



SRI INDU COLLEGE OF ENGG & TECHNOLOGY
QUESTION BANK
(Regulation :R20)
Department of CSE (AIML)

(Regulation :R20)
Prepared on 3.10.21

Sub. Code & Title **R20CSE2104- Python Programming**

Academic Year: 2021-22

Year/Sem./Section

II-I

Faculty Name & Designation

Ms. K.ANUSHA, ASST . PROFESSOR

QUESTION BANK WITH BLOOMS TAXONOMY LEVEL (BTL)

(1. Remembering 2. Understanding 3. Applying 4. Analyzing 5. Evaluating 6. Creating)

UNIT-1			
1 MARK QUESTIONS		BT Level	Course Outcome
1.	Discuss the features and Applications of Python	1	CO1
2.	Differentiate existing Programming and Python programming	1	CO1
3.	List some Standard data Types in Python with Examples	1	CO1
4.	Explain and Differentiate Tuple and list with its Operations.	1	CO1
5.	Write a Program to Demonstrate basic data type in Python	1	CO1
6.	What is use of dir(), function? Give some features of dictionaries	4	CO2
7.	Explain the use of join() and Split() string methods with Examples	1	CO2
8	Write a Python Program to multiply all items in a list?	1	CO2
9	Explain briefly about Identity and Membership Operator in Python	1	CO2
10	Demonstrate Mapping and Set Types in Python	2	CO3
11	Difference between Mutable and Immutable constraints and explain Frozen Set	1	CO1
12	Write a Python Program to Print all prime numbers less than 25	2	CO2
10 MARKS QUESTIONS			
1.	a) Define Python. List the Standard Data Types in Python b) Create a List of students and Output top three members in the list based on the marks	5	CO1
2.	a) Explain the Importance of Tuple and show How the Tuple Immutable with different Examples b) Use dictionary to store antonyms of Words [eg: right, left, up, down] Ask the user to enter a words and display antonym of it	2,5	CO1, CO2



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3	a)Illustrate Arithmetic, bitwise, Relational operations in Python with Example Programs b)Write a Python Program to Describe different Ways of Deleting an Element from the given List	2	CO1
4.	a) Define Set and Write Example for each Method of a Set b)Write a Python Program that Interchanges The First and Last Characters of a Given String	2	CO1
5.	a)Explain about String Formatting operator with Examples b)Write a Program to Read A Word and Print the number of Letters, Vowels Percentage of vowels in the word using Dictionaries	2,5	CO1,CO2
6.	a) Write a Program to Perform different Arithmetic operations on Number b) What are the different Operators that can be Performed on List. Explain with Examples	3	CO1
7.	a)Create Tuple in Python And Implement Index and Count methods by taking List of Integers in Tuple b)Construct a Python Program to Calculate Area of Triangle and Circle and Print the Result .Take Input from User	1	CO2
8	a) Write a Program to Demonstrate list and Tuple in Python b) What are the 4 Built in Numeric Data Types in Python Explain	2,1	CO1,CO2
9	a)Write a Python Program to Reverse of given Number using user defined Function b)How to Work with Variables(rules and conventions for declaring a variable)and Operators in Python	4	CO2
10	a)Explain about String in Python and Write a Program Create Concatenation and Print a String and Accessing Substring from a Given String b)Explain about Keywords used in Python	2,2	CO1,CO2
11	a)Explain the List Accessing Methods and List Comprehension. b)Using Bitwise Operators a)Check given number is Even b) Check if the number is Power of 2	1,5	CO1,CO2



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UNIT II

1 MARK QUESTIONS

1	Discuss about File Built in Functions in Python	1	CO3
2	What are the Functions to use file input and file Output	3	CO3
3	What is Exception and Explain	1	CO3
4	How to import a Module in Python explain with an Example	1	CO3
5	How are Arguments passed by value or by reference	3	CO3
6	What are the Uses of File Objects	6	CO3
7	Write a Sample Program to Raise an Exception	2	CO3
8	What is Pickling and unpickling	1	CO3
9	Explain the concept of Namespace and Scoping with an Example		
10	What is Module, built in Modules and Package in Python Given Some Examples	1	CO3
11	Mention what are the rules for local and Global variables in Python	6	CO3
12	Explain the significance of Pickle Module In Python		
13	What the few Python built in Exceptions		

10 MARKS QUESTIONS

1	a)Explain briefly Raise in Exception with Example Program b)Write a Python Script to Create a File and Open the File in Read mode and Count the Number of Words in the Given File	2	CO3
2.	a)Briefly discuss about Python Packages b)Explain about “sys” module and Assert Statement in python	2	CO3
3.	a)What are the Modules used in Python Program explain with an Example b) Write a python Program to define a Module and Import a Specific Function in that Module to another Program	6,2	CO3
4.	a)Explain about Command Line Arguments with Example b) Write a Script named copyfile.py. This script should Prompt the user for the names of two test files. The contents of the first file should be input and written to the second file	3	CO3
5.	a)Discuss about Import Statement in Detail b) Write a Program that inputs a text file. The Program should print all of the unique words in the file in Alphabetical Order	6,4	CO3



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6.	a)State the Persistent Storage with its need b)Write a Python Program to define a Module to find Fibonacci Numbers and Import the Module to another Program	2	CO3
7.	a)What is Module and How to Structure a Program b)How to Import Modules from 2 Different Packages	2	CO3
8	a)Give a Brief description of Several Built in Attributes Related to File Objects b)Explain How Package are Utilized in Python Explain With suitable Program	5	CO3
9	Elaborate the Concept of Exception and Explain 6 types of Exception with suitable Example Program	2	CO3
10	a)How to Handle Exception Using Try , Except block Explain with the help of Program	6	CO3

Unit -III :

1 MARK QUESTIONS

1.	Explain about Special symbols and characters in a regular expression in python	1	CO4
2.	Illustrate Differentiate between Process and Threads.	1	CO4
3	Write short notes on Global Interpreter Lock	1	CO4

4	Discuss about Thread, Multi-Threading and its modules.	2	CO4
5	Describe about multithreaded programming in python and Explain 2 Modules supported for Multithreading	1	CO4
6	Brief about “Re” Module and MetaCharacters	1	CO4
7	Differentiate matching and searching in python regular Expression	2	CO4
8	Explain How Regular Expressions are Compiled in Python Programming Language	1	CO4
9	How to Use ThreadPoolExecutor In Python	2	CO4
10	Give Some Regular Expression Methods[match, search , findall , spilt,sub]	1	CO4

10 MARKS QUESTIONS

1.	What are Regular Expression ?How to find whether an Email Id entered by user is valid or not using Python module	2	CO4
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2	a)Explain briefly about Thread and Threading Module in Python with Example b) What are DAEMON Threads	5,5	CO4
3.	a)Explain Synchronizing of Thread b)Explain Impact of GIL on Multi Thread Programming	3	CO4
4	What is Multi-Threading and Discuss about Starting a new Thread	2	CO4
5.	a)Write a Python Program for Phone Number Verification Using Regular Expressions b)List some advantages and Disadvantages of Multi-Threading Programming in Python	2,6	CO4
6	a)Explain The Characteristics of Process b)Write a Python Program that creates two a daemon threads and two non-daemon threads main thread should wait for all other threads to finish	3	CO4
7.	Write a Program to Split a String where there is a Match and Return a List of String when there is a Split	2	CO4
8.	Write a Python Program to Match a String that contains only upper and lower case letters number and underscore using Regular Expressions	2	CO4
9.	Write a Program to Print Thread name and Corresponding Process for each task	4	CO4
10.	Write a Program to Demonstrate race Condition Between Thread in Python	2	CO4

Unit-IV :

1 MARK QUESTIONS

1	Explain in detail Web Surfing with Python	1	CO5
2	Write a Program by using the Tkinter Module	1	CO5
3	What is Tkinter, Mention atleast three Widgets Supported in Tkinter	1	CO5
4	Explain about label ,list Box and Menu button Widget in Python	1	CO5
5	How does GUI Programming Work in Python	1	CO5
6	How to Create Simple Web Client and Explain in Python	1	CO5
7	Name the Radio Buttons and Check Button functions in python	2	CO5
8	Explain how a CGI application is created in Python	1	CO5
9.	How does CGI helps in handling and Processing the data	2	CO6
10	What is HTTP?Write a Simple Program to list all CGI variables	1	C06
11	Write a Simple Program for making GET,POST request	2	C05
12	How to Setup cookies in Browser		

	10 MARKS QUESTIONS		
1	Write a python program that creates a GUI with a text Box, ok Button and Quit Button On clicked OK, the text entered in textbox is to be Printed in python shell on clicking Quit the program should terminate	1	CO6
2	How to create Label Widget in python. b)What Is CGI explain in detail	2	CO6
3	Consider a python GUI program that produces a window with the following widgets using python code. A button to retrieve the next value in that list(if there is one) this button is displayed if there is no next value in the list	4	CO6
4	Consider a python GUI program that produces a window with the following widgets using python code A label to display the number of items being displayed and the total number items	4	CO6
5	Give an overview and demonstration of building Web Application using python CGI module.	1	CO6
6	Write a program for basic Web Browser using tkinter which should have a text widget wher the user can enter a URL and a canvas to display the contents pf the page	1	CO6
7	Explain about Radio button widget in TKinter .how to create Two radiobutton sets(one for gender and another for Indian or not)on the same canvas.	3	CO6
8	Generate simple registration form using python	6	CO6
9	Explain Web Surfing with Python. b)Explain pack ()and place() method of TKinter.	1	CO6
10	Explain TKinter Geometry. b)Explain the steps to Create Widgets in python.	1	CO6
	Unit-V :		
	1 MARK QUESTIONS	1	CO6
1	Explain about Python Databases and how they are created.	4	CO6
2	List out the various Python database API.	2	CO6
3	How database connectivity is established in Python.	6	CO6
4	Describe the creation of an employee database in python.	1	CO6
5	What are the different operations that are performed on a database using python.	2	CO6
6	Discuss the various syntax errors generated in databases in Python.	1	CO6
7	Explain about DB-API in Python.	3	CO6
8	Summarize about object relational mangers in Python.	2	CO6
9	Explain cursor objects in python	3	CO6
10	Explain error and Exception handling in DBAPI.	3	CO6

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	10 MARKS QUESTIONS		
1	Explain SQL Alchemy and Database Operations in python.	3	CO3
2	Demonstrate Python with MySQL using a program.	1	CO3
3	Explain Error and Exception Handling in DBAPI.	3	CO3
4	Develop Simple Database Application Programmers Interface	6	CO3
5	Create an Employee Table and find out all Employee names whose Salary is more than 1000.	6	CO3
6	Differentiate between Operation error and Programming error in DBAPI.	2	CO5
7	Implement Python Django's ORM.	3	CO5
8	How to use ORM in Web Application. b) Explain about GET and POST method in python.	1,3	CO5
9	Explain various Method and Attributes of Cursor Object.	3	CO5
10	Describe in Detail about Python SQL Alchemy ORM with a Case Study of Employee Role Database.	2	CO5

END EXAMINATION- MODEL PAPER

BR-20

D4

Subject Code: R20CSE2104

SRI INDU COLLEGE OF ENGINEERING & TECHNOLOGY

(An Autonomous Institution under UGC, New Delhi) Recognized under 2(f) and 12(B) of UGC Act 1956

II B.Tech - I Semester –End Examinations (Model paper)

Python Programming

Duration: 3 Hrs

Max Marks: 70M

SECTION – A

Answer ALL the following questions

(Marks

5*4=20M)

1. State any four applications where python is more popular.
2. List out the main differences between lists and tuples.
3. What are the uses of File object?
4. Give a brief description of several Built-in attributes related to File objects.
5. Summarize the purpose of pipe and dot symbols used for pattern matching.

SECTION – B

Answer any FIVE questions choosing at least one from each Unit

(5*10=50 Marks)

UNIT 1

- 6.a) How to declare and call functions in Python programs? Illustrate with an example script.
- b) List and explain few most commonly used built-in types in python.

OR

7. Summarize various operators, built-in functions and standard library modules that deals with Python's numeric type.

UNIT II

8. Explain the following file built-in functions and method with clear syntax, description and illustration:
a) open() b) file() c) seek() d) tell() e) read()

OR

- 9.a) How does try-except statement work? Demonstrate with an example python code.
- b) Illustrate the concept of importing module attributes in python scripts.

UNIT III

10. Examine how python supports regular expressions through the 're' module with brief introduction and various built-in methods related to it.

OR

- 11.a) What is the motivation behind parallelism and state how python achieves parallelism?
- b) Explain briefly about thread and threading module objects in Python.

UNIT IV

12. Consider a Python GUI program that produces a window with the following widgets using python code:

- a) A button to retrieve the next value in that list(if there is one). This button is displayed if there is no next value in the list
- b) A label to display the number of the items being displayed and the total number of items

OR

13. Give an overview and demonstration of building web applications using python's cgi module.

UNIT V

- 14a) What is a cursor object? Explain various methods and attributes of cursor object.
- b) What do you mean by a constructor? List and describe various constructors used for converting to different data types.

OR

15. Describe in detail about Python SQLAlchemy ORM with a case study of Employee role database.

MID I MODEL PAPER
SRI INDU COLLEGE OF ENGINEERING & TECHNOLOGY
(An Autonomous Institution Under UGC Act 1956, New Delhi)
II B.Tech -I Semester –I Mid Term Examinations
(R20CSE2104)- Python Programming

Department of CSE(AI&ML)

Duration: 90Mins

Max Marks:25M

Section-A

Marks:5*1=5

Answer *All* the questions

1. Discuss the features and Applications of Python.
2. How to open a new file in python and how the write method works on a file?
3. What is Regular Expression?
4. What is GUI Programming and Explain the uses of GUI in python?
5. List out the various Python database API.

Section-B

Answer any *FOUR* Questions

Marks:4*5=20M

- 6.a. Define python ?List the standard data type of python?
b. Create a list of students and output top three members in the list based on marks
- 7a . Explain about handling an exception?
b. What is module and how to structure a program?
8. Write python program for phone number verification using regular expressions?
- 9 .What is Tkinter module in python and explain its need?
- 10 .Explain SQLAlchemy and Database Operations in python.
11. Implement Python Django's ORM.

MID II MPODEL PAPER

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(An Autonomous Institution Under UGC Act 1956, New Delhi)
II B.Tech -I Semester –II Mid Term Examinations
(R20CSE2104)- Python Programming
Department of CSE(AI&ML)

Duration: 90Mins

MaxMarks:25M

Section-A

Marks:5*1=5

Answer *All* the questions

1. Discuss the features and Applications of Python.
2. How to open a new file in python and how the write method works on a file?
3. What is Regular Expression?
4. What is GUI Programming and explain the uses of GUI in python?
5. List out the various Python database API.

Section-B

Answer any *FOUR* Questions

Marks:4*5=20M

- 6 a) Define python? List the standard data type of python?
b) Create a list of students and output top three members in the list based on marks
- 7 a) Explain about handling an exception?
b) What is module and how to structure a program?
8. Write python program for phone number verification using regular expressions?
9. What is Tkinter module in python and explain its need?
10. Explain SQLAlchemy and Database Operations in python.
11. Explain Error and Exception Handling in DBAPI.