

## Department of CSE(AIML)

### B.Tech Mid Question Bank (R22 Regulation)

Academic Year: 2024-25

Semester: III

Subject Name: Programming with Python

Faculty Name: K.Madhu

#### PART-A

Q.No	Questions	Marks	BL	CO	Unit No
1	Define the scope and lifetime of a variable in Python.	2	L1	CO1	1
2	What is indentation?	2	L1	CO1	1
3	Define output Statements.	2	L1	CO1	1
4	What is byte code?	2	L1	CO1	1
5	Define the syntax of "for and while loop".	2	L1	CO1	1
6	What happens if a semicolon (;) is placed at the end of a python statement?	2	L1	CO1	1
7	How to Create Array and explain with example?	2	L1	CO2	2
8	What is the purpose of arange() function in Arrays?	2	L1	CO2	2
9	What is the use of all(), any() and sorted() in arrays?	2	L1	CO2	2
10	What is a string and how to define a string in Python?	2	L1	CO2	2
11	Why Strings are immutable and explain?	2	L1	CO2	2
12	Explain about string slicing with example.	2	L1	CO2	2
13	What are mutable and immutable types?	2	L1	CO3	3
14	What is a lambda function in python?	2	L1	CO3	3
15	Give an example of list properties.	2	L1	CO3	3
16	How are tuples useful data structure?	2	L1	CO3	3
17	How to access values in a dictionary?	2	L1	CO3	3
18	Write a short note on dictionary data type in Python.	2	L1	CO3	3
19	Define how the write method works on a file.	2	L1	CO4	4
20	Which method is used to read the contents of a file which is already created?	2	L1	CO4	4
21	What are the two ways of importing a module? Which one is more beneficial?	2	L1	CO4	4
22	What is a namespace? Explain what is meant by namespaces and scoping.	2	L1	CO4	4
23	Give an example for raising an exception.	2	L1	CO4	4
24	Differentiate between an error and exception.	2	L1	CO4	4
25	Differentiate between class variables and instance variables.	2	L1	CO5	5
26	Define the concept of method overriding with an example.	2	L1	CO5	5
27	What are the sequence characters in regular expression, write a simple program?	2	L1	CO5	5
28	Define Quantifiers in regular expressions with simple example.	2	L1	CO5	5
29	Give the advantages of multi-threading.	2	L1	CO5	5

30	Write a Python program that overloads + operator, to add two objects of a class.	2	L1	CO5	5
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### PART-B

Q.No	Questions	Marks	BL	CO	Unit No
1	Explain the need for learning Python programming and its importance.	4	L2	CO1	1
2	Write in brief about the applications of Python.	4	L2	CO1	1
3	Discuss about variables and assignments. Write a Python program that calculates number of seconds in a day.	4	L3	CO1	1
4	What are the core data types supported by Python? Explain how to convert one type into another, with examples.	4	L3	CO1	1
5	List the functional differences between while and for loops. Using the range function, write a loop that prints numbers from 0 to 57.	4	L3	CO1	1
6	Describe Python break, continue, assert and return statements with examples.	4	L3	CO1	1
7	List and explain various types of operators used in Python with examples.	8	L3	CO1	1
8	List different conditional statements in python with appropriate examples.	8	L3	CO1	1
9	Explain about iteration statements with examples.	8	L3	CO1	1
10	How to create an array? Explain with syntax and suitable examples.	4	L3	CO2	2
11	Explain Python Attribute Arrays with Examples.	4	L3	CO2	2
12	Explain the reshape () and flatten () methods in arrays with an example each.	4	L3	CO2	2
13	Write a short note on Python Strings.	4	L2	CO2	2
14	Write short note on the following with examples. a) Length of a string b) Indexing in strings c) Slicing the strings d) Repeating the strings e) Checking membership	4	L2	CO2	2
15	Explain about string formatting operator with example.	4	L3	CO2	2
16	Describe about Operations performed on Arrays in python with Examples.	8	L3	CO2	2
17	Explain the types of multi dimensional arrays with suitable example. Write a python program to accept a matrix from the keyboard and displays its transpose matrix.	8	L3	CO2	2
18	Explain about Searching in the Strings. Write a python Program to find the number of words in a string.	8	L3	CO2	2
19	Summarize the built-in functions in Python with appropriate examples. Write a Python function that prints all factors of a given number	4	L3	CO3	3

20	Distinguish between local and global variables with examples. Write a python program to find factorial of a given number using functions.	4	L3	CO3	3
21	Explain about methods in Lists of Python with appropriate examples.	4	L3	CO3	3
22	Write in brief about Tuple in python. Write operations with suitable examples.	4	L3	CO3	3
23	Write in brief about Dictionary Operations in python with suitable examples? Write a Python program that sorts a dictionary by its values.	4	L3	CO3	3
24	Compare lists and tuples with examples.	4	L3	CO3	3
25	Briefly discuss the various modes that can be used while opening a file.	4	L3	CO4	4
26	Discuss the following methods associated with the file object i) read() ii) readline() iii) readlines() iv) tell() v) seek() vi) write()	4	L2	CO4	4
27	Explain how to create a user defined module in Python	4	L2	CO4	4
28	Briefly discuss about Python packages and how can you use package in your program with an example.	4	L3	CO4	4
29	Explain Python Built-in Exceptions.	4	L2	CO4	4
30	Differentiate between file and module in Python.	4	L4	CO4	4
31	Explain in detail about Python Files, its types, functions and operations that can be performed on files with examples	8	L3	CO4	4
32	a) How to handle an exception using try except block? Explain with the help of a program. b) How to create, raise and handle user defined exceptions in Python.	8	L3	CO4	4
33	How to create a module and use it in a Python program explains with an example. Illustrate Math module in python.	8	L3	CO4	4
34	What are different types of inheritance supported by Python? Explain.	4	L2	CO5	5
35	Define polymorphism. Give an example. Write Python Program to Calculate Area and Perimeter of different Shapes using Polymorphism.	4	L3	CO5	5
36	Discuss about various types of regular expressions in python.	4	L2	CO5	5
37	Discuss the following methods supported by compiled regular expression objects. a) search() b) match() c) findall() d) split e) sub	4	L2	CO5	5
38	What is multithreading? Discuss about starting a new thread.	4	L2	CO5	5
39	Discuss about all the methods in Thread module.	4	L2	CO5	5
40	List the features and explain about different Object Oriented features supported by Python.	8	L2	CO5	5

41	Examine how python supports regular expressions through the 're' module with brief introduction and various built-in methods related to it	8	L3	CO5	5
42	How to create a thread? Discuss about all the methods in Thread module. Illustrate with an example	8	L3	CO5	5

