

II B. Tech I Semester Supplementary Examinations, October/November - 2020**PYTHON PROGRAMMING**

(Com to CSE & IT)

Time: 3 hours

Max. Marks: 70

Note: 1. Question Paper consists of two parts (**Part-A** and **Part-B**)2. Answer **ALL** the question in **Part-A**3. Answer any **FOUR** Questions from **Part-B**

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**PART -A**

1. a) What Python uses, static typing or dynamic typing? Justify your answer with an example. (2M)
- b) Write a for loop that prints numbers from 0 to 57, using range function. (2M)
- c) Write a Python statement that swaps values of two variables. (only one line statement) (2M)
- d) What is PIP. (2M)
- e) How to create a destructor in Python? Give an example. (3M)
- f) Write python script to print current date and time. (3M)

**PART -B**

2. a) Explain the history of Python evolution. (7M)
- b) 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. (7M)
3. a) What is the purpose of else clause for a loop? Explain how else works with while and for loops, with examples. (8M)
- b) Write a Python program that prints multiplication table of a given number. (6M)
4. a) What is a list in Python? How to create nested lists? Demonstrate how to create and print a 3-dimensional matrix with lists. (7M)
- b) Write a Python program that counts the number of occurrences of a letter in a string, using dictionaries. (7M)
5. a) Explain about different types of arguments in Python. (8M)
- b) Write a Python function that computes the harmonic sum of n. (6M)  
Harmonic Sum =  $(1/2) + (1/4) + (1/8) + (1/16) + \dots + (1/2^n)$
6. a) Demonstrate implementation of hierarchical inheritance in Python, with a program. (7M)
- b) What happens if except clause is written without any Exception type? Explain with an example. (7M)
7. a) Explain how to write test cases in Python. (7M)
- b) Write a Python turtle program to draw a blue square of size 200 and the draw a green circle which touches the square on all sides from inside. (7M)