. Part- B has three sections

a. Section-I is short answer questions of 2 marks each in which two question have internal options.

b. Section-II is long answer questions of 3 marks each in which two questions have internal options.

c. Section-III is very long answer questions of 5 marks each in which one question has internal option.

6. All programming questions are to be answered using Python Language only.

7. Write the marks alloted to the question just before you begin writing your answer/solution Ex :-
Answer 11 → 2 marks

QNo	Part-A	Marks
	Section-I	
	Select the most appropriate option out of the options given for each question.	
	Attempt any 15 questions from question no 1 to 21.	
1	Smallest unit of memory is_____.	1
2	1GB=_____KB	1
3	Name one computer OS and one mobile OS.	1
4	Which memory is used to store temporary results?	1
5	Name any two language processors.	1
6	Convert $(1001)_2$=(_____$)_{10}$	1
7	Convert$(100101)_2$=(_____$)_8$	1
8	Make Truth table for AND logic.	1
9	Find the invalid identifier from the following a) MyName b) True c) 2ndName d) My_Name	1
10	Identify the valid arithmetic operator in Python from the following. a) ? b) < c) ** d) and	1
11	Identify the valid declaration of L: L = ['Mon', '23', 'hello', '60.5'] a. dictionary b. string c.tuple d. list	1
12	If the following code is executed, what will be the output of the following code? name="ComputerSciencewithPython"	1

	print(name[3:10])	
13	Name two keywords.	1
14	Why we use int().	1
15	Which function of python is used to print messages.	1
16	Name two Boolean operators.	1
17	Write output: print(15+20/5+3*2-1)	1
18	Write one line of difference between = and ==	1
19	How many times will a loop (for c in range(5):) execute statements in it's body?	1
20	How is a subset of a string obtained?	1
21	Name two modes of writing a program in python.	1
	Section-II **Both the Case study based questions are compulsory. Attempt any 4 sub parts from each question. Each question carries 1 mark**	
22	**Thoroughly study this image of a computer and give answers of following questions.** View basic information about your computer Windows edition Windows 7 Professional Copyright © 2009 Microsoft Corporation. All rights reserved. Service Pack 1 Get more features with a new edition of Windows 7 System Manufacturer: Dell Rating: 5.7 Windows Experience Index Processor: Intel(R) Core(TM) i3-2330M CPU @ 2.20GHz 2.20 GHz Installed memory (RAM): 4.00 GB System type: 64-bit Operating System Pen and Touch: No Pen or Touch Input is available for this Display Computer name, domain, and workgroup settings Computer name: Dell-PC Full computer name: Dell-PC Computer description: Workgroup: WORKGROUP Windows activation Windows is activated Product ID: 00371-OEM-8992671-00524	
	a) Which operating system is installed in this system?	1
	b) What is the size of RAM?	1
	c) Name the processor of this system?	1
	d) What is the CPU speed?	1
	e) What is the size of OS?	1

23.	**Thoroughly study this code snippet and give answers of following questions.**	
| | ```
'''PROGRAM TO CHECK GIVEN NUMBER IS PRIME OR NOT
   THIS CODE IS WRITTEN FOR CASE STUDY ONLY'''
#THERE ARE MANY WAYS TO WRITE A PROGRAM!!BUT TRY TO WRITE THE MOST FEASIBLE CODE
n=int(input())
flag=0
for i in range (2,(n//2+1)):
    if (n%i==0):
        flag=1
        break
if(flag==0):
    print("Number is Prime")
else:
    print("Number is not Prime")
``` | |
	a) Label multiline comment.	1
	b) Label single line comment.	1
	c) Label functions.	1
	d) Write down different variable names used in the code	1
	e) Which control flow statement is used in this code.	1
Part – B **Section-I**	
24	Differentiate Compiler and Interpreter.	2
25	Name default input and output device for python language processor. **Or** Describe the memory unit of a computer system in brief.	2
26	Define a)ASCII b)UNICODE	2
27	Write a Program to display the statement given below in two different lines. "I am using Pyhon" and "it's my first assignment" **Or** What is the output/error of following statements. Sum=10+'10' printNt("Hello python!")	2
28	State the output of following code. X=4.6 Y=15 Z=X//Y Z1=X/Y print(Z,Z1)	2
29	What will be the output of the expression also explain precedence used in the expression. 4*1**2	2
30	Differentiate "break" and "continue"	2
31	Convert the following for loop into while loop. for a in range(1,50): print(a)	2
32	Find the errors in the following program.	2

	count=0
	s=0
	while count<10:
	s += count
	   count=count+1
	   print(s)	

33	What is String? justify your answer that string is immutable.	2
	Section- II	
34	Explain Von-Neumann Architecture of computer with diagram?	3
35	Write a Python script to print factorial of a given number. **Or** Write a Python script to print Fibonacci Series.	3
36	Write a Python script to print largest among three numbers.	3
37	Write a Python script to count number of vowels in a given sentence(String). **Or** Explain the various methods to test if the string entered contain digits or alphabets or alphanumeric.	3
	Section-III	
38	Write a Python script to prompt a user to read the marks of five different subjects. Calculate the total marks and percentage of marks and display the message according to the range of percentage given in table. | Percentage	Message | |---|---| | Per>=90 | Distinction | | Per>=80 and per<90 | First Class | | Per>=70 and per<80 | Second Class | | Per>=60 and per<70 | Third class | | Per<60 | Fail |	5
39	Write a python script that asks for input n (a positive integer) and prints a sequence of powers of x(any number) from x^0 to x^n in separate lines. For example if x=5 and n=4 Then output must be 1 5 25 125 625	5
40	Consider a scenario where a son eats five chocolates every day. The price of each chocolate it different. His Father has to pay the bill to chocolate vendor at the end of every week. Develop a program that can generate the bills for the chocolate. Also state which loop will be used to solve the problem. **Or** Write a Python script to read a word and print the word that repeats itself based on number of letters in the word and reverse of the word.	5

_____END_____