



R20 Regulation

Subject code:3P5FB

TKR COLLEGE OF ENGINEERING AND TECHNOLOGY

(Autonomous, Accredited by NAAC with 'A+' Grade)

B.Tech V Semester Supplementary Examinations, December 2024

**Python Programming
(IT)**

Maximum Marks: 70

Date:28.12.2024

Duration: 3 hours

- Note:
- 1.This question paper contains two parts A and B.
 2. Part A is compulsory which carries 20 marks. Answer all questions in Part A.
 3. Part B consists of 5 Units. Answer any one full question from each unit which carries 10M.
 4. Each question carries 10 marks and may have a, b, c, d as sub questions.

Part-A

All the following questions carry equal marks (10X2M=20) Marks)		CO	Bloom Tx
1	What is Python? What are the benefits of using python?	1	L1
2	Differentiate between logical and bitwise operators?	1	L1
3	Write the syntax of if-else statement?	2	L1
4	Explain range() function with suitable example?	2	L1
5	List out the main differences between lists and tuples?	3	L1
6	List the advantages of array?	3	L1
7	Define the scope and lifetime of a variable in python?	4	L1
8	Why is * called string repetition operator?	4	L1
9	What are the significant features of the pandas library?	5	L1
10	Define Pandas?	5	L1

Part-B

Answer All the following questions. (5X10M=50Marks)		CO	Bloom Tx
11	A) Explain internal working of python? [5M] B) What are identifiers? Discuss the rules to name an identifier? [5M]	1	L2
	OR		
12	What are the common built-in data types in python? [10M]	1	L2
13	A) Write a Python program to construct the following pattern. [6M] * * * * * * * * * * * * * * * B) Differentiate between continue and break statement in python? [4M]	2	L3
	OR		
14	A) Explain pass statement in python with an example? [4M] B) Explain decision statements in python with suitable example? [6M]	2	L2
15	A) Give a comparison between lists, tuples and dictionaries? [6M] B) Write a python program to add two matrices using array? [4M]	3	L2

	OR		
16	A) What is a list in python? How to create nested lists? Explain with suitable example. [6M] B) Write a python program that counts the number of occurrences of an element in a given list and mention list slicing. [4M]	3	L2
17	A) Explain with an example, how + and * operators work with strings. [5M] B) Describe about variable length arguments with suitable program. [5M]	4	L2
	OR		
18	A) What is lambda function? What are the characteristics of a lambda function? Give an example. [7M] B) Explain slicing in strings with suitable example [3M]	4	L2
19	A) Explain how slicing in numpy array works in python? [5M] B) Explain data types supported by numpy? [5M]	5	L2
	OR		
20	A) Explain how to handle missing data in pandas? [5M] B) Explain in detail about pandas index with suitable example? [5M]	5	L2