



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

	<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>&gt;&gt;&gt;P='Abc'+1</pre> <p>c) Write the output for the following code:</p> <pre>N=10 ans=40 while N&gt;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&gt;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><b>salary</b></th> <th><b>incentive</b></th> </tr> </thead> <tbody> <tr> <td>&gt; 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>&lt;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 <math>153=1^3+5^3+3^3</math>)</p>	<b>salary</b>	<b>incentive</b>	> 1000	10% of salary	500-999	8% of salary	250-499	5% of salary	<250	Nil
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<p><b>End of the Question Paper</b></p>											