

22025

MAKE-UP EXAM

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BPLCK205B/ BPLCKB205

Second Semester B.E./B.Tech. Degree Examination, Nov./Dec. 2023

Introduction to Python Programming

Time: 3 hrs.

Max. Marks: 100

Note: 1. Answer any FIVE full questions, choosing ONE full question from each module.
2. M : Marks, L: Bloom's level, C: Course outcomes.

| Module - 1 | | | M | L | C |
|------------|----|---|----|----|-----|
| Q.1 | a. | Demonstrate with example print(), input() and format (). | 5 | L1 | CO1 |
| | b. | Explain conditional branching statements with syntax and write a suitable program for the same. | 7 | L2 | CO1 |
| | c. | Write a python program to check whether a given number is Armstrong or not. [Hint – An Armstrong number is any number of n digits which is equal to the sum of n th power of digits in the number. For example, 371 is an Armstrong number since $3^3 + 7^3 + 1^3 = 371$] | 8 | L3 | CO1 |
| OR | | | | | |
| Q.2 | a. | Write a python program to guess the secret number between 1 to 25 within 5 guess if the number is same then it is right guess else wrong guess. | 8 | L3 | CO1 |
| | b. | What are user defined function? How can we pass the arguments to the functions? Explain with suitable examples. | 6 | L1 | CO1 |
| | c. | What are comparison and Boolean operators? List all the comparison and Boolean operators in python. | 6 | L1 | CO1 |
| Module - 2 | | | | | |
| Q.3 | a. | Explain the methods of list data types in python for the following operation with suitable code snippets for each. i) Adding values to a list ii) Removing values from a list iii) Finding a value in a list iv) Sorting the values in a list | 8 | L1 | CO2 |
| | b. | Explain the concept of list slicing and list traversing with an example. | 6 | L1 | CO2 |
| | c. | What is a dictionary? Write a python program to count occurrences of characters in a string and print the count. | 6 | L3 | CO2 |
| OR | | | | | |
| Q.4 | a. | Write a python program that find the missing number from the given a list n-1 numbers ranging from 1 to n, There are no duplicates (Hint – eg : Input = 1 2 4 6 3 7 8, output : 5) | 10 | L3 | CO2 |
| | b. | How is triple different from list()? Explain with example the function used to convert list into triple and triple into list. | 6 | L1 | CO2 |
| | c. | Explain insert() and remove() methods of list with example. | 4 | L1 | CO2 |

Module – 3

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|-----|----|---|----|----|-----|
| Q.5 | a. | Write a python program to count number of lines in a file. | 5 | L3 | CO1 |
| | b. | Explain the following functions with example : i) makedirs() ii) getcwd() iii) velpath() iv) listdir() v) sub() | 10 | L1 | CO1 |
| | c. | What are three “mode” arguments that can be passed to open() function with example. | 5 | L1 | CO1 |

OR

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|-----|----|--|---|----|-----|
| Q.6 | a. | With code snippet, explain saving variables using the shelve module and print pformat() functions. | 6 | L2 | CO2 |
| | b. | Write a python program that accepts a sentence and find the number of words, digits, upper case letters and lower case letters. | 7 | L3 | CO2 |
| | c. | Write a program to make a new string with all the consonant eliminated from the string read from the user [Hint – For example Input: Hello, have a good day. Output : Hll, hv gd dy] | 7 | L3 | CO2 |

Module – 4

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|-----|----|---|----|----|-----|
| Q.7 | a. | What is meant by compressing Files? Explain reading, extracting and creating ZIP files with an example. | 10 | L1 | CO1 |
| | b. | Define assertions. What does an assert statement in python consists of? | 5 | L1 | CO2 |
| | c. | How does OS.walk() work in python? | 5 | L3 | CO3 |

OR

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| Q.8 | a. | Discuss the basicConfig() method to configure the logging with an example. | 7 | L2 | CO2 |
| | b. | Write a program to depict Raising Exception. | 7 | L1 | CO2 |
| | c. | Explain the functions of Shutil module with example. | 6 | L2 | CO2 |

Module – 5

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|-----|----|---|---|----|-----|
| Q.9 | a. | Compare the difference between class, static and instance method. | 6 | L2 | CO4 |
| | b. | Define classes and objects in python. Create a class called Employee and initialize it with employee id and name. Design method to : i) Set Age – to assign age to the employee ii) Set Salary – to assign salary to the employee iii) Display – to display all information of the employee. | 9 | L2 | CO4 |
| | c. | Explain ---- init ---- and str --- method with an example. | 5 | L2 | CO4 |

OR

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|------|----|---|---|----|-----|
| Q.10 | a. | Write a program to implement polymorphism in python using method overriding. | 7 | L3 | CO4 |
| | b. | Define pure function? Give an example program that returns square of a passed integer. | 7 | L3 | CO4 |
| | c. | How class can be instantiated in python? Write a python program to instances as return values to define a class RECTANGLE with member width. Height cornerX cornerY and member function to find center area and perimeter of a rectangle. | 6 | L2 | CO4 |