



S.NO	SECTION-A
1	a) Arrange the memory units from smallest to biggest : Giga Byte, Kilo Byte, Tera Byte, Megabyte, Peta Byte b) What is SoC? c) Explain the function of control unit d) Write one difference between RAM and ROM e) What is the role of power management unit of a mobile system? f) Explain a) Utility software b) Compiler
2	a) Draw the logic circuit diagram for $x'y + xy'z$ b) Give the duals for the following expressions: i) $A.B' + C'.A' = 1$ ii) $(P'+Q) .R'S' = 0$ c) State and prove the D’Morgans laws using truth table
3	a) Define Unicode. b) Convert 746.12 from decimal to binary. c) Add the binary numbers 10111 and 11011 d) Convert the following as instructed : i) $(4FB)_{16} = ()_2$ ii) $(452)_8 = ()_{16}$ e) Draw a flow chart to print smallest of three numbers
4	a) What are keywords in Python? b) What will be output of following statement: (i) <code>>>> 2<3</code> (ii) <code>>>>FALSE+4</code> c) What will be the output produced by following code? <code>a,b,c,d =9.2 , 2.0</code> <code>print (a/2)</code> <code>print(a//4)</code> d) Define identifiers. Identify the valid and invalid identifiers in the following list. i) xy1z ii) x_abc1 iii) 1abc_d3 iv) continue e) What is the output produced by the following code? <code>x=1</code> <code>if x>3:</code> <code>if x>4:</code> <code>print(A, end="#")</code> <code>else:</code> <code>print(B, end="@")</code> <code>elif x<2:</code> <code>if (x!=0):</code> <code>print(C, end="&")</code>

	<p><code>print(D_</code></p> <p>f) Construct logical expression to represent the following condition:</p> <p>(i) Height is greater than or equal to 115 but less than 125</p> <p>(ii) Donation is in range 4000-5000 or guest is 1</p>
5	<p>a) What are the values used in <code>range(6,2,-1)</code> function in a for loop?</p> <p>b) The below python code causes an error. Name the error and also how to rectify it:</p> <pre>>>>P='Abc'+1</pre> <p>c) Write the output for the following code:</p> <pre>N=10 ans=40 while N>1: ans=ans+n**2 N=N-3 print (ans)</pre> <p>d) Find the errors in the following code if any and correct code by rewriting code and underline the corrections :</p> <pre>x=int("Enter a number: ") for in range [0,8]: if x=y: print(x+y) else if y>6: print(x-y)</pre> <p>e) Write a program to input a number and check whether it is divisible by 5 or 7</p> <p>f) i)Write the following program using while loop.</p> <pre>for i in range(1,16): if i%3 == 0 : print(i)</pre> <p>ii)Convert the following FOR loop into WHILE loop :</p> <pre>for k in range (10,20,5): print (k)</pre>
6	<p>a) Given the following code, write the output:</p> <pre>a=4 b=2 for i in range(1,a): for j in range (b): print (i,j,i+j) print()</pre> <p>b) WAP to print the following using nested loop</p> <pre>2 2 4 2 4 6 2 4 6 8</pre> <p>c) What is the difference between an error and exception? Name any two exceptions in python</p>

	<p>d) Why lists are called mutable explain with an example. Write the output of the following :</p> <pre>X=['P','Y','T','H','O','N'] for I in X: print (I) for k in range(0,len(X),2): print (X[k],end="\$\$\$") print X[-3] print X[4]</pre>										
<p>7</p>	<p>a) Write a Python program to input an integer N from the user. Check whether it is prime number or not and print the same.</p> <p>b) Write a program to input the wage and NOH(number of hours worked) of a person. Calculate the salary as wage*NOH. The incentive is calculated as per the following criteria:</p> <table border="0"> <thead> <tr> <th>salary</th> <th>incentive</th> </tr> </thead> <tbody> <tr> <td>> 1000</td> <td>10% of salary</td> </tr> <tr> <td>500-999</td> <td>8% of salary</td> </tr> <tr> <td>250-499</td> <td>5% of salary</td> </tr> <tr> <td><250</td> <td>Nil</td> </tr> </tbody> </table> <p>Calculate the net salary as salary+ incentive and print the same</p> <p>c) Write a program to input a number. Check whether it is Armstrong number. (An Armstrong number is one which has sum of cubes of digits is equal to itself. Eg $153=1^3+5^3+3^3$)</p>	salary	incentive	> 1000	10% of salary	500-999	8% of salary	250-499	5% of salary	<250	Nil
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<p>End of the Question Paper</p>											