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	BCA – IMCA
	Python Programming - 05101155
	Question List for Viva

1.	**What is reserved keyword?** • Inbuilt Function name, any other keyword like for, while, break, in, sum, pow etc known as reserved key word which is not use as variable name.
2.	**Select the reserved keyword in python.** • (A) else (B) import (C) raise **(D) All of these** **** You can change this question with other keywords also**
3.	**Python allow declaring variable name with reserved keyword? Or reserved keyword is use to declare variable name?** • NO
4.	**How many maximum character support by python to declare variable name?** • 79 character
5.	**How to assign same value to multiple variables?** • Var1, Var2, Var3 = 10 **you can also assign string or character
6.	**Define semantic error.** • Writing invalid program logic that produces incorrect results when the instructions are executed. The syntax of the source code may be valid, but the algorithm being employed is not.
7.	**Can we start variable name with number like 9myname or 45number?** • NO, Syntax Error: invalid syntax.
8.	**Which Special symbol is allow to use in variable name declaration?** • _ (under score to join two different word)
9.	**Can we start variable name with _ like _myname, _number?** • YES, but it's not a good way to declare variable name.
10.	**What is output 7*21%3?** • 0 because % returns reminder so its 0 and any number multiply by 0 become 0
11.	**What is output of 7*21/3?** • 49.0 because / returns quotient that is 7 and 7*7 is 49
12.	**Give main difference between % and / operator. (or modulo operator and division operator)** • % return reminder and / returns quotient.
13.	**Python is high level and _____ based programming language.**

	• Interpreter
14.	**What do mean by interpret?** • Execute program line by line.
15.	**_____ is indicate that python is ready for code and interpret.** • The chevron, >>>, is the prompt the interpreter uses to indicate that it is ready.
16.	**_____ is extension of python script file. Or Python script file ends with _____.** • py
17.	**What is Program?** • A program is a sequence of instructions that specifies how to perform a computation
18.	**_____ Method is use to get data from keyboard or user in python programming.** • input() method.
19.	**What is by default data type of number if you enter by using input () method?** • String
20.	**Define Bug or what do you mean by Bug?** • Programming errors are called bugs.
21.	**In python print is statement or function?** • function
22.	**What do you mean by syntax error?** • A syntax error is an error in the syntax of a sequence of characters or tokens that is intended to be written in compile-time. A program will not compile until all syntax errors are corrected.

23.	**Give a use of type() method.**
	• It returns data type of variable or value.
	>>> type('Hello, World!')
	    <type 'str'>
	>>> type(17)
	    <type 'int'>

24.	**What is output of type(input)?** • <class 'builtin_function_or_method'> return type of input() method.
25.	**Define variable and how one can assign value to it.** • In Python, variables are a storage placeholder for texts and numbers. It must have a name so that you are able to find it again. The variable is always assigned with the equal sign (Assignment operator), followed by the value of the variable. Var1=10, var2="hello"
26.	**Is python allow integer value with leading zero like number = 092345 or number = 0390012?** • No, it gives Syntax Error: leading zeros in decimal integer literals are not permitted

27.	**Define operator and operand.** • Operators are special symbols that represent computations like addition and multiplication. The values the operator is applied to are called operands.
28.	**_____ Operator is use as bitwise XOR operator in python.** • **^** is use.

29.	**What do mean by floor division in python.**
	• Floor division returns the quotient(answer or result of division) in which the digits after the decimal point are removed. But if one of the operands(dividend and divisor) is negative, then the result is floored, i.e., rounded away from zero.
	>>> 3/5
	    0.6
	>>> 3//5 **#this is known as floor division.**
	    0

30.	**_____ Operator is use for floor division.** • // is use.
31.	**What are the key features of Python?** • Interpreted Dynamically-typed Object-oriented Concise and simple Free Has a large community
32.	**What is major difference between tuple and list?** • tuple is immutable and list is mutable
33.	**_____Function is use to convert string into lower case.** • lower() **e.g. myname.lower()**
34.	**_____ Function is use to convert string into upper case.** • upper() **e.g myname.upper()**
35.	**_____ Function is use to check string is in upper case or not.** • isupper() & islower() used to check string is in lower case or not.
36.	**isupper() and islower() method returns?** • Boolean value true or false based on condition.
37.	**_____ Operator known as slice operator or _____ operator is use for slicing string or list or tuple.** • : (colon)
38.	**Can we implement stack operation or queue operation using list in python?** • Yes we can
39.	**What is main difference between python list and array of C language?** • Base address of both start with 0 • But the difference is we can iterate list from both the side using positive index and

		negative index value but for array of C language it is not possible to access array element with negative index value.
40.		**_____ method is use to know ascii value of character/ alphabet.** • ord() method is use.
41.		**What is slicing?** • Slicing is a technique that allows us to retrieve only a part of a list, tuple, or string. For this, we use the slicing operator ":" (colon).
42.		**Can we perform slicing operation using negative index value?** • Yes
43.		**At the time of slicing if value is [:] than what happen?** **Or** **If we not pass value of start index and end index in slicing than what happen?** • It will print whole string, tuple or list.
44.		**When we perform slicing operation and if my value is [4:10] than how many elements it gives?** • Start from 4th element and stop at 9th element so it gives 4th to 9th element.
45.		**If the value of slicing is [2:] than what will be the output?** • It starts from 2nd element to nth element.
46.		**Negative index value access element from which direction?** • Right to left direction.
47.		**Can we perform slicing operation using () parenthesis?** • No its give syntax error.
48.		**How to declare single line comment and multiline comment?** • # is use to single line comment. • """ comment """ is use for multiline comment. • Also we can use ''' '''
49.		**How will you check if all characters in a string are alphanumeric? Or which method of string use to check string is alphanumeric or not.** • Method isalnum() is use.
50.		**Give use of getcwd() method.** • Is use to know current working directory. • Is method of os module.
51.		**_____ Method is use to reverse list or how would you reverse your list?** • reverse() method of list. • It's not work on tuple or set or any other data structure of python.
52.		**How you can reverse a string, tuple or list using slicing operation?** • By passing index value like [::-1]

53.	**Which statement is use to control loop execution?** • break and continue.
54.	**How break statement work?** • break stops the current loop from executing further and transfers the control to the next block. Based on condition.
55.	**How continue statement work?** • continue statement jumps to the next iteration of the loop without exhausting it.
56.	**Is python is case sensitive?** • Yes
57.	**How do while work execute in python?** • Do…while loop is not supported by python.
58.	**Which statement replace the switch case statement of C programming in Python.** • if..elif..else
59.	**Give list of data types which are immutable in python.** • tuple, string, set, dictionary
60.	**What do mean by immutable?** • Immutable mean it cannot be change by passing index value or any other way.
61.	**What is mutable and what is immutable in dictionary?** • Keys are immutable and value is mutable. • Even keys must be unique. • But as it is case sensitive so one and One is differ as key value.
62.	**How Dictionary store data or element?** • It store data in pair. • Mean key and it's value. • Separated by : (colon), {"mykey":1001,"name":'bhavika"}
63.	**Can Dictionary support any mutable or immutable data type as key?** • No
64.	**Can dictionary support any mutable or immutable data type as value?** • Yes
65.	**Which are the two way to declare empty dictionary?** • By using dict() inbuilt method like, mydict=dict() • And by using empty {} curly braces like, mydict={}
66.	**If we create dictionary using tuple as its value than what happen?** • It not gives error at the time of declaration but when try to update record it gives error as tuple is immutable.
67.	**If we declare set1 = {} than its empty set or empty dictionary?** **OR**

	What the data type of set1 = {}? • dictionary
68.	**How Can we declare empty set? OR By Using which method empty set is declare?** • set() inbuilt method like myset = set()
69.	**Set is immutable or mutable?** • set itself is mutable but its value is immutable, we can change the whole set but we can't change its value by passing index value.
70.	**How elements of set are stored?** • Set store its element in unordered manner that's we cannot access its element by passing index value.
71.	**Can Python dictionary allow changing its value by using key?** • Yes, but if key is not present than new key and value will be added.
72.	**To remove element from dictionary which methods are use?** • discard(), remove() and pop()
73.	**How pop() method remove elements from dictionary?** • Its remove element arbitrary (randomly).
74.	**What is main difference between discard() and remove() method of dictionary?** • If key is not present discard() method not gives an error where remove() method gives error.
75.	**_____ Method of dictionary is use to access value.** • items()
76.	**Can we iterate dictionary using for loop?** • Yes we can
77.	**If, for j in dictionary:** **print(j)** **Than what it will print?** • It will print only keys and not its value.
78.	**_____ Package is use to import to use mathematical operation like sqrt(),pow() operation.** • math package like import math
79.	**If I want to find sum, maximum value or minimum value row wise and column wise from numpy array than what need to pass?** • Value of axis. If axis=0 mean column and axis=1 mean raw
80.	**Who introduce numpy and in which year?** • Travis Oliphant in year 2005.
81.	**By using which command one can install numpy package?** • pip install numpy

	• or else you can install scipy or anaconda.
82.	**What is package or define package?** • Is collection of same file or program and sub- programs. We can also say it's a one kind of directory like folder.
83.	**How to create array using numpy?** • myarray=numpy.array([1,2,3],[4,5,6]….)
84.	**_____ Method is use to create numpy array?** • array()
85.	**Is it mandatory to import numpy package to perform any operation based on numpy package?** • Yes
86.	**_____ package is use to import to use mathematical operation like sqrt(), pow() operation.** • math package like import math
87.	**Give use of itemsize() function of numpy?** • For get to know size of each array item of numpy array in byte it mean how much memory is occupy by each element.
89.	**Array of numpy store same type of data/ element?** • Yes, it is homogenous so data type and item size same for each element of numpy array.
90.	**_____ function is use to know datatype of each mumpy array item.** • dtype()
91.	**_____ is use to know datatype of python variable.** • type()
92.	**What is namespace in python?** • A namespace is a naming system used to make sure that names are unique to avoid naming conflicts.
93.	**Can local variable is use outside of block?** • No
94.	**What do mean by local variable?** • Any variable declared inside a function or loop is known as a local variable. This variable is present in the local space and not in the global space.
95.	**What do you mean by global variable?** • Variables declared outside a function or in global space are called global variables. These variables can be accessed by any function in the program.
96.	**How do you get a list of all the keys in a dictionary?** • **keys() method is use.**

	>>> mydict={'a':1,'b':2,'c':3,'e':5} >>> mydict.keys()
97.	**When you execute max() and min() function on string than how it will work?** • It will gives the maximum or minimum value based on each ASCII value of each character. • If there is more than one string than it compare ASCII value of first character of each string.
98.	**Give at least 5 inbuilt methods of python and also its use.** • len() : use to find length of string or any data structure. • min() : retrun minimum value • max() : return maximum value • pow() : retrun power of value like 2^4 or 6^2 etc • sqrt() : return square root of number. • ord() : return ascii value of charectr • chr() : retrun character for given ascii value • sin() : give sin value of number like this cos(), ten() etc. • log() : give log value of number
99.	**_____ method is use to convert list into string.** • join()
100.	**How we can find power of number without using pow() method.** • By using ** operator
101.	**What is membership operator? Give it use?** • **Membership Operators** are the **operators**, which are used to check whether a value/variable exists in the sequence like string, list, tuples, sets, dictionary or not.
102.	**List out member ship operator?** • in and not in
103.	**How Member ship operator Works?** • These **operator** returns either True or False, if a value/variable found in the list, its returns True otherwise it returns False.
104.	**Is python allow to use increment ++ or decrement – operator?** • No, its gives syntax error
105.	**Python gives which error when variable is not declare and one can try to access it?** • NameError: name 'num2' is not defined //num2 is variable name

106.	**Relational operator returns?**
	• it will return Boolean value True / False based on condition in below exam lets assume that value of num is 3 and value of num3 is 10
	>>> num<num3
	True
	>>> num<=num3
	True

	>>> num>=num3 False
107.	**How bitwise operator perform operation?** • **Bitwise operators** are used to perform **bitwise** calculations on integers. The integers are first converted into binary and then **operations** are performed on bit by bit

108.	**Bbitwise operator return decimal value as result as it perform operation on bit?**
	• Yes it return decimal
	  >>> a=10
	  >>> b=5
	  >>> a&b
	     0
	  >>> a|b
	     15

109.	**List out bitwise operator.** • | - bitwise OR , & (bitwise and), ~ (bitwise not), ^ (bitwise xor) , >> (bitwise right shift), << (bitwise left shift)
110.	**Which relational operator is use for not equal to condition?** • !=
111.	**What is difference between bitwise and relational operator?** • bitwise return decimal, relational return Boolean value
112.	**Is python support shorthand operator like =+,+-,=//?** • Yes
113.	**List out logical operator and What it returns?** • and, or , not • It will return Boolean value True or False based on condition

114.	**What is difference between logical and Operator and bitwise & operator?**
	• logical and Operator return Boolean value where bitwise & operator return decimal value.
	  ** like this you can ask question for logical or and bitwise or,
	  ** also for bitwise not and logical not.

115.	**is and is not belong to which operator?** • identity operator
116.	**_____ function is use to convert data into integer.** • int() method
117.	**What is recursion?** • When a function makes a call to itself, it is termed recursion.
118.	**How do we calculate the length of string without using inbuilt function?**

	• By iterating string using for loop we can find length of string.
119.	**When you find length of string blank space is consider as one of the character or not?** • Yes
120.	**How can we access only value of dictionary in python?** • By using values() in built function we can access only values of dictionary.
121.	**How many maximum argument can allow by range() function?** • it's allow upto 3 argument.
122	**How can we swap the value of two variable by using single line code?** • num1,num2=num2,num1
123.	**Give use of if else conditional statement in python.** • It will execute body of **if** only when test condition is True . **If** the condition is False , body of **else** is executed.

124.	**Is del() and remove() method is same? Give its difference also.**
	    • No
	    • del will delete the whole list,tuple,set or dictionary where remove () only remove the required element.

125.	**How pop() is removing the element?** • It remove element randomly means arbitrary.
126.	**EOF of stand for?** • end of file
127.	**Which access mode is use to open file in read only mode?** • "r" mode is use.

128.	**r+ access mode stand for and w+ stand for?**
	    • R
	    • r+ read write both and w+ write read both

129.	**Which methods use to read data or content from file?**
	    • read() use to read data byte by byte.
	    • readline() use to read data line by line
	    • readlines() use to read all lines at the same time.

130.	**If file is open in "w" mode than what happen with previous data in file?** • It will over write the previous data with new data.
131.	**How to resolve problem of over write data when you open file in write mode?** • Open file in append mode "a".
132.	**Can we use all read(), readline(), and readlines() method to read data of same file within same program?** • Yes, it not gives error but it will read data by very first method and other two method

	print blank because when it read once the position of file pointer reach at end.
135.	**When you open file in append mode what is the file pointer position?** • end of file
136.	**When we open file in read or write mode what is file pointer position?** • Abeginning of file
137.	**Can we change position of file pointer? By using which method?** • Yes, by using seek() method.
138.	**What is use of tell() method of file?** • tell() method gives the current file pointer position.
139.	**Which method is use to open file?** • open() in this method we have to pass filename, and access mode of file.
140.	**What is by default value of access mode if you pass it at the time of opening the file?** • Read mode (r mode)
141.	**What happen when someone open file in read mode which is not exist in system?** • It gives an error file does not exist.
142.	**What happen when someone open file in write mode which is not exist in system?** • New file will created with the same name.
143.	**If we assign list1 with list like, list1 = list2 than what will happen if we change list1?** • list2 also get change.
145.	**Python set allow storing duplicate value?** • No, its only store unique value.
146.	**Can tuple and list of python allow to store duplicate element?** • Yes
147.	What is the main reason to tuple rather than list? • List is slower than tuple. • List can be mutable where tuple can't.
148.	**Is indentation required in python?** • Yes, it's strictly work on indentation.
149.	**What is difference between array of C programming and list of python.** • Array store on homogenous data (same type of data) where list store heterogeneous data(different type of data) • Array only access element using positive index start with 0. • List access element with both the –ve as well +ve index value.
150.	**Is it mandatory to declare function before its calling?** • Yes

151.	Can we declare variable name with white space like "my name"? • No
152.	**int () function can convert floating-point values to integers, but it doesn't round off?** • True
153.	**What do you mean by header of function?** • The first line of the function definition is called the header; the rest is called the body
154.	**What is fruitful function?** • A special Python value returned by functions that have no return statement, or a return statement without an argument.
155.	**What is main use to define user defined function in program?** • Divide program into smaller part. • Code reusability is the main advantage