

Sub Code: KNC-302
Time: 1 Hours

Sub: Python Programming
Max. Marks: 15

Roll No.								
-----------------	--	--	--	--	--	--	--	--

Q. No.	Question	Marks	CO
1	Find the value of		
a	$3\%10$	01	1
b	$10011101 \& 11100011$	01	1
c	$32\%64$	01	1
d	$44//3$	01	1
e	$5\%2==0$ and $20\%5==0$	01	1
2	Attempt all parts of the following:		
a	What do you mean by system software and application software?	2.5	1
b	Explain LIST,TUPLE,SET,DICTIONARIES	2.5	1
3	Attempt all parts of the following		
a	What do you understand by Tokens? Explain each part in detail.	2.5	1
b	Write a Python Program to calculate student percentage in five subject.	2.5	1

Sub Code: KNC-402
Time: 1 Hours

Sub: Python Programming
Max. Marks: 15

Roll No.

--	--	--	--	--	--	--	--	--

Q- No.	Question	Marks	CO
1	Find the value of		
a	$32 >> 2$	01	1
b	$16 << 3$	01	1
c	$32 \% 7$	01	1
d	$44 / 3$	01	1
e	$5 \% 2 == 0$ and $20 \% 5 == 0$	01	1
2	Attempt all parts of the following:		
a	Differentiate between IDE & IDLE.	2.5	2
b	Explain LIST, TUPLE, SET, DICTIONARIES with suitable example.	2.5	1
3	Attempt any two parts of the following		
a	Differentiate between object oriented programming and procedure oriented programming with suitable example.	2.5	2
b	Write a program to convert upper case letter to lower case and vice-versa.	2.5	2
c	Write a program to find largest no among three no using NESTED IF-ELSE.	2.5	2

Bundelkhand Institute of Engineering and Technology, Jhansi
Department of Information Technology
Class Test 1 (2021-2022)
B.Tech III Semester (EE+CE+CH)

Sub Code: KNC-302
 Time: 1 Hours

Sub: Python Programming
 Max. Marks: 15

INSTRUCTION: Attempt all the questions.

Roll No.

2	0	0	4	3	2	0	0	4	9
---	---	---	---	---	---	---	---	---	---

Q. No.	Question	Marks	CO
1	Attempt all parts of the following:		
	a Explain the term object oriented concepts with suitable example.	02	1
	b What are the differences between Tuple, List, SET and Dictionary?	02	1
	c What is an Algorithm? make an algorithm for swap of two value	02	1
2	Attempt all parts of the following:		
	a What do you mean by comment in python? Explain with suitable example.	02	1
	b Find the output of the following	03	1
	1. $9 \% 2$ 2. $a = 8.6$ $b = 2$ print a/b 3. $a = \text{'student'}$, $b = \text{'rollno'}$ then what is the output of $c = a-b$ print(c) <i>C = a + b</i> <i>error</i> <i>Student Roll no</i>		
3	Write a Python program to calculate actual salary of an employee when HRA is 7.5 % , TA is 8.5%, DA is 9.5% and Income tax is 10.5% of Basic salary.	04	1

Bundelkhand Institute of Engineering and Technology, Jhansi
Department of Information Technology
Class Test II (2021-2022)
B.Tech III Semester (EE+CE+CH)

Sub Code: KNC-302
 Time: 1 Hours

Sub: Python Programming
 Max. Marks: 15

INSTRUCTION: Attempt all the questions

Roll No.

--	--	--	--	--	--	--	--	--	--

Q. No.	Question		Marks	CO												
1	Attempt all parts of the following:															
	a	Describe Arithmetic Operators, Assignment Operators, Comparison Operators, Logical Operators and Bitwise Operators.	02	1												
	b	What are the differences between if else and nested if else with suitable example.	02	2												
	c	Write Python code to check if a given year is a leap year or not.	02	2												
2	Attempt all parts of the following:															
	a	Write Python program to convert uppercase letters to lowercase and vice versa.	02	2												
	b	Write a Python program to check whether a number is zero, positive, negative, even, odd or complex number.	03	2												
3	Write a Python program to calculate actual salary of an employee when HRA is 7.5 % , TA is 8.5%, DA is 9.5% and the details are given below		04	3												
	<table><thead><tr><th>Salary</th><th>Income Tax</th></tr></thead><tbody><tr><td>UPTO 10000</td><td>NILL</td></tr><tr><td>>10000 to 25000</td><td>5%</td></tr><tr><td>>25000 to 40000</td><td>8%</td></tr><tr><td>>40000 to 80000</td><td>12.5%</td></tr><tr><td>>80000</td><td>15%</td></tr></tbody></table>		Salary	Income Tax	UPTO 10000	NILL	>10000 to 25000	5%	>25000 to 40000	8%	>40000 to 80000	12.5%	>80000	15%		
	Salary	Income Tax														
	UPTO 10000	NILL														
	>10000 to 25000	5%														
	>25000 to 40000	8%														
>40000 to 80000	12.5%															
>80000	15%															

Bundelkhand Institute of Engineering & Technology, Jhansi
Class Test II (2021-2022)
III Semester EE/CE/CH (B.Tech)

Sub Code: KNC-302
 Time: 1 Hours

Sub: Python Programming
 Max. Marks: 15

INSTRUCTION:

Roll No.

--	--	--	--	--	--	--	--	--	--

Q. No.	Attempt all the questions	Marks	CO
1	Find the value of		
a	X = 21, A = 2, B = 3, C = 1 N = (A * B * C * X) Print(N)	01	1
b	256 & 128	01	1
c	32 // 64	01	1
d	print(chr(ord('b') - 1))	01	1
e	len('tuple variable')	01	1
2	Attempt all parts of the following:		
a	Write a program to check vowel and consonant.	2.5	2
b	Differentiate between Nested if-else and elif ladder with suitable example.	2.5	2
3	Attempt any two parts of the following:		
a	Write a program to Print Factorial of any given number	2.5	2
b	Write a program to check whether your no. is prime or not	2.5	2
c	Write a program to print following pattern * 4 5 3 4 5 2 3 4 5 1 2 3 4 5	2.5	2

10/120 9/250

(Roll No. to be filled by candidate)									
2	0	0	4	3	2	0	0	4	9

B. TECH.
THIRD SEMESTER THEORY EXAMINATION, 2021-22
KNC-302
PYTHON PROGRAMMING

Time: 02 Hours**Max. Marks: 50**

Note:

- Attempt all questions. All questions carry equal marks.

1. Attempt any **FOUR** parts of the following: 4×2.5 CO
 - a. ☒ Differentiate between procedures oriented and object oriented programming languages. CO1
 - b. What do you understand by open source software? Write any five open source software name. CO1
 - c. ☒ What do you mean by Operators? Explain each part in details CO1
 - d. ☒ What is an algorithm? Make an algorithm to find the largest number among three numbers. CO1
 - e. Differentiate between mutable and immutable data type used in Python. CO1
 - f. ☒ What is the Indentation? How it is useful in Python Programming? Explain with suitable example. CO1
2. Attempt any **TWO** parts of the following: 2×5 CO
 - a. ☒ Write a Python program to convert capital letter into small letter and vice-versa CO2
 - b. Differentiate between break and continue with suitable example CO2

- c. Write a Python program to calculate actual price on CO2 purchase of computer

Price(Rs)	Discount (%)
Upto 10,000	4
>10,000 to 25,000	7
>25,000 to 40,000	9
>40,000 to 70,000	12
>70,000 to 1 lac	15
>1 lac	25

3. Attempt any *TWO* parts of the following: 2×5 CO
- Differentiate between for and while loop with suitable example. CO3
 - Write a Python program to check Prime number or not. CO3
 - Write a Python program to check whether your number is palindrome number or not. CO3

4. ✓ Attempt any *TWO* parts of the following: 2×5 CO
- What do you mean by Function in Python? Differentiate between actual argument and formal argument with suitable example. CO4
 - Find factorial of given number using function. CO4
 - What is recursion? Print Fibonacci series up to n term using recursion. CO4

5. ✓ Attempt any *TWO* parts of the following: 2×5 CO
- Differentiate class, object, abstraction, polymorphism, encapsulation And inheritance with suitable example. CO5
 - What is file in python programming? Explain various operations performed on file CO5
 - How many operations are performed on a list? Explain any one of the following. CO5

(Roll No. to be filled by candidate)

2100430200022

THIRD SEMESTER THEORY EXAMINATION, 2022-23

KNC-302

PYTHON PROGRAMMING

Time: 02 Hours

Max Marks: 50

Note

- Attempt all questions

1. Attempt any four of the following: CO1 [4x2.5]

- Differentiate between IDE and IDLE with suitable example.
- ✓ What do you understand by object oriented programming vs procedure oriented programming.
- c. Differentiate between single line and multi-line comment? How it's useful in programming?
- ✓ d. What is an algorithm? Make an algorithm to find the largest number among three numbers.
- ✓ e. Differentiate between Tuple, LIST, SET and Dictionaries.
- f. Write a Python Program to convert Rupees into Dollar and Euro.

2. Attempt any two of the following: CO2 [2x5]

- ✓ a. Write a Python program to print series
 $S = X^1/1! + X^2/2! + X^3/3! + \dots$ UPTO 10 Term.
- ✓ b. Write a Python program to make a calculator of any two numbers to perform addition, subtraction, multiplication, division, modulus and floor division.
- c. Differentiate between goto and pass statement with suitable example.

3. Attempt any two of the following: CO3 [2x5]

- ✓ a. Write a python program to print Tribonacci series upto ten terms.

Total Number of Printed Pages: 02

KNE 102

- ☒ b. Differentiate between break and continue with suitable example.
- ☒ c. Write a Python program to check whether your number is palindrome number or not.

CO4 [2x5]

4. Attempt any two of the following:

- ☒ a. What do you mean by Function in Python? Differentiate between actual argument and formal argument with suitable example.
- ☒ b. Write a python program to find GCD of any two given number.
- ☒ c. What is recursion? Find factorial of any given number using recursion.

CO5 [2x5]

5. Attempt any two of the following:

- ☒ a. What is file in python programming? write a program to perform open, read, write and append in "student.txt"
- ☒ b. Explain tuple and it's all operation with suitable example.
- ☒ c. Write a python program to sort ten elements in a given list.

(Roll No. to be filled by candidate)

B. TECH.
FOURTH SEMESTER THEORY EXAMINATION, 2022-23
KNC-402
PYTHON PROGRAMMING

Time: 02 Hours**Max. Marks: 50****Note:** Attempt all questions. All questions carry equal marks.

1. Attempt any **FOUR** parts of the following: 4×2.5 CO
 - a. What is the difference between Python Arrays and lists? CO1
 - b. Define floor division with example. CO2
 - c. Solve the Tower of Hanoi problem for n= 3 disk and show all the steps. CO2
 - d. How to create and import a module in Python? CO3
 - e. Explain the term Merge List in Python Programming. CO5
 - f. Explain the basic data types available in Python with examples. CO3

2. Attempt any **TWO** parts of the following: 2×5 CO
 - a. Consider a Rectangle Class and Create Two Rectangle Objects. Write Python program to Check Whether the Area of the First Rectangle is Greater than Second. CO2
 - b. Write Python program to sort numbers in a list in ascending order using Bubble Sort. CO5
 - c. Discuss ADT in python. How to define ADT? CO4

3. Attempt any **TWO** parts of the following: 2×5 CO
 - a. Write a recursive function to compute the factorial of an input number N. CO2
 - b. Write a program to sort list of dictionaries by values in Python – Using lambda function. CO3
 - c. Explain the purpose and working of loops. Discuss Break and continue with example. CO2

4. Attempt any **TWO** parts of the following: 2×5 CO
- a. Discuss Exceptions and Assertions in python. How to handle Exceptions with Try-Finally? Explain 5 Built-in Exceptions with example. CO4
 - b. Describe the difference between Python os and os.path modules. Also, discuss the following methods of os module
a) chdir() b) rmdir() c) walk() d) listdir() e) getcwd() CO3
 - c. Write Pythonic code to sort a sequence of names according to their alphabetical order without using sort() function. CO3
5. Attempt any **TWO** parts of the following: 2×5 CO
- a. Write a Python program to check the validity of a password given by the user. The Password should satisfy the following criteria: CO4
 - 1. Contain at least 1 letter between a and z
 - 2. Contain at least 1 number between 0 and 9
 - 3. Contain at least 1 letter between A and Z
 - 4. Contain at least 1 character from \$, #, @
 - 5. Minimum length of password: 6
 - 6. Maximum length of password: 12
 - b. Explain the concept of scope and lifetime of variables in Python programming language with an example. CO2
 - c. Describe Arithmetic Operators, Logical Operators and Bitwise Operators in detail with examples. CO1