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CHENNAI

Model Question Paper

Programme	:	**Online M.C.A**	Semester	:	**I**
Course Title	:	**Python Programming**	Course Code	:	
Faculty	:		Class Nbr	:	
Duration	:	**2 Hrs. 30 Mins.**	Max. Marks	:	**100**

PART – A

Answer All the Questions (10 X 1 Marks = 10 Marks)

Q.No.	Question Description	Marks
1.	Python supports what type of Programming? A) object-oriented programming B) structured programming C) functional programming D) all of the mentioned	1
2.	_____ constructs are used by Python for the creation of anonymous functions at runtime. A) def B) anonymous C) lambda D) none of the mentioned	1
3.	In Python, the following are the order of precedence has been followed. A) Exponential, Parentheses, Unary, Arithmetic, Relational, Logical, Bitwise B) Exponential, Parentheses, Logical, Relational, Unary, Bitwise, Arithmetic C) Parentheses, Exponential, Bitwise, Unary, Arithmetic, Relational, Logical D) Parentheses, Exponential, Unary, Arithmetic, Bitwise, Relational, Logical	1
4.	Which of the following is true for naming identifier in Python? A) underscore and ampersand are the only two special characters allowed B) should start with alphabets C) can start with underscore D) none of the mentioned	1
5.	The output of the expression 20//3 is: A) 6 B) 6.6666 C) 2 D) none of the mentioned	1
6.	The output of the following python expression is: min(max(False,-1,-5), 20,70) A) True B) False C) 20 D) -5	1
7.	From the following data structure, _____ is considered as unordered and mutable irrespective of the python version that we use. A) Tuple B) Dictionary C) Set D) List	1

8.	What arithmetic operators cannot be used with strings in Python? A) * B) − C) + D) All of the mentioned	1
9.	To add a new element 50 to a list 'list1', we use which Python command? A) list1.addEnd(50) B) list1.addLast(50) C) list1.add(50) D) list1.append(50)	1

10.	Which of the following Python statements will result in the output 80?
	A = [[10, 20, 30],
	    [40, 50, 60],
	    [70, 80, 90]]
	A) A[2][1]
	B) A[1][2]
	C) A[3][2]
	D) A[2][2]
		1

PART – B

Answer All the Questions (15 X 2 Marks = 30 Marks)

11.	What will be the output of the following Python program?
	``
	i = 0
	while i < 50:
	    print(i , end=' ')
	    i += 10
	    if i == 30:
	        break
	else:
	    print(10)
	``
	A) error
	B) 0 10 20
	C) 0 10 20 30 40
	D) 10
		2

12.	What will be the output of the following Python program?
	``
	i = 1
	while True:
	    if i%3 == 0:
	        break
	    print(i, end=' ')
	    i += 1
	``
	A) error
	B) 1 2 3
	C) 0 1 2
	D) 1 2
		2

13.	What will be the output of the following Python operation: 2 << 3 A) 16 B) 8 C) 4 D) 32	2
14.	What will be the output of the following Python expressions: 3**(2**2)	2

	(3**2)**2 3**2**2 A) 18 81 18 B) 81 81 81 C) 81 18 81 D) 18 56 81	
15.	What will be the output of the following Python program? for i in [10, 20, 30, 40][::-1]: print(i, end=' ') A) 10 20 30 40 B) 1 2 3 4 C) 40 30 20 10 D) 40 30 20 10 0	2
16.	What will be the output of the following Python expressions: "a"+"bc" "a"*4 "a"+4 ord("a")+4 A) 'abc' 'aaaa' error 101 B) error 'abcd' a4 d C) 'a+bc' 'aaaa' 101 d D) 'a+b+c' 'abcd' 'aaaa' error	2

17.	What will be the output of the following Python program?
	def fun(x):
	   x[0] = ['xyz']
	   x[1] = ['abc']
	   return id(x)
	q = ['abc', 'xyz']
	print(id(q) == fun(q))
	
	A) Error
	B) False
	C) True
	D) ['def','abc']
		2

18.	What will be the output of the following Python program? list1 = [1,2,3,4] list2 = [2,4,5,6] list3 = [2,6,7,8] result = list() result.extend(i for i in list2 if i not in (list1+list3) and i not in result) result.extend(i for i in list1 if i not in (list2+list3) and i not in result) result.extend(i for i in list3 if i not in (list1+list2) and i not in result) print(result) A) [7,8,5,3,1] B) [1,3,5,7,8] C) [5,1,3,7,8] D) [1,7,8,5,3]	2
19.	What will be the output of the following Python program? list1 = [1, 3] list2 = list1 list1[0] = 4 print(list2) A) [1,4]	2

	B) [4,3] C) [1,3] D) [1,4,3]	
20.	Write a list comprehension for number and its cube for l=[1, 2, 3, 4, 5, 6, 7, 8, 9]. A) [x**3 for x in l] B) [x^3 for x in l] C) [x**3 in l] D) [x^3 in l]	2
21.	What will be the output of the following Python program? T=(1,2,3,4,5) T[1:-1] A) (2,3,4) B) (2,3,4,5) C) (1,2,3,4) D) (5,4,3,2,1)	2
22.	What will be the output of the following Python statement a,b=10,20,30 A) Yes, this is an example of tuple unpacking. a=10 and b=20 B) Yes, this is an example of tuple unpacking. a=(10,20) and b=30 C) No, too many values to unpack D) Yes, this is an example of tuple unpacking. a=10 and b=(20,30)	2
23.	What will be the output of the following Python program? d1 = {"jay":50, "ajay":55} d2 = {"jay":566, "ajay":55} print(d1 == d2) A) True B) False C) Error D) No Output	2
24.	What will be the output of the following Python program? a={1:"X",2:"Y",3:"Z"} for i,j in a.items(): print(i,j,end=" ") A) 1 "X" 2 "Y" 3 "Z" B) 1 X 2 Y 3 Z C) {1,2,3} D) {'X','Y','Z'}	2

25.	What will be the output of the following Python program?
	def power(x, y=2):
	   r = 1
	   for i in range(y):
	     r = r * x
	   return r
	print(power(3), end=' ')
	print(power(3, 3))
	A) 3 3
	B) 3 2
	C) 9 27
	D) 2 3
		2

PART – C
Answer any six Questions (6 X 10 Marks = 60 Marks)

26.	Write a python program that checks the strength of a password entered by the user. The strength of the password is decided based on the following criteria. It should be of minimum 6 characters and maximum of 15 characters, should consider factors like use of uppercase and lowercase letters, digits, and special characters. The password is considered as 'strong' if it meets all the above criteria. If only 3 to 4 criteria's are used then the password strength is medium otherwise its rated as a weak password. Provide the strength rating based on these criteria and use a while loop to read the input until a strong enough password is entered.	10
27.	Write a Python Program using user defined function and regular expression **t**o remove leading zeros from an IP address. Consider the input as an IP address and pass the input to the user defined function deletezeros(). The function deletezeros() should remove the leading zeros and return the output. **Example:** IP address= 116.08.094.096 Output = 116.8.94.96	10

28.	Write a Python Progam to perform the following using appropriate methods whereever necessary.
	    (i) Get two numbers from user as input, Find the sum of the inputs along with 12% of the first input. (2 marks)
	    (ii) Insert a number in to a given list at an appropriate postion. Get the number to be inserted and the position from the User as input.(4 Marks)
	    (iii) Display all the integers between 200 to 250 whose sum of digits is a odd number. (4 Marks)
		10

29.	Write a Python Program to read an Input string and check whether the given string is a valid GST (Goods and Services Tax) number or not using Regular Expression. The valid GST (Goods and Services Tax) number must satisfy the following conditions: • It should be 15 characters long. • The first 2 characters should be a number. • The next 10 characters should be the PAN number of the taxpayer. • The 13th character (entity code) should be a number from 1-9 or an alphabet. • The 14th character should be Z. • The 15th character should be an alphabet or a number.	10
30.	Write a Python program to create a list of integers with both positive and negative numbers. Use functions to perform the following operations. (i) Accept a list of numbers and returns a copy of the list with all negative numbers removed. (ii) It should return a tuple containing the minimum and maximum values from the list. Example: Consider the list [20, -12, 35, 4, -45, 9, -1] Output 1: [20,35,4,9] Output 2: (-45,35)	10
31.	Create a Dictionary with a key value pair containing the student details like Name as key and height and weight as values. Write a Python program to filter the students whose height is > 6ft and Weight is > 70kg and store it in a new dictionary. Example: Original Dictionary: {'Ram': (6.2, 72), 'Rahul': (5.9, 65), 'Leena': (6.3, 73), 'Ajay': (5.8, 66)} Output Dictionary:{'Ram': (6.2, 72), 'Leena': (6.3, 73)}	10
32.	Write a Python Program to create a text file which contains five lines about your favourite teacher. The file should always have the option of adding new lines to it. Perform the following operations with the file. (i) Read the file, reverse the contents of the file and copy it to another file. (5 Marks) (ii) Read the file and copy the odd lines from a file and copy it to another file (5 Marks)	10

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