

Understandability of Process Models

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The aim of this questionnaire is to gather data about the understandability of business process models. The results will be analyzed and used as part of my master's thesis on the topic of measuring and comparing understandability and complexity of unstructured and structured business process models.

This questionnaire contains two parts:

- Part 1 (4 questions) aims at testing your general knowledge of BPMN.
- Part 2 (40 questions) aims at testing your level of understanding of specific BPMN diagrams. In this part, you will be shown 8 business process models, and you will be asked 5 questions about each of these models.

You will have 20 minutes for answering all questions.

When answering the questions, please bear in mind the following:

- Completing this survey is voluntary. You will not be graded for it.
- This is an anonymous survey
- Please do not try to guess any answer. If you are not reasonably sure about the answer to a given question, please simply answer "I don't know". This way the results will be more accurate.
- Mind the clock – you have only about 30 seconds per question.

Thank you for participating!

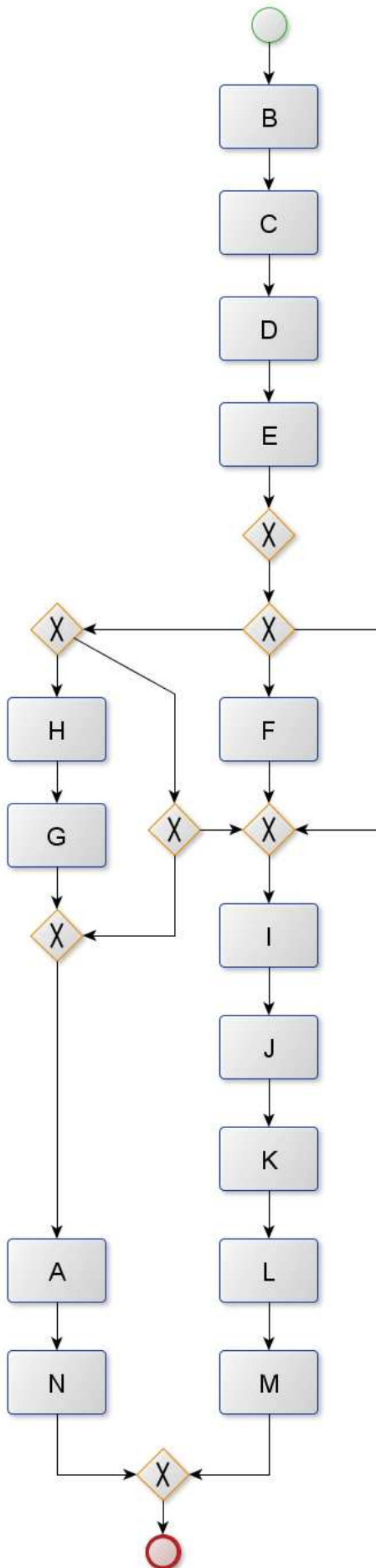
Please underline or circle the correct answer.

Part 1. General BPMN knowledge questions

- **Q1.** An OR gateway triggers the execution of either one or all of its outgoing paths.
 - True
 - False
 - I don't know
- **Q2.** Every activity between a parallel gateway and a parallel join is always executed.
 - True
 - False
 - I don't know
- **Q3.** Repetition can only be achieved by using cycles.
 - True
 - False
 - I don't know
- **Q4.** An exclusive gateway triggers the execution of exactly one of its outgoing paths.
 - True
 - False
 - I don't know

Part 2. Specific Questions

Model 1



Q0. Please rate the difficulty of the model on a 4-point scale:

- 1 – Very simple
- 2
- 3
- 4 - Very difficult

Q1. If F is not executed, is I always executed after E in that case?

- Yes / No / I don't know

Q2. Can F and G be executed for the same case?

- Yes / No / I don't know

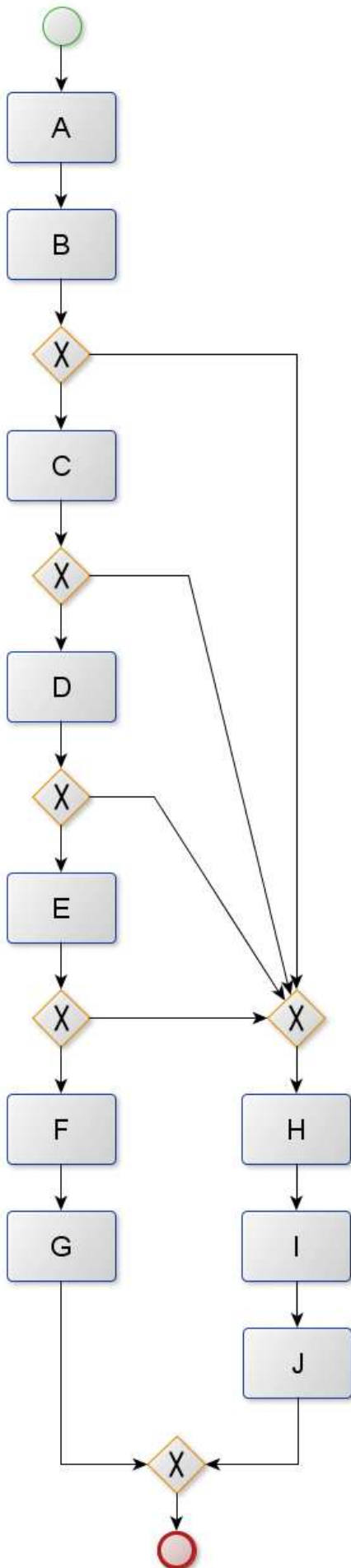
Q3. Are E and G always executed in the same case?

- Yes / No / I don't know

Q4. Is a case possible where neither of H, G or F is executed?

- Yes / No / I don't know

Model 2



Q0. Please rate the difficulty of the model on a 4-point scale:

- 1 – Very simple
- 2
- 3
- 4 - Very difficult

Q1. If C is executed for a case, can J be executed for the same case?

- Yes / No / I don't know

Q2. Is a case possible where F is executed after B?

- Yes / No / I don't know

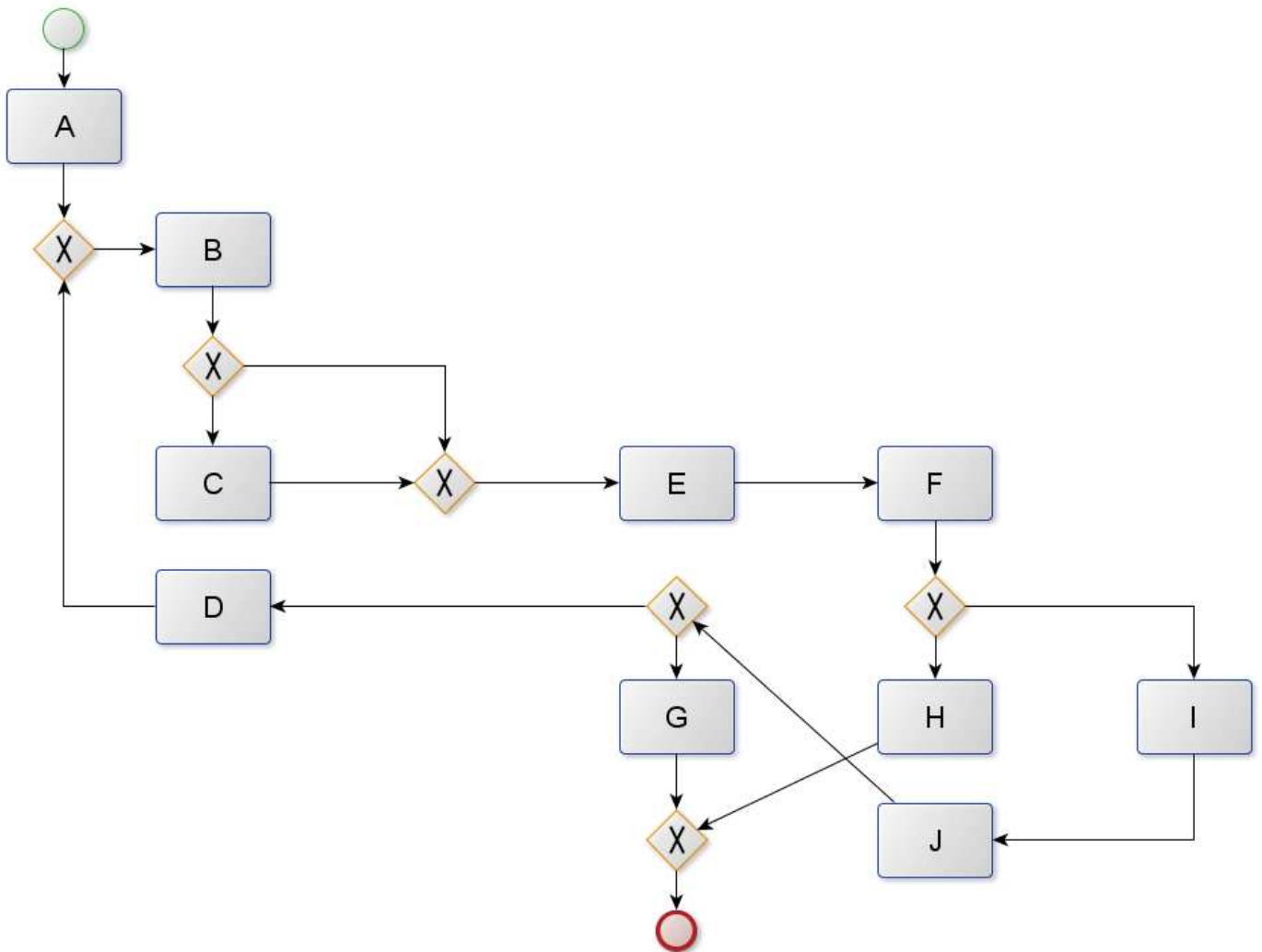
Q3. Can F and J be executed for the same case?

- Yes / No / I don't know

Q4. If C is not executed for a case, can F be executed for the same case?

- Yes / No / I don't know

Model 3



Q0. Please rate the difficulty of the model on a 4-point scale:

- 1 – Very simple
- 2
- 3
- 4 - Very difficult

Q1. Is it possible to execute both H and J in the same case?

- Yes / No / I don't know

Q2. Is it possible to execute both H and G in the same case?

- Yes / No / I don't know

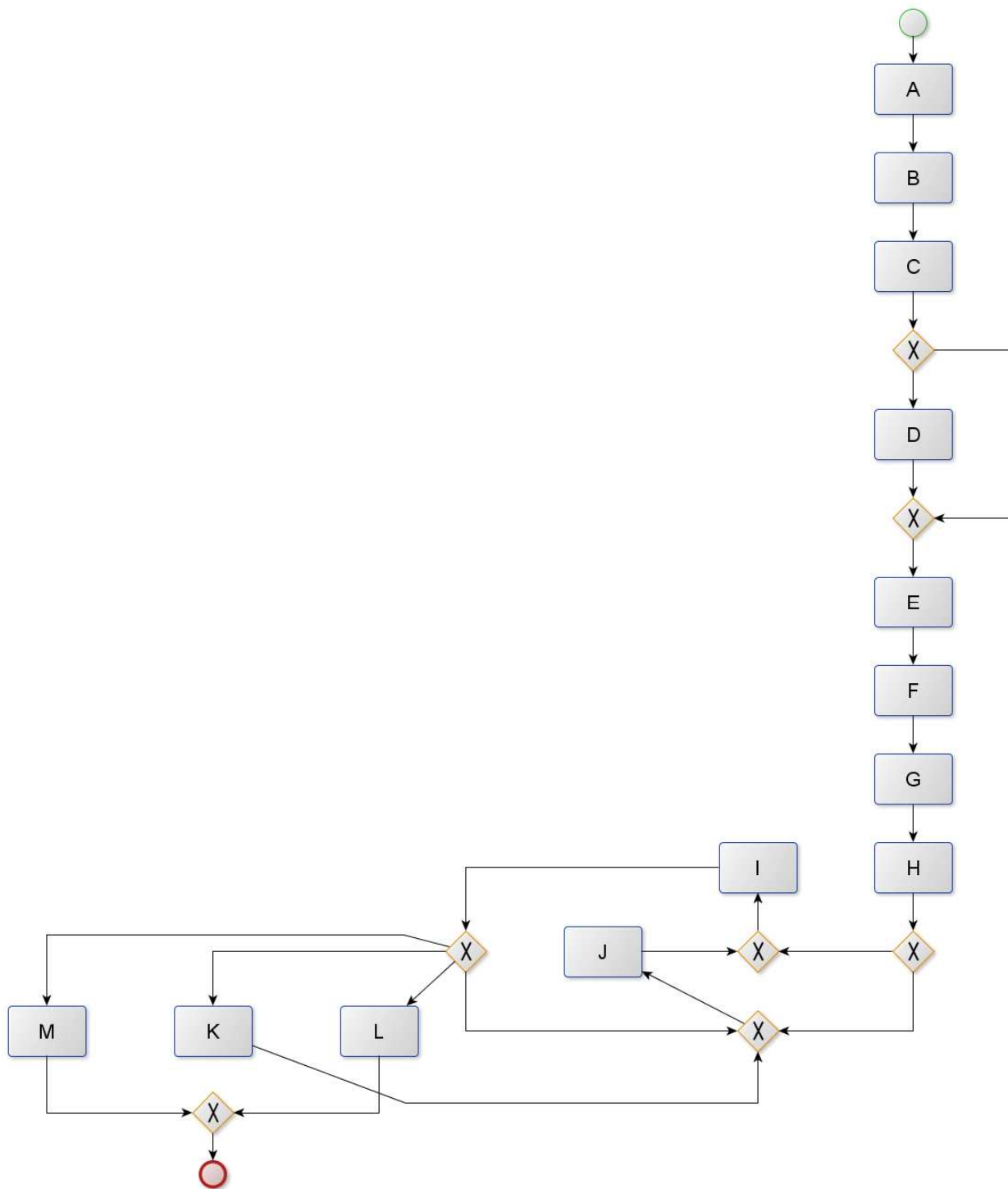
Q3. Can you execute C after E is executed?

- Yes / No / I don't know

Q4. Is it necessary to execute both D and B in the same case?

- Yes / No / I don't know

Model 4



Q0. Please rate the difficulty of the model on a 4-point scale:

- 1 – Very simple
- 2
- 3
- 4 - Very difficult

Q1. If L is executed in a case, is it possible that K has also been executed in the same case?

- Yes / No / I don't know

Q2. Can all L, K and M be executed in the same case?

- Yes / No / I don't know

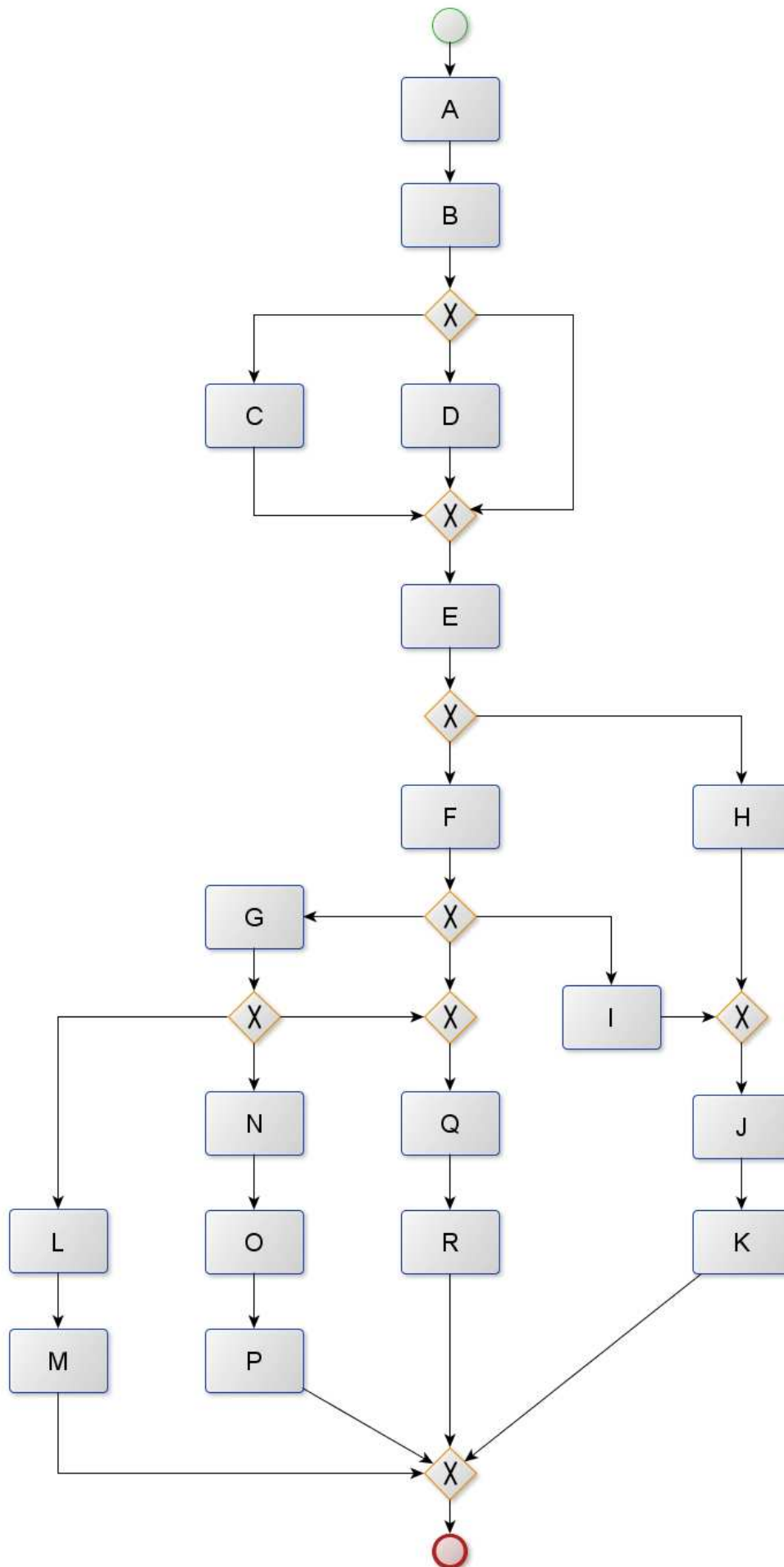
Q3. If J is executed in a case, does K also need to be executed?

- Yes / No / I don't know

Q4. Can D be executed twice?

- Yes / No / I don't know

Model 5



Q0. Please rate the difficulty of the model on a 4-point scale:

- 1 – Very simple
- 2
- 3
- 4 - Very difficult

Q1. Can H and I be executed in the same case?

- Yes / No / I don't know

Q2. If J is executed in a case, can F be executed in the same case?

- Yes / No / I don't know

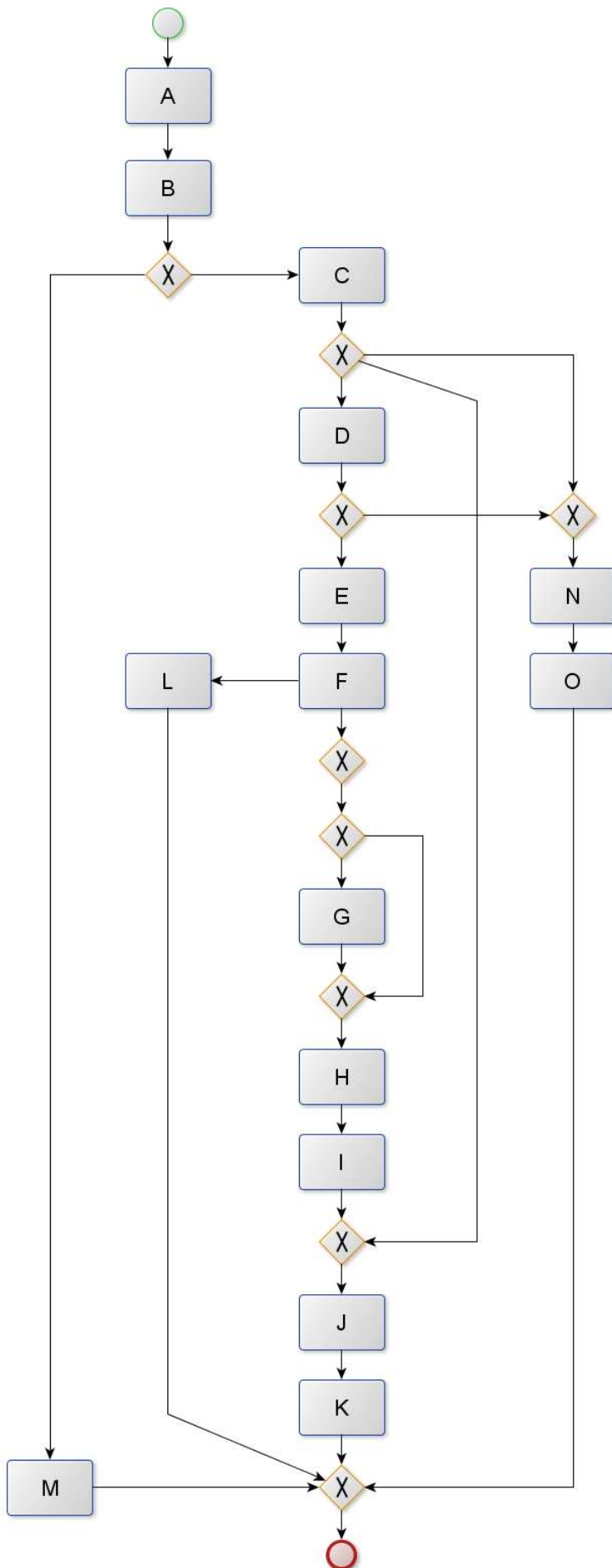
Q3. If Q is executed in a case, do both D and F have to be executed in the same case?

- Yes / No / I don't know

Q4. If G is executed in a case, can J be executed in the same case?

- Yes / No / I don't know

Model 6



Q0. Please rate the difficulty of the model on a 4-point scale:

- 1 – Very simple
- 2
- 3
- 4 - Very difficult

Q1. If D and L are both executed for a case, can N be executed for the same case?

- Yes / No / I don't know

Q2. Can J be executed directly after C?

- Yes / No / I don't know

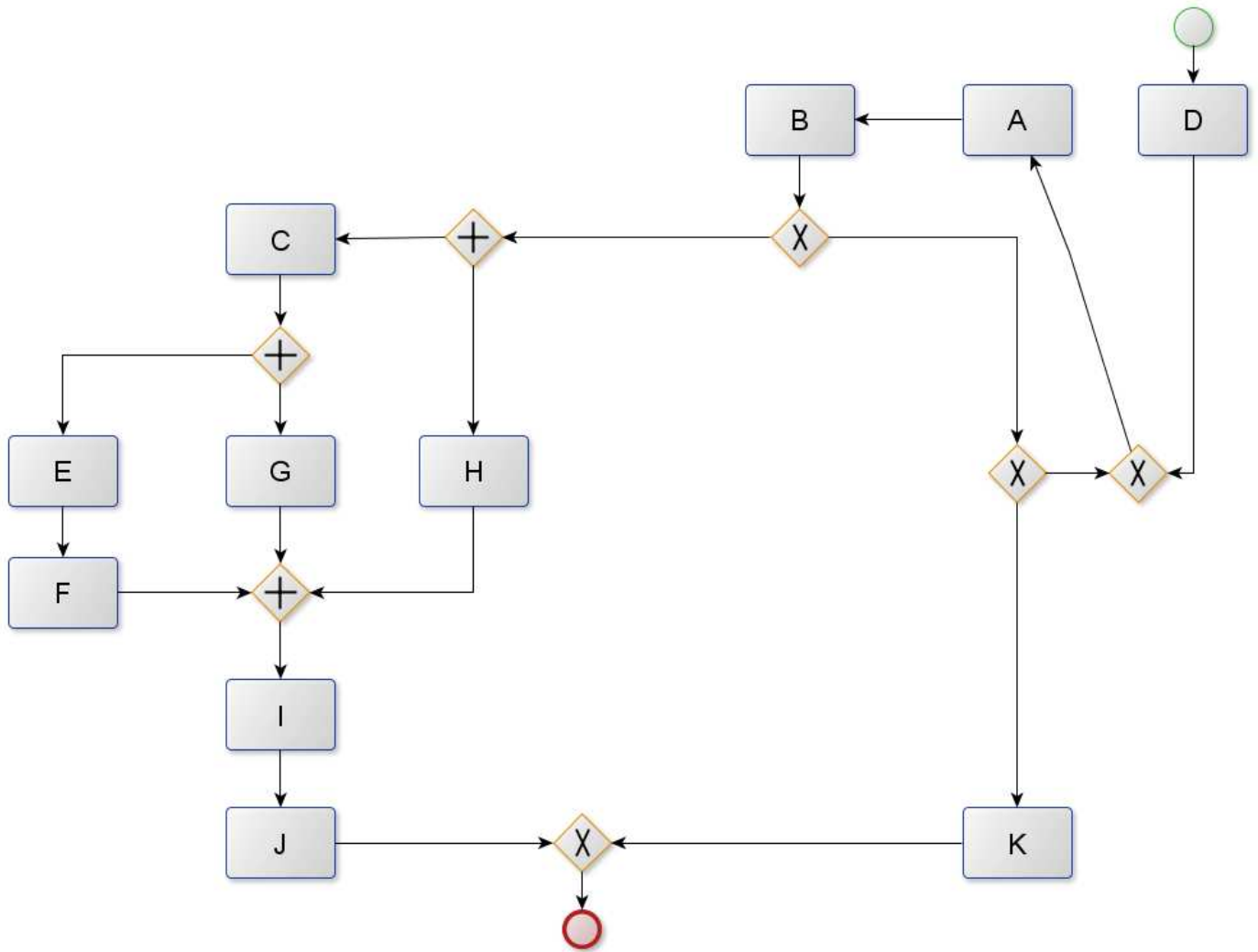
Q3. If C and E are executed for a case, is G always executed for the same case?

- Yes / No / I don't know

Q4. Can C and O be executed in the same case?

- Yes / No / I don't know

Model 7



Q0. Please rate the difficulty of the model on a 4-point scale:

- 1 – Very simple
- 2
- 3
- 4 - Very difficult

Q1. Can E, G and H all be executed in the same case?

- Yes / No / I don't know

Q2. Can I and K be executed in the same case?

- Yes / No / I don't know

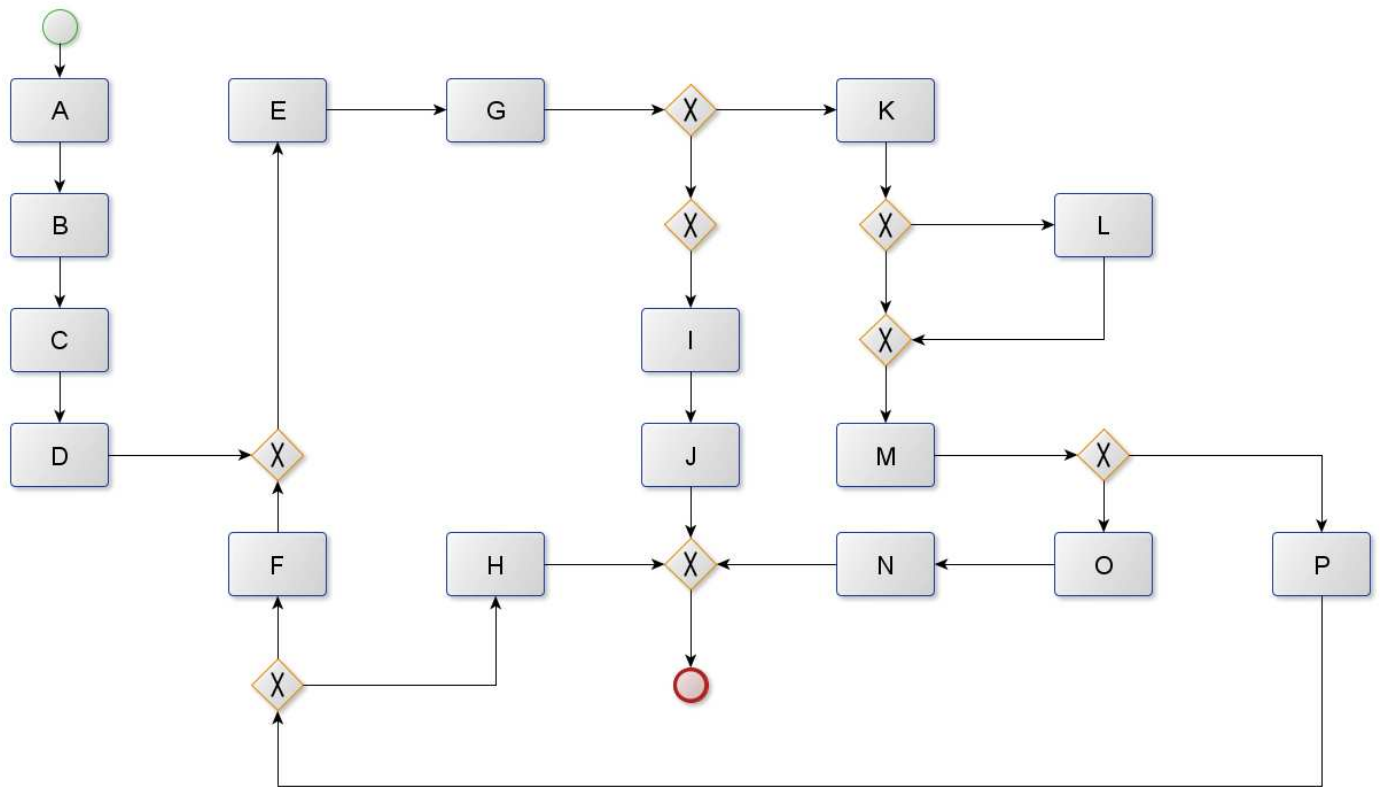
Q3. If B has been executed, can A be executed again?

- Yes / No / I don't know

Q4. Can H be executed twice?

- Yes / No / I don't know

Model 8



Q0. Please rate the difficulty of the model on a 4-point scale:

- 1 – Very simple
- 2
- 3
- 4 - Very difficult

Q1. Can F and H be executed in the same case?

- Yes / No / I don't know

Q2. Can K be executed after L has already been executed?

- Yes / No / I don't know

Q3. If M is executed for a case, can J be executed for the same case?

- Yes / No / I don't know

Q4. Do M and N have to be executed in the same case?

- Yes / No / I don't know