Assignment 3

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

Due on 2019-03-20, 23:59 IST.

1) What is the main purpose of ELECTRE III?

- ELECTRE III prioritizes alternatives based on criteria and constraints
- ELECTRE III assigns goals to alternatives
- ELECTRE III ranks alternatives based on criteria
- ELECTRE III sorts alternatives

No, the answer is incorrect.

Score: 0

Accepted Answers:

- ELECTRE III ranks alternatives based on criteria

2) If the concordance index $C(b,a)$ is greater than or equal to the partial discordance indexes (i.e. $C(b,a) \geq d_j(b,a)$, for all $j$), then the outranking degree is:

- Equal to the concordance index
- Lesser than to the concordance index
- Higher than to the concordance index
- None of the above

No, the answer is incorrect.

Score: 0

Accepted Answers:

- Equal to the concordance index

3) The.......... indicates the largest difference between the performances of the alternatives on the criterion considered such that they remain indifferent for the decision maker.

- Preference threshold
- Indifference threshold
4) The ...............indicates the largest difference between the performances of the alternatives such that one is preferred over the other on the considered criterion.

- Preference threshold
- Indifference threshold
- Partial concordance
- All of the above

No, the answer is incorrect.
Score: 0
Accepted Answers:
Preference threshold

5) The partial concordance degree in case of ELECTRE is computed on the basis of:

- linear interpolation
- Circular interpolation
- Both A and B
- None of the above

No, the answer is incorrect.
Score: 0
Accepted Answers:
linear interpolation

6) Calculate the relative closeness to the ideal solution $C_i^*$ is given by:

- $C_i^* = S_i' / (S_i^* + S_i')$
- $C_i^* > S_i' / (S_i^* + S_i')$
- $C_i^* = (S_i^* + S_i') / S_i'$
- None of the above

No, the answer is incorrect.
Score: 0
Accepted Answers:
$C_i^* = S_i' / (S_i^* + S_i')$

7) ...............selects the alternative that is the closest to the ideal solution and farthest from negative ideal alternative.

- VIKOR
- ELECTRE
- PROMETHEE
- TOPSIS

No, the answer is incorrect.
Score: 0
Accepted Answers:
TOPSIS

8) TOPSIS method consider which types of attribute for the analysis:

- Qualitative benefit attributes/criteria
- Quantitative benefit attributes
- Cost attributes or criteria
- All of the above

No, the answer is incorrect.
Score: 0
Accepted Answers:
All of the above
Using the concordance and discordance matrices, an outranking credibility degree $S(a, b)= 1 \text{ point}$ is defined on which condition as follows:

- If $d(a, b) = C(a, b)$ for each criterion $i$
- If $d(a, b) \leq C(a, b)$ for each criterion $i$
- If $d(a, b) \geq C(a, b)$ for each criterion $i$
- None of the above

No, the answer is incorrect.
Score: 0
Accepted Answers:
If $d(a, b) \leq C(a, b)$ for each criterion $i$

What scale are pairwise comparisons based on? 1 \text{ point}

- Ratio scale
- Interval scale
- Ordinal scale
- Nominal scale

No, the answer is incorrect.
Score: 0
Accepted Answers:
Ordinal scale