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P.E.S. College of Engineering, Mandya - 571 401

(An Autonomous Institution affiliated to VTU, Belagavi)

Seventh Semester, B.E. - Information Science and Engineering

Semester End Examination; Jan. / Feb. - 2021

Python for Everyone

Time: 3 hrs

Max. Marks: 100

Note: Answer FIVE full questions, selecting ONE full question from each unit.

UNIT - I

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|------|---|---|
| 1 a. | What is the difference between a compiler and an interpreter? | 6 |
| b. | Illustrate the identifiers, keywords, statements, expressions and variables in python programming language with examples. | 6 |
| c. | List the basic data types available in python with example. | 8 |
| 2 a. | Describe the features and applications of python. | 8 |
| b. | Illustrate comparison between Logical and Bitwise operators with examples. | 6 |
| c. | Describe the different characteristics of an algorithm. | 6 |

UNIT - II

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|------|--|----|
| 3 a. | Describe chained conditional used in python. | 6 |
| b. | Illustrate string slices with example. | 10 |
| c. | How “in” operator used in python? | 4 |
| 4 a. | Show how the length of a string is obtained using ‘len’ built in function. | 10 |
| b. | Write python code to count the number of times the letter ‘a’ appears in a given string. | 10 |

UNIT - III

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| 5 a. | Illustrate list methods with examples. | 8 |
| b. | Explain the concept of Aliasing in python. | 4 |
| c. | Explain dictionary in python. Write its operations with suitable examples. | 8 |
| 6 a. | Illustrate traversing list with suitable example. | 10 |
| b. | How tuples are used as keys in dictionaries? | 4 |
| c. | Explain dictionaries and tuples in detail. | 6 |

UNIT - IV

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| 7 a. | Define the following: | 10 |
| | i) Class ii) Constructor iii) Destructor iv) Inheritance v) Method | |
| b. | Explain the concept of Encapsulation. | 10 |
| 8 a. | How to create classes in python? Explain with examples. | 10 |
| b. | Define Error and Exception. Distinguish between these two features. | 10 |

UNIT - V

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| 9 a. | Explain the states in life cycle of a thread. | 10 |
| b. | Explain model, view and controller pattern. | 10 |
| 10 a. | Explain two way chat script in client server programming. | 10 |
| b. | Explain parallel systems in detail. | 10 |