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|  | **Guru Gobind Singh Foundation’s**  **Guru Gobind Singh College of Engineering and Research Centre, Nashik** | | | | | | |  | |
| **Experiment No: 01** | | | | | | | | | |
| Write a program non-recursive and recursive program to calculate Fibonacci numbers and analyse their time and space complexity. | | | | | | | | | |
| **Student Name:** | |  | | | | | | | |
| **Class:** | | **BE (Computer)** | | | | | | | |
| **Div:** | |  | | | **Batch:** | |  | | |
| **Roll No.:** | |  | | | | | | | |
| **Date of Attendance (Performance):** | |  | | | | | | | |
| **Date of Evaluation:** | |  | | | | | | | |
| **Marks (Grade) Attainment of CO Marks out of 10** | | **A** | **P** | **W** | | **T** | | | **Total** |
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| **CO Mapped** | | CO4: Analyse performance of an algorithm.  CO5: Implement an algorithm that follows one of the following algorithm design strategies: divide and conquer, greedy, dynamic programming, backtracking, branch and bound. | | | | | | | |
| **Signature of Subject Teacher** | |  | | | | | | | |

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|  | **Guru Gobind Singh Foundation’s**  **Guru Gobind Singh College of Engineering and Research Centre, Nashik** | | | | | | |  | |
| **Experiment No: 02** | | | | | | | | | |
| Write a program to solve a fractional Knapsack problem using a greedy method. | | | | | | | | | |
| **Student Name:** | |  | | | | | | | |
| **Class:** | | **BE (Computer)** | | | | | | | |
| **Div:** | |  | | | **Batch:** | |  | | |
| **Roll No.:** | |  | | | | | | | |
| **Date of Attendance (Performance):** | |  | | | | | | | |
| **Date of Evaluation:** | |  | | | | | | | |
| **Marks (Grade) Attainment of CO Marks out of 10** | | **A** | **P** | **W** | | **T** | | | **Total** |
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| **CO Mapped** | | CO4: Analyze performance of an algorithm.  CO5: Implement an algorithm that follows one of the following algorithm design strategies: divide and conquer, greedy, dynamic programming, backtracking, branch and bound. | | | | | | | |
| **Signature of Subject Teacher** | |  | | | | | | | |

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|  | **Guru Gobind Singh Foundation’s**  **Guru Gobind Singh College of Engineering and Research Centre, Nashik** | | | | | | |  | |
| **Experiment No: 03** | | | | | | | | | |
| Write a program to solve a 0-1 Knapsack problem using dynamic programming or branch and bound strategy. | | | | | | | | | |
| **Student Name:** | |  | | | | | | | |
| **Class:** | | **BE (Computer)** | | | | | | | |
| **Div:** | |  | | | **Batch:** | |  | | |
| **Roll No.:** | |  | | | | | | | |
| **Date of Attendance (Performance):** | |  | | | | | | | |
| **Date of Evaluation:** | |  | | | | | | | |
| **Marks (Grade) Attainment of CO Marks out of 10** | | **A** | **P** | **W** | | **T** | | | **Total** |
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| **CO Mapped** | | CO4: Analyse performance of an algorithm.  CO5: Implement an algorithm that follows one of the following algorithm design strategies: divide and conquer, greedy, dynamic programming, backtracking, branch and bound.. | | | | | | | |
| **Signature of Subject Teacher** | |  | | | | | | | |

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| **Experiment No: 04** | | | | | | | | | |
| Design n-Queens matrix having first Queen placed. Use backtracking to place remaining Queens to generate the final n-queen‘s matrix. | | | | | | | | | |
| **Student Name:** | |  | | | | | | | |
| **Class:** | | **BE (Computer)** | | | | | | | |
| **Div:** | |  | | | **Batch:** | |  | | |
| **Roll No.:** | |  | | | | | | | |
| **Date of Attendance (Performance):** | |  | | | | | | | |
| **Date of Evaluation:** | |  | | | | | | | |
| **Marks (Grade) Attainment of CO Marks out of 10** | | **A** | **P** | **W** | | **T** | | | **Total** |
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| **CO Mapped** | | CO4: Analyse performance of an algorithm.  CO5: Implement an algorithm that follows one of the following algorithm design strategies: divide and conquer, greedy, dynamic programming, backtracking, branch and bound. | | | | | | | |
| **Signature of Subject Teacher** | |  | | | | | | | |

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|  | **Guru Gobind Singh Foundation’s**  **Guru Gobind Singh College of Engineering and Research Centre, Nashik** | | | | | | |  | |
| **Experiment No: 05** | | | | | | | | | |
| Write a program for analysis of quick sort by using deterministic and randomized variant. | | | | | | | | | |
| **Student Name:** | |  | | | | | | | |
| **Class:** | | **BE (Computer)** | | | | | | | |
| **Div:** | |  | | | **Batch:** | |  | | |
| **Roll No.:** | |  | | | | | | | |
| **Date of Attendance (Performance):** | |  | | | | | | | |
| **Date of Evaluation:** | |  | | | | | | | |
| **Marks (Grade) Attainment of CO Marks out of 10** | | **A** | **P** | **W** | | **T** | | | **Total** |
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| **CO Mapped** | | CO4: Analyse performance of an algorithm.  CO5: Implement an algorithm that follows one of the following algorithm design strategies: divide and conquer, greedy, dynamic programming, backtracking, branch and bound. | | | | | | | |
| **Signature of Subject Teacher** | |  | | | | | | | |

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| **Experiment No: 06** | | | | | | | | | |
| Mini Project - Write a program to implement matrix multiplication. Also implement multithreaded matrix multiplication with either one thread per row or one thread per cell. Analyze and compare their performance. | | | | | | | | | |
| **Student Name:** | |  | | | | | | | |
| **Class:** | | **BE (Computer)** | | | | | | | |
| **Div:** | |  | | | **Batch:** | |  | | |
| **Roll No.:** | |  | | | | | | | |
| **Date of Attendance (Performance):** | |  | | | | | | | |
| **Date of Evaluation:** | |  | | | | | | | |
| **Marks (Grade) Attainment of CO Marks out of 10** | | **A** | **P** | **W** | | **T** | | | **Total** |
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| **CO Mapped** | | CO4: Analyze performance of an algorithm.  CO5: Implement an algorithm that follows one of the following algorithm design strategies: divide and conquer, greedy, dynamic programming, backtracking, branch and bound. | | | | | | | |
| **Signature of Subject Teacher** | |  | | | | | | | |