DEPARTMENT OF INFORMATION SCIENCE AND ENGINEERING

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| Date | 22-01-2025 | Maximum Marks | 100 |
| Course Code | 1 | Duration | 3 hours |
| Sem | IV | Improvement CIE | No |
| UG/PG | UG | Faculty: | umair |
| Course Title | DBMS |  |  |

# Part- A

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Q. No. | Questions | M | BT | CO |
| 1 | Following are the details of various jobs to be scheduled on multiple processors such that no two processes execute at the same on the same processor. | 6 | 1 | 5 |
| 2 | Consider the following undirected weighted graph. Find minimum spanning tree for the same using Kruskal’s algorithm. | 5 | 1 | 3 |
| 3 | Write down the algorithm to determine articulation points in a given undirected graph. Give any application where it is applicable. | 8 | 4 | 2 |

# Part- B

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| Q. No. | Questions | M | BT | CO |
| 1 | Define/Explain in Brief: P, NP Problem, NP, NP complete and NP-Hard problems, Travelling Salesman Problem, Polynomial reduction. | 4 | 3 | 1 |
| 2 | Following are the details of various jobs to be scheduled on multiple processors such that no two processes execute at the same on the same processor. | 6 | 1 | 5 |
| 3 | Following are the details of various jobs to be scheduled on multiple processors such that no two processes execute at the same on the same processor. | 6 | 1 | 5 |
| 4 | Write down the algorithm to determine articulation points in a given undirected graph. Give any application where it is applicable. | 8 | 4 | 2 |

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BT-Blooms Taxonomy, CO-Course Outcomes

Total Marks: 43