



R18 Regulation

Subject code: 206FC

TKR COLLEGE OF ENGINEERING AND TECHNOLOGY

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

B.Tech VI Semester Supplementary Examinations, December 2024

PYTHON PROGRAMMING

(IT)

Maximum Marks: 70

Date: 09.01.2025

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 are simple strategies for developing algorithms?	1	L1
2	What is recursion and how is it used in algorithm design?	1	L1
3	What is a statement in Python?	2	L1
4	Can you provide an example of a program that exchanges the values of two variables?	2	L1
5	Write the difference between local and global scope in Python functions.	3	L1
6	What is the concept of immutability in Python strings.	3	L1
7	Write the process of cloning a list in Python.	4	L1
8	How can a loop be used to iterate over the elements of a list in Python?	4	L1
9	How can command line arguments be accessed and utilized in a program?	5	L1
10	What is the concept of the format operator in Python	5	L1

Part-B

Answer All the following questions. (10MX 5=50Marks)			
11	Explain in detail the flow chart symbols. Draw a flow chart to find whether a given number is an even or odd number. (10)	1	L2
OR			
12	Describe recursion as a strategy for algorithm development. Explain the concept of a recursive function and provide examples of problems that can be solved using recursion. (10)	1	L2
13	Discuss functions in Python, including their definition and use. Explain how functions help modularize code and promote code reusability. Provide examples of defining and calling functions in Python. (10)	2	L2
OR			
14	Provide an illustrative program that circulates the values of n variables. Explain the logic and algorithm used to achieve the circular rotation of values. (10)	2	L2
15	Explain how the "if-elif-else" statement works in Python. Discuss its use in handling multiple conditions and provide an example illustrating its functionality. (10)	3	L2

	OR		
16	Describe the concept of string slices in Python. Explain how string slices allow you to extract portions of a string by specifying start and end indices. Provide examples to illustrate string slicing. (10)	3	L2
17	Describe the process of cloning a list in Python. Explain how a new list can be created with the same elements as an existing list, ensuring that they are independent objects. Provide examples to illustrate list cloning techniques. (10)	4	L2
	OR		
18	How can a loop be used to iterate over the elements of a list in Python? Discuss the different types of loops that can be used and provide examples to demonstrate their usage. (10)	4	L2
19	Discuss the sys module and the argv attribute for accessing command line arguments. Provide examples to illustrate the usage of command line arguments. (10)	5	L2
	OR		
20	Discuss commonly used dictionary methods in Python. Explain the purpose and usage of methods like keys(), values(), items(), get(), update(), and pop(). Provide examples to illustrate their functionality. (10)	5	L2