## II B. TECH II SEMESTER REGULAR EXAMINATIONS, AUG/SEPT 2021 PYTHON PROGRAMMING (Mechanical Engineering)

Note: Answer **ONE** question from each Unit (5 × 12 = 60 Marks) UNIT - I Write a Program to read the radius of circle and print the area of circle. 1. [6M] a) Write a Program to initialize a string "hello world" to a variable str1 and convert b) [6M] the string to upper case. (OR) 2. Write a program to read a four-digit number from the keyboard and calculate the [6M] a) sum of its digits. Explain about bitwise and relational operators in python. [6M] b) UNIT – II Write a program in terms of if-else statement in python: 3. a) [6M] If temperature greater than 50 then temperature is hot, otherwise temperature is cold. Illustrate nested if statement with suitable example. b) [6M] (OR) 4. When is the break statement used in python? a) [6M] When the continue statement is used in python? [6M] b) UNIT – III Differentiate between user defined and library defined functions? 5. [6M] a) b) What is the use of a return statement in python, explain with simple program? [6M] (OR) 6. What are the advantages of functions? [6M] a) What are arguments? Explain how the arguments passed to a function with a [6M] b) simple program. UNIT-IV 7. State the syntax to define a class? [6M] a) How are attributes added to class, show with a simple python program? [6M] b) (OR) What is self parameter and list its uses? 8. [6M] a) What can be done with overriding a method, show with a small program? [6M] b) UNIT-V 9. Differentiate between error and exception? How to handle exceptions in python? a) [6M]

		(OK)	
10.	a)	Explain about try expect block in python?	[6M]
	b)	Explain user defined exceptions in python?	[6M]

Define NumPy array ? List the advantages of NumPy array over nested lists ?

 $(\mathbf{O}\mathbf{D})$ 

\* \* \* \* \*

[6M]



Time: 3 hours

b)