Reg. No.															

Question Paper Code	13746

B.E. / B.Tech. - DEGREE EXAMINATIONS, APRIL / MAY 2025

Second Semester

Civil Engineering

(Common to Electronics and Communication Engineering, Electronics and Instrumentation Engineering, Mechanical Engineering & Mechanical and Automation Engineering)

20ESIT201 - PYTHON PROGRAMMING WITH LABORATORY

Regulations - 2020

Duration: 3 Hours Max. Marks: 100

PART - A (MCQ) (10 × 1 = 10 Marks)

Answer ALL Questions

		Marks	*K – Level*	*CO*
1.	Which of the following is a valid Python comment? (a) /* This is a comment */ (b) <!– This is a comment –> (c) # This is a comment (d) <!— This is a comment —>	*1*	*K1*	*CO1*
2.	Which of the following is a correct way to write a single-line if statement in Python? (a) if x == 5: print("x is 5") (b) if x == 5 then print("x is 5") (c) if x == 5 {print("x is 5")} (d) if x == 5; print("x is 5")	*1*	*K1*	*CO1*
3.	What does the 'pass' keyword signify in Python? (a) It is used to halt the execution of a loop. (b) Developers use it to indicate the end of a function. (c) It executes a block of code only if a condition is true. (d) When executed, it performs a null operation, meaning it does nothing.	*1*	*K1*	*CO2*
4.	What is the correct way to start a for loop in Python? (a) for i in range(10): (b) for i = 0; i < 10; i++: (c) foreach i in range(10): (d) loop i in range(10):	*1*	*K1*	*CO2*
5.	What is the output of the following Python code snippet? T = (1, 2, 3) print(T[1]) (a) 1 (b) 2 (c) 3 (d) Error: Tuples are immutable	*1*	*K1*	*CO3*
6.	What does pop() method do when used on a Python dictionary? (a) Removes and returns the last item of the dictionary (b) Removes and returns the item with the specified key (c) Removes and returns the item at the specified index (d) Removes and returns the first item of the dictionary	*1*	*K1*	*CO3*
7.	What is a recursive function? (a) A function that calls other function. (b) A function which calls itself. (c) Both A and B (d) None of the above	*1*	*K1*	*CO4*
8.	A Python module is a file with the _____ file extension that contains valid Python code. (a) .pym (b) .pymodule (c) .module (d) .py	*1*	*K1*	*CO4*
9.	Which data type in Python represents a sequence of characters? (a) Integer (b) Float (c) String (d) Boolean	*1*	*K1*	*CO5*
10.	Which of the following is a valid reason to use custom exceptions in Python? (a) To replace built-in exceptions (b) To handle unexpected errors (c) To confuse the programmer (d) To reduce code readability	*1*	*K1*	*CO6*

PART - B (12 × 2 = 24 Marks)

Answer ALL Questions

11.	Summarize Python interpreter and its purpose.	2	K2	CO1
12.	Discuss membership operator with an example.	2	K2	CO1
13.	Write a Program to display the characters entered by the user.	2	K2	CO2
14.	Write the syntax for while loop and give example.	2	K2	CO2
15.	Interpret string replication with an example.	2	K2	CO3
16.	Differentiate between tuple and dictionaries.	2	K2	CO3
17.	Compare Local and Global variables in Python functions.	2	K2	CO4
18.	Write a program to print Fibonacci series using Recursion.	2	K2	CO4
19.	Write a syntax to define an user defined function.	2	K2	CO5
20.	Explain the steps to open a new file in Python.	2	K2	CO5
21.	Interpret four common exception names in Python.	2	K2	CO6
22.	What is a value error in Python?	2	K1	CO6

PART - C (6 × 11 = 66 Marks)

Answer ALL Questions

23.	a)	Discuss about constant, variables, expression, keywords and statements available in python.	11	K2	CO1
		OR			
	b)	Explain in detail about the various conditional statements with an example.	11	K2	CO1
24.	a)	Write a Python program using for loop to calculate the average of first n natural numbers.	11	K3	CO2
		OR			
	b)	Write a program to find whether the given number is an Armstrong number or not.	11	K3	CO2
25.	a)	Illustrate the operations and methods that are available with Python tuple objects.	11	K2	CO3
		OR			
	b)	Discuss in detail about the methods and operations of Dictionaries.	11	K2	CO3
26.	a)	Illustrate to create a package and import it. Give examples.	11	K2	CO4
		OR			
	b)	Illustrate the working principle of Recursion with an example.	11	K2	CO4
27.	a)	Write a program to find whether the given number is prime or not.	11	K3	CO5
		OR			
	b)	Write the program to print first n numbers using the range() in a for loop.	11	K3	CO5
28.	a)	Explain about user defined exceptions with example program.	11	K2	CO6
		OR			
	b)	Describe how to access class variables using objects with an example.	11	K2	CO6