Assignment 10

The due date for submitting this assignment has passed.
As per our records you have not submitted this assignment.

1. In branch and bound method:
   - Does it solve a large problem into a few smaller ones and this is the branching part?
   - While the compacting part is done by examining how good a solution we can get for each smaller problems.
   - Both A and B statements are true
   - None of the above is true
   - Is there an answer to incorrect?
   - Score: 0
   - Accepted Answers:
     - Both A and B statements are true
   - 1 point

2. To solve an all-or-nothing one has to divide the problem further, until one obtains a problem that can be handled back.
   - This is the bounding part.
   - True
   - False
   - Is there an answer to incorrect?
   - Score: 0
   - Accepted Answers:
     - True
   - 1 point

3. The goal of a branch and bound algorithm is to find a value that________ the value of a real-valued function f(x), called an objective function, among
   - some set of admissible, or candidate solutions
   - maximizes or minimizes
   - a vertex
   - a vertex and its subspaces
   - Is there an answer to incorrect?
   - Score: 0
   - Accepted Answers:
     - maximizes or minimizes
   - 1 point

4. When using the branch and bound method in integer programming maximization problem, the stopping rule for branching is to continue until
   - the objective function is zero
   - the lower bound exceeds the upper bound
   - the lower bound is less than or equal to the lower bound or no further branching is possible
   - the lower bound matches zero
   - Is there an answer to incorrect?
   - Score: 0
   - Accepted Answers:
     - the lower bound is less than or equal to the lower bound or no further branching is possible
   - 1 point

5. The first step in a branch and bound approach to solving linear programming problems is to
   - split the problem
   - change the objective function to change whole integer numbers
   - solve the original problem using LP by allowing continuous noninteger solutions
   - compare the lower bounds to any upper bound of the choice.
   - Is there an answer to incorrect?
   - Score: 0
   - Accepted Answers:
     - compare the lower bounds to any upper bound of the choice.
   - 1 point

6. Which of the following is not a branch and bound strategy to generate branches?
   - LP branch and bound
   - FBP branch and bound
   - Lowest cost branch and bound
   - Highest cost branch and bound
   - Is there an answer to incorrect?
   - Score: 0
   - Accepted Answers:
     - Lowest cost branch and bound
   - 1 point

7. Which data structure is used for implementing a LP branch and bound strategy?
   - stack
   - queue
   - array
   - linked list
   - Is there an answer to incorrect?
   - Score: 0
   - Accepted Answers:
     - queue
   - 1 point

8. Choose the correct statement from the following:
   - branch and bound is more efficient than backtracking
   - branch and bound is not suitable when a greedy algorithm is not applicable
   - branch and bound solves a problem into at least 1 new restricted subproblems
   - backtracking divides a problem into at least 1 new restricted subproblems
   - Is there an answer to incorrect?
   - Score: 0
   - Accepted Answers:
     - branch and bound solves a problem into at least 1 new restricted subproblems
   - 1 point

9. Which of the following branch and bound strategy leads to breadth first search?
   - LP branch and bound
   - FBP branch and bound
   - Lowest cost branch and bound
   - Highest cost branch and bound
   - Is there an answer to incorrect?
   - Score: 0
   - Accepted Answers:
     - Lowest cost branch and bound
   - 1 point

10. Which of the following branch and bound strategy leads to depth first search?
    - LP branch and bound
    - FBP branch and bound
    - Lowest cost branch and bound
    - Highest cost branch and bound
    - Is there an answer to incorrect?
    - Score: 0
    - Accepted Answers:
      - Highest cost branch and bound
      - 1 point