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NATIONA INSTITUTE OF TECHNOLOGY, HAMIRPUR End Semester Examination-November, 2022 BTech 5<sup>th</sup> SEM (Mathematics and Computing) MA-314, Programming in Python

Time: 3:00 Hours, Max Marks: 50

912/2022
m
(180)

Q.1(A)	What are the problem solving aspects? Explain each in detail.	05M
Q.1(B)	Describe algorithm? Write an algorithm to generate Fibonacci sequence with a suitable explanation.	05M
Q.2	What are the main features of Python? (05) What is data type? Explain different data types with examples (05)	10M
Q.3	What is selection statement? Explain each with an example (04) Write a program to count the digits of a given number. (04)	M80
Q.4(A)	Compare list and dictionary data types. (05)  Write a program to find the sum of number in a given list. (05)  OR	10M
Q.4(B)	Define tuple. List out the inbuilt functions for tuple. Explain each. (06)  Describe the methods to access the list using for loop.(04)	10M
Q.5(A)	Define function? Identify the advantages of function? Explain them. (04)  Explain break and continue statement with suitable examples. (04)	08M
Q.5(B)	the advantages of module.	0-101