Breakdown

1 and 2. Multiple choice and fill in the blank (1 mark each, 15 marks)

3. Apply a technique learned in section 11 (20 marks)

Section 11: Tractability

4. Apply a technique learned in section 08 (20 marks)

Section 8: Minimum Spanning Tree

5. Apply a technique learned in section 09 (20 marks)

Section 9: Shortest Path

6. Apply a technique learned in section 10 (25 marks)

Section 10: Max Flow

7. Apply a technique learned in section 03 (5 marks)

Section 3: Heaps and Heap Sort

8. Apply a technique learned in section 02 (15 marks)

Section 2: Divide and Conquer, Recurrences

9. Apply a technique learned in sections 01 and 02 (10 marks)

10. Apply a technique learned in sections 01 and 02 (5 marks)

11. Design a divide-and-conquer, greedy, branch and bound, or dynamic programming algorithm in C++, Python, or Java (25 marks)

12. Design a divide-and-conquer, greedy, branch and bound, or dynamic programming algorithm in C++, Python, or Java (25 marks)