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| **Name :** | |  | | | |
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| **TERM END EXAMINATIONS (TEE) – December 2021- January 2022** | | | | | | | | | | |
| **Programme** | | | **:** | **B.Tech.-CSE** | | **Semester** | | | **:** | **Fall 2021-22** |
| **Course Name** | | | **:** | **Introduction to Problem Solving and Programming** | | **Course Code** | | | **:** | **CSE1021** |
| **Faculty Name** | | | **:** | **Divya Thakur** | | **Slot / Class No** | | | **:** | **D11+D12+D13/0096** |
| **Time** | | | **:** | **1½ hours** | | **Max. Marks** | | | **:** | **50** |
| **Answer ALL the Questions** | | | | | | | | | | |
| **Q. No.** | **Question Description** | | | | | | | **Marks** | | |
| **PART - A ( 30 Marks)** | | | | | | | | | | |
| 1 | (a) | Write the algorithm, pseudocode and draw the flowchart for the following:   1. To convert temperature from Fahrenheit to Celsius 2. To solve the quadratic equation. | | | | | | 10 | | |
| OR | | | | | | | | | |
| (b) | Explain operators and its type with example also define operator precedence in detail. | | | | | | 10  10 | | |
| 2 | (a) | Differentiate between lists, tuples and dictionaries. Give an example for their usage. | | | | | |
| OR | | | | | | | | | |
| (b) | Explain the purpose of loop structure in a programming language. Describe the syntax and semantics of any two loop structures provided by Python. | | | | | | 10 | | |
| 3 | (a) | Program to multiply two matrices using nested loops. | | | | | | 7  s  3 | | |
| (b) | To find factorial of a given number | | | | | |
| OR | | | | | | | | | |
| (a) | What do you understand by time trade off? Explain with all its type. | | | | | | 5  5 | | |
| (b) | Explain all the methods for Generating Pseudo-random numbers with syntax and appropriate example. | | | | | |
| **PART - B (20 Marks)** | | | | | | | | | | |
| 4 | | What do you understand by function?  Write program using function to tell user if he/she is able to vote or not. ( Consider minimum age of voting to be 18. ) | | | | | | 10 | | |
| 5 | | Write the following python programs.   1. To find whether a given number is Armstrong number or   Not.   1. Finding the Kth smallest element in array | | | | | | 10 | | |
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