Assignment 5

The goal of optimization analysis is to find the optimization value of the constraint, given certain variables.
A) TRUE
B) FALSE

2. Ranking method is organization specific.
A) TRUE
B) FALSE

3. Rating would mean to rate these criteria on a scale of 1 to 10 in terms of importance.
A) TRUE
B) FALSE

4. Clustering methods are used to identify groups of similar objects in a multidimensional data set.
A) TRUE
B) FALSE

5. ROC curves can be used to assess the strength of your organization and its product portfolio.
A) TRUE
B) FALSE

6. For decision making with large uncertainty, where managers estimate the probabilities of the events, the most widely used decision rule is:
A) Expected payoff
B) Minimax
C) Maximum
D) Minimum regrets

7. Given the following key factors and their importance weights, determine a total weighted evaluation for A1.

<table>
<thead>
<tr>
<th>Factor</th>
<th>Importance Weights</th>
<th>A1</th>
<th>A2</th>
<th>A3</th>
</tr>
</thead>
<tbody>
<tr>
<td>C1</td>
<td>0.2</td>
<td>0.5</td>
<td>0.6</td>
<td>0.4</td>
</tr>
<tr>
<td>C2</td>
<td>0.3</td>
<td>0.5</td>
<td>0.6</td>
<td>0.5</td>
</tr>
<tr>
<td>C3</td>
<td>0.5</td>
<td>0.9</td>
<td>0.6</td>
<td>0.8</td>
</tr>
</tbody>
</table>

A1 = 0.4
A2 = 0.5
A3 = 0.6

8. Given these alternatives and their total weighted evaluation, which action should be selected?

<table>
<thead>
<tr>
<th>Alternative</th>
<th>Weighted Average</th>
</tr>
</thead>
<tbody>
<tr>
<td>A1</td>
<td>0.4</td>
</tr>
<tr>
<td>A2</td>
<td>0.5</td>
</tr>
<tr>
<td>A3</td>
<td>0.6</td>
</tr>
</tbody>
</table>

9. Which statements are true for the preference matrix procedure?
A) Performance criteria may be weighted according to perceived importance
B) Decision alternatives can be described by several performance criteria
C) Prior to calculating the total evaluation, all criteria must be normalized
D) All of the above

10. In a Max-Max problem, we need to
A) Minimize the maximum quantity used in a low-cost route
B) Minimize the maximum quantity used in a high-cost route
C) Maximize the maximum quantity used in a low-cost route
D) None of these