



R22 Regulation

Subject code: 4E2AT

TKR COLLEGE OF ENGINEERING AND TECHNOLOGY

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

**B.Tech II Semester Regular Examinations, September 2023**

**PROBLEM SOLVING USING PYTHON**

(IT)

Maximum Marks: 60

Date: 14.09.2023 Duration: 3 hours

- Note:
1. This question paper contains two parts A and B.
  2. Part A is compulsory which carries 10 marks. Answer all questions in Part A.
  3. Part B consists of 5 Units. Answer any one full question from each unit.
  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

(10x1M=10 Marks)

- 1 How does flow of control work?
- 2 Which is better iteration or recursion?
- 3 List out four built in data types in Python.
- 4 What is Fruitful Functions?
- 5 List out immutable data types.
- 6 What is pass statement?
- 7 Differentiate between List, Tuple and Dictionary.
- 8 List down various sorting algorithms and compare them.
- 9 What are types of File?
- 10 How does try and except statement works?

Part-B

Answer All the following questions.

(5X10M=50Marks)

- 11 Write algorithm, pseudo code and flow chart for finding the biggest of 3 numbers. (10)  
OR
- 12 Explain in detail about building blocks of algorithms. (10)
- 13 Explain in detail about precedence of python operators and the associative of python operators. (10)  
OR
- 14 A) Explain the Looping concepts in Python. (6)  
B) Write Python Program to illustrate the Sum of natural numbers up to n. (4)
- 15 A) Explain the concept of for loop in python. (6)  
B) Write a python program to find sum of first 100 natural numbers. (4)  
OR
- 16 What is the difference between break and continue in python? Explain with suitable examples. (10)
- 17 What is tuple in Python? How does it differ from list? Explain the tuples manipulations. (10)  
OR
- 18 Explain briefly the addition, multiplication and transpose of matrices. (10)
- 19 A) Explain in detail on File Handling and exceptions. (6)  
B) Explain the concept "append" and "write" in files with example. (4)  
OR
- 20 What is an exception? Elaborate exception handling mechanisms in Python. (10)

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