R20 Regulation *Subject code: 3P5FB*

TKR COLLEGE OF ENGINEERING AND TECHNOLOGY

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

B.Tech V Semester Supplementary Examinations, June/July 2023

PYTHON PROGRAMMING

(INFORMATION TECHNOLOGY)

Maximum Marks: 70 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)

1 List the basic data types of Python
2 What are membership operators? Give examples for usage
3 What is the necessity of the continue statement?
4 Write a for loop that prints numbers from 0 to 50, using range function.
5 Mention any four list methods
6 What is a tuple?
7 What is sorted() built-in function
8 What is a Lambda function
9 How to create Numpy ndarray object
10 What is Pandas

Part-B

Answer All the following questions. (5X10M=50Marks)

11 Write a Python program that reads four integers from user, prints them with a single print statement, without any space or newline between/after the values. (10)

OR

12 Write a Python program to illustrate all the arithmetic operators of Python. Read values from the user and display the result values suitably formatted. (10)

13 What is the purpose of else clause for a loop? Explain how else works with while and for loops, with examples. (10)

OR

14 What are the different loop control statements available in python? Explain with suitable examples. (10)

15 A. Create a Numpy array filled with all ones. (5)
B. What are built-in dictionary functions? Explain. (5)

OR

16 Give a comparison between lists, tuples, dictionaries. (10)

17 Write a Python program that counts the number of occurrences of a letter in a string, using dictionaries. (10)

OR

18 Write a Python function that computes the harmonic sum of n. (10)
Harmonic Sum = (1/2) + (1/4) + (1/8) + (1/16) + ... + $(1/2^n)$

19 A. Explain different statistical and mathematical methods of Numpy. (5)
B. How to handle missing data in Pandas. (5)

OR

20 Explain about Pandas Series and Dataframes with an example. (10)