

Unit 10 - Week 8

Course outline

How does an NPTEL online course work?

Practice Assignment

Week 1

Week 2

Week 3

Week 4

Week 5

Week 6

Week 7

Week 8

Lecture 24.1: Model Validation and Policy design

Lecture 24.2: Sensitivity analysis and policy analysis

Lecture 25.1: Modeling Example

Lecture 25.2: System Archetypes

Lecture 26: Course Wrap-up

Download Videos

Weekly Feedback

Quiz : Assignment 08

Study Material for Week 8

Text Transcripts

Assignment 08

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

Due on 2020-03-25, 23:59 IST.

1) SD model _____ is mainly about testing if the model can replicate past behaviour/ historical patterns. 1 point

- Verification
 Validation

No, the answer is incorrect.
Score: 0

Accepted Answers:
Validation

2) SD model _____ includes structure-oriented behaviour tests. 1 point

- Verification
 Validation

No, the answer is incorrect.
Score: 0

Accepted Answers:
Validation

3) SD model _____ is to find out if we built the model right. 1 point

- Verification
 Validation

No, the answer is incorrect.
Score: 0

Accepted Answers:
Verification

4) SD model _____ is to find out if we built the right model. 1 point

- Verification
 Validation

No, the answer is incorrect.
Score: 0

Accepted Answers:
Validation

5) SD model _____ includes numerical sensitivity analysis and debugging 1 point

- Verification
 Validation

No, the answer is incorrect.
Score: 0

Accepted Answers:
Verification

6) "A fast-food company, to capture the geographically defined market, opens new fast-food outlets. The competitor will see this expansion as a threat and will respond in kind by opening their own outlets. This can continue until the cost to expand becomes prohibitive to all companies." .. Which archetype corresponds to this scenario? 1 point

- the 'limits to growth' archetype
 the 'shifting the burden' archetype
 the 'escalation' archetype
 the 'eroding goals' archetype

No, the answer is incorrect.
Score: 0

Accepted Answers:
the 'escalation' archetype

7) "A company makes and sells products of a certain quality. They change their quality goals based on customers' perception and competitors' quality." Which archetype corresponds to this scenario? 1 point

- the 'limits to growth' archetype
 the 'shifting the burden' archetype
 the 'escalation' archetype
 the 'eroding goals' archetype

No, the answer is incorrect.
Score: 0

Accepted Answers:
the 'eroding goals' archetype

8) The goal of sensitivity analysis is to find parameters with high leverage. 1 point

- True
 False

No, the answer is incorrect.
Score: 0

Accepted Answers:
True

9) A model that is not sensitive to small parameter changes is better than a model that is sensitive to small parameter changes 1 point

- True
 False

No, the answer is incorrect.
Score: 0

Accepted Answers:
False

10) Suppose you built a valid simulation model. Then, you ran the model for different values of some parameters, and you plotted the behaviours of the key stocks for each value of the parameter. 1 point

Answer questions Q10-Q13.

The model is numerically sensitive even if the final values of the stocks are the same.

- True
 False

No, the answer is incorrect.
Score: 0

Accepted Answers:
False

11) The model is numerically sensitive if there is significant difference in the trajectory of the curves. 1 point

- True
 False

No, the answer is incorrect.
Score: 0

Accepted Answers:
True

12) The model is not behaviour mode sensitive if the shape of the output curves of the stocks are the same. 1 point

- True
 False

No, the answer is incorrect.
Score: 0

Accepted Answers:
True

13) The model is behaviour mode sensitive if there is significant difference in the trajectory of the curves. 1 point

- True
 False

No, the answer is incorrect.
Score: 0

Accepted Answers:
False