

**KENDRIYA VIDYALAYA SANGATHAN : HYDERABAD REGION**

**SUBJECT : COMPUTER SCIENCE - CLASS 12**

**STUDY MATERIAL PREPARATION**

SNO	NAME OF THE TEACHER	KV	TOPIC ALLOTTED
1	Mr PRABODH DINAKAR	SURYALANKA	<b>REVISION OF PYTHON TOPICS COVERED in Class XI.</b>
<b>MULTIPLE CHOICE QUESTIONS</b>			
1	Find the valid identifier from the following 1. 2_Myname 2. My name 3. True 4. Myname_2 Answer is:4		
2	Which of the following will give output as [23,2,9,75] .If L=[6,23,3,2,0,9,8,75] 1. print(list1[1:7:2]) 2. print(list1[0:7:2]) 3. print(list1[1:8:2]) 4. print(list1[0:8:2]) Answer is:3		
3	Which of the following operator can be used with string data type? 1. **            2. %            3. +            4. / Answer is:3		
4	Consider a tuple T = (10, 15, 25, and 30). Identify the statement that will result in an error. 1. print(T[2])    2. T[3] = 19    3. print(min(T))    4. print(len(T)) Answer is: 2		
5	Which of the following symbol is used in Python for Multiline comments line comment? 1. /***            2. /*            3. '''            4. # Answer is:		
6	Identify the output of the following Python statements.		

	<pre>x = [[10.0, 11.0, 12.0],[13.0, 14.0, 15.0]] y = x[1][2] print(y)</pre> <p>1. 12.0                    2. 13.0                    3. 14.0                    4. 15.0</p> <p>Answer is: 3</p>
7	<p>Identify the output of the following Python statements.</p> <pre>L= [10, 15, 20, 25, 30] L.insert( 3, 4) L.insert( 2, 3)  print (lst1[-5])</pre> <p>1. 2                    2. 3                    3. 4                    4. 20</p> <p>Answer is:2</p>
8	<p>Which of the following properly expresses the precedence of operators (using parentheses) in the following expression: <math>5*3 &gt; 10</math> and <math>4+6==11</math></p> <p>1. <math>((5*3) &gt; 10)</math> and <math>((4+6) == 11)</math> 2. <math>(5*(3 &gt; 10))</math> and <math>(4 + (6 == 11))</math> 3. <math>(((((5*3) &gt; 10)</math> and <math>4)+6) == 11</math> 4. <math>((5*3) &gt; (10</math> and <math>(4+6))) == 11</math></p> <p>Answer is : 1</p>
9	<p>What will be the output of the following Python code?</p> <pre>i = 1 while True:     if i%007 == 0:         break     print(i)</pre>

	<pre>i += 1</pre> <p>1. 1 2 3 4 5 6</p> <p>2. 1 2 3 4 5 6 7</p> <p>3. error</p> <p>4. none of the mentioned</p> <p>Answer is: 1</p>
10	<pre>values = [1, 2, 3, 4] numbers = set(values)  def checknums(num):     if num in numbers:         return True     else:         return False  for i in filter(checknums, values):     print i</pre> <p>1. 1 2 3 4    2. 1 2    3. 3 4    5. 2 3 4</p> <p>Answer is:1</p>
<b>CASE STUDY QUESTIONS (R)</b>	
1	<p>Based on the following code answer the questions</p> <pre>import _____ #1  AR=[20, 30, 40, 50, 60, 70]  FROM=random.randint(1, 3)</pre>

	<pre>TO=random.randint(2,4) for K in range(FROM,TO+1):     print (AR[K],end="#")</pre> <p>1. What module should be imported To execute the above code #1? (I) math (II) random (iii) pickle (iv) csv Answer is: ii</p>
2	<p>What will Be the maximum value of the variables FROM and TO? (i) 3,4 (ii) 4,3 (iii) 2,4 (iv) 4,2 Answer is : I</p>
3	<p>What will Be the minimum value of the variables FROM and TO? (i) 2, 1 (ii) 1, 2 (iii) 1, 3 (iv) 1, 4 Answer is: ii</p>
4	<p>What possible outputs(s) are expected to be displayed on screen at the time of execution of the program? (i) 10#40#70# (ii) 30#40#50# (iii) 50#60#70# (iv) 40#50#70# Answer is: ii</p>
5	<p>What will be the output of random.random ( ) (i) 2 (II) 3.2 (iii)0.82 (iv) -0.32 Answer is : ii</p>
6	<p>Ramu write a list program as shown below .based on the code answer the questions</p> <pre>data = [[[1, 2], [3, 4]], [[5, 6], [7, 8]]] #1 def fun(m):</pre>

	<pre>print(m)          #2 v = m[0][0] print(v)          #3 for row in m:     for element in row:         if v &lt; element:             v = element return v print(fun(data[0]))          #4</pre> <p>(1) The declaration of the LIST data is called (i) Local (ii) Global (iii) local and global (iv) none of the above Answer is : 2</p>
7	<p>What will be printed after execution of the line #2 ?</p> <p>(i) [1,2] (ii) [[1, 2], [3, 4]] (iii) [[5, 6], [7, 8]] (iv) [5,6]</p> <p>Answer is:ii</p>
8	<p>What will be printed after execution of the line #3 ?</p> <p>(i) 4 (ii) 5 (iii)2 (iv)1</p> <p>Answer is: iv</p>
9	<p>What will be last line of the output after execution of the line #4 ?</p> <p>(i) 4 (ii) 5 (iii)2 (iv)1</p> <p>Answer is: i</p>
10	<p>What will be the last line of the output of the above code, if line #4 is replaced with print (fun (data (1)) ?</p> <p>(i) 8 (ii) 5 (iii)2 (iv)1</p> <p>Answer is: i</p>

SNO	NAME OF THE TEACHER	KV	TOPIC ALLOTTED
2	Mr SANDEEP UPADHAY	KANCHANBAGH	<b>Functions: types of function (built-in functions, functions defined in module, user defined function creating user defined function, arguments and parameters,</b>

### MULTIPLE CHOICE QUESTIONS

1	<p>Which one is not the feature of Python function</p> <p>(a) Modularity (b) Reusability (c) Simplicity (d) difficult to find error</p> <p><b>Ans (d)</b></p>
2	<p>What is the use of id() function in python?</p> <p>(a) returns the data type of object (b) returns the size of the the object (c) returns the identity of object (d) None of the above</p> <p><b>Ans: (c)</b></p>
3	<p>Natasha is working in Python program which is function oriented. She is using the functions already available in python. These functions are called:</p> <p>(a) User defined functions (b) In-built functions (c) module functions (d) reusable functions</p> <p><b>Ans: (b)</b></p>
4	<p>Select which is false for Python function</p> <p>(A) A Python function can return only a single value (B) A function can take an unlimited number of arguments. (C) A Python function can return multiple values (D) Python function doesn't return anything unless and until you add a return statement</p> <p><b>Ans (A)</b></p>
5	<p>Pick one the following statements to correctly complete the function body in the given code snippet.</p> <pre>def f(number):     # Missing function body     print(f(5))</pre> <p>(a) return "number" (b) print(number)</p>

	<p>(c) print("number") (d) return number</p> <p><b>Ans (d)</b></p>
6	<p>Consider the following program. What is the correct flow of execution of statements:</p> <pre> 1     def fun1(m, n): 2         c=m+n 3         print(c) 4         Return c 5     x = 10 6     y = 20 7     fun1(x,y) 8     print("OK") </pre> <p>(A) 1,2,3,4,5,6,7,8                      (B) 5,6,7,1,2,3,4,8 (C) 5,6,1,2,3,4,7,8                      (D) 7,8,1,2,3,4,5,6</p> <p><b>Ans (B)</b></p>
7	<p>What is the maximum and minimum value of z in following program:</p> <pre> import random x = random(2,6) y = random(1,2) z = x + y print(z) </pre> <p>(A) min: 1 max: 2                      (B) min: 2 max: 6 (C) min: 1 max: 8                      (D) min: 3 max: 8</p> <p><b>Ans (D)</b></p>
8	<p>Which is NOT the possible output of following program from given options:</p> <pre> import random periph = ['Mouse', 'Keyboard', 'Printer', 'Monitor'] for i in range(random.randint(0,2)):     print(periph[i], '*', end=" ") </pre> <p>(A) Mouse *Keyboard *                      (B) Mouse * (C) Mouse *Keyboard* Printer*                      (D) No output</p> <p><b>Ans (C)</b></p>
9	<p>What is the output of following program:</p> <pre> import math a=math.ceil(20.5) b=a/5 c=math.floor(b) print(c) </pre> <p>(A) 5                      (B) 4                      (C) 6                      (D) None of the above</p> <p><b>Ans (B)</b></p>

10	<p>What is the output of following program:</p> <pre>g=0 def fun1(x,y):     global g     g=x+y     return g def fun2(m,n):     global g     g=m-n     return g k=fun1(2,3) fun2(k,7) print(g)</pre> <p>(A) 2                                      (B) -2                                      (C) 12                                      (D) 5</p> <p><b>Ans (B)</b></p>
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**CASE STUDY QUESTIONS (R)**

	<p>Lalit is a game programmer and he is designing a game where he has to use different python functions as much as possible. Apart from other things, following functionalities are to be implemented in the game.</p> <p>(1) The players have to input their names and Lalit has to remove the unnecessary blank spaces from the name.</p> <p>(2) He is simulating a dice where random number generation is required.</p> <p>(3) Since the program becomes too lengthy, Lalit wants a separate section where he can store all the functions used in the game program.</p> <p>(4) He wants to implement usage of less memory so he doesn't want to include all the functions stored in separate sections.</p> <p>(5) In the game, one source object generates and throws balls and the player has to catch the balls. Here the distance and time is to be calculated so that the program can check whether the ball was caught or missed by the player.</p> <p>Lalit is feeling difficulty in implementing the above functionalities. Help him by giving answers following questions:</p>
11	<p><b>Q.1:</b> In functionality (1), which python module and function should be used:</p> <p>(A) remove() function of string module                                      (B) split function() (C) trim() function of string module                                      <b>(D) strip() function of string module</b></p>
12	<p><b>Q.2:</b> To implement functionality (2) which module can be used:</p> <p><b>(A) random</b>                                      (B) randomise                                      (C) randint                                      (D) math</p>
13	<p><b>Q.3:</b> In functionality (3), Lalit should use</p> <p>(A) in-built functions (B) He should write another Python program <b>(C) He should use a module with all the required functions</b></p>





SNO	NAME OF THE TEACHER	KV	TOPIC ALLOTTED
3	Mr RAVI KUMAR TEWARI	INS KALINGA	Default parameters, positional parameters, function value(s), flow of execution, scope of a variable (local scope)

### MULTIPLE CHOICE QUESTIONS

1	<pre>def s_interest(prnc,time=3.rate=0.12):     return (prnc*time*rate)  s_interest(5000) a. 800 b. 1700 c. 1800 d. 450</pre> <p><b>Ans : c. 1800</b></p>
2	<pre>def func(*args):     for i in args:         print(i)  func(1, 2, 3)  a. 1    2    3 b. 1 2 3 c. Error d. None</pre> <p><b>Ans a. 1</b> 2 3</p>
3	<pre>def greet(x):     if x &lt; 0:         return "Welcome!"     else:         return "Namaste"  print(greet(1))</pre>

	<pre>print(greet(-1))</pre> <ul style="list-style-type: none"><li>a. Namaste Welcome!</li><li>b. Welcome! Namaste</li><li>c. 1! -1</li><li>d. Error</li></ul> <p><b>Ans : a. Namaste Welcome!</b></p>
4	<p>In python arguments can be passed...</p> <ul style="list-style-type: none"><li>a.call by value</li><li>b.call by reference</li><li>c. It gives options to user to choose</li><li>d.. Both A and B</li></ul> <p><b>Ans: d .Both A and B</b></p>
5	<p>If return statement is not used inside the function, the function will return:</p> <ul style="list-style-type: none"><li>a. NULL</li><li>b. 0</li><li>c. None</li><li>d. Arbitrary value</li></ul> <p><b>Ans C. None</b></p>
6	<p>Which of the following function headers is correct?</p> <ul style="list-style-type: none"><li>A. def fun(a = 5, b =4, c)</li><li>B. def fun(a = 5, b, c =4)</li><li>C. def fun(a, b = 5, c = 4)</li><li>D. def fun(a, b, c = 4, d)</li></ul> <p><b>Ans C. def fun(a, b = 2, c = 3)</b></p>
7	<p>Which of the arguments can be skipped in the function call?</p> <ul style="list-style-type: none"><li>a. Positional arguments</li><li>b. Default arguments</li><li>c. Keyword arguments</li><li>d. No arguments</li></ul> <p><b>Ans b: default arguments</b></p>

8	<p>Which of the following is a feature of DocString?</p> <p>a) Provide a convenient way of associating documentation with Python modules, functions, classes, and methods</p> <p>b) All functions should have a docstring</p> <p>c) Docstrings can be accessed by the <code>__doc__</code> attribute on objects</p> <p>d) All of the mentioned</p> <p><b>Ans: d) All of the mentioned</b></p>
9	<pre>def func1(f_name, val):     print(f_name(val))  func1(max, [7,8,9]) func1(min, [8,7,9])</pre> <p>a. 9,7</p> <p>b. 7,9</p> <p>c. error</p> <p>d. None of the mentioned</p> <p><b>Ans: a) 9,7</b></p>
10	<p>Variable defined inside a function referred to as :</p> <p>a. Global variable</p> <p>b. Default variable</p> <p>c. Local variable</p> <p>d. Dynamic variable</p> <p><b>Ans: c. Local Variable</b></p>
<b>CASE STUDY QUESTIONS (R)</b>	
1	<p>Shivam wants to know the correct name resolution rule in Python. Please help him.</p> <p>Local, Enclosing, Global, Built in</p> <p>Global, Enclosing, Local, Built in</p> <p>Local, Global, Enclosing, Built in</p> <p>Built in, Enclosing, Global, Local</p> <p><b>Ans : a. Local, Enclosing, Global, Built in</b></p>
2	<p>Which type of parameter Mahesh has to use in function definition, so that any number of arguments can be passed through function call</p> <p>Keyword</p> <p>Variable length.</p>

	Positional Default. <b>Ans : b. Variable Length</b>
3	Where does the execution of the program start? user defined function __main__ void function __name__ <b>Ans : b. __main__</b>
4	<pre> 1.def cat_dog_count(arg): 2.     arg=arg.lower() 3.     l=arg.split() 4.     c1=l.count("cat") 5.     c2=l.count("dog") 6.     if c1==c2: 7.         return "True" 8.     else: 9.         return "False" 10.b=cat_dog_count("ca dog cat do d Trip flip cat") 11.print(b) </pre> <p> a. 1 2 3 4 5 6 7 8 9 10 11  b. 1 10 1 2 3 4 5 10 11  c. 1 10 1 2 3 4 5 6 7 10 11  d. 1 10 1 2 3 4 5 6 8 9 10 11 </p> <b>Ans d. 1 10 1 2 3 4 5 6 8 9 10 11</b>
5	Which of the following function call can be used to invoke the below function definition? <pre> def calc(p,q,r,s) </pre> <pre> calc(3,4,5,6) calc (p=1,2,3,5) calc(3, 4, r=3, s=5) calc(q=4, p=3,s=5,r=7) </pre> <p> All are correct  I, III, IV are correct  I, II ,III are correct  I &amp; IV are correct </p> <b>Ans: b I,III, IV are correct</b>
6	Void function refers?  A function having the name void. A function returns NULL A function that returns a value.

	<p>A function returns None</p> <p><b>Ans : d. A function returns None</b></p>
7	<p>We can pass the argument in the function call in any order using...</p> <p>Keyword argument Variable Length argument No argument D. default argument</p> <p><b>Ans :a. Keyword argument</b></p>
8	<p>Rohit wants to access the global variable inside the function having the local variable same name as Global variable. Suggest him which keyword he has to use:</p> <p>import assert lambda global</p> <p><b>Ans: d. global</b></p>
9	<pre>def power2(n=3):     def f(x):         return n**x     return f  print(power2()(4))</pre> <p>Error 3 4 d. 81</p> <p><b>Ans d.81</b></p>
10	<pre>def double(x):     return 2*x def apply(f,data):     return f(data) print(apply(double,[1,2,3]))</pre> <p>[1, 2, 3, 1, 2, 3] [2,4,6] 2*[1,2,3] Error</p> <p><b>Ans a.[1, 2, 3, 1, 2, 3]</b></p>