

Unit 9 - Week 6: Formal system models

Course outline

How does an NPTEL online course work?

Week 0: Assignment on Prerequisites

Week 1: Introduction

Week 2: Engineering User-Centric Systems

Week 3: User-Centric Computing

Week 4: Computational user models (classical)

Week 5: M5-Computational user models (contemporary)

Week 6: Formal system models

● Lec 23: Introduction to formal models in UCD

● Lec 24: Formal modeling of user-computer dialogue

● Lec 25: Case studies on the use of models

○ Quiz : Assignment 6

○ Weekly feedback form for week 6

○ Solution: Assignment 6

Week 7: Empirical Research Methods

Week 8: User-Centric Design Evaluation

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Assignment 6

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

Due on 2020-03-11, 23:59 IST.

1) Depending on modelling language, we can have THREE categories of models. These are:

1 point

- Formal models
 Informal models
 Semi-informal models
 Semi-formal models

No, the answer is incorrect.
Score: 0

Accepted Answers:
Formal models
Informal models
Semi-formal models

2) UML class diagrams and DFD are the examples of

1 point

- Informal model
 Semi-formal model
 Formal model
 Hybrid model

No, the answer is incorrect.
Score: 0

Accepted Answers:
Semi-formal model

3) Which of the following notations are used to model concurrent behavior?

1 point

- Statechart
 Parallel STN
 Both
 None of the above

No, the answer is incorrect.
Score: 0

Accepted Answers:
Statechart

4) The following is/ are problem(s) with the hierarchical STNs.

1 point

(I) Hierarchical STNs are not very formal - many ambiguities are there.
 (II) Hierarchical STNs cannot be applied to dialog modeling.

- Only I is true
 Only II is true
 Both I and II are true
 Both I and II are false

No, the answer is incorrect.
Score: 0

Accepted Answers:
Only I is true

5) To support concurrency, 'Statechart' notation uses a specific super state which is called _____

1 point

- default superstate
 historical superstate
 AND superstate
 OR superstate

No, the answer is incorrect.
Score: 0

Accepted Answers:
AND superstate

6) In case of Fitt's Digraph model, which of the following information is/are required?

1 point

- Distance between keys
 Width of each key
 Digraph probabilities
 All of the above

No, the answer is incorrect.
Score: 0

Accepted Answers:
All of the above

7) Which of the following is (/are) example(s) of adaptive design?

1 point

(I) During typing, we can change size of the key(s).
 (II) Key positions are changed dynamically during typing.

- I
 II
 Both I and II
 Neither I nor II

No, the answer is incorrect.
Score: 0

Accepted Answers:
Both I and II

8) If we consider Metropolis Algorithm for non-adaptive automated design for virtual keyboard, average movement time for the layout represents

1 point

- molecules
 molecular system
 energy
 speed

No, the answer is incorrect.
Score: 0

Accepted Answers:
energy

9) If a super state contains only one active basic state whenever it is active, it is called ____ super state

No, the answer is incorrect.
Score: 0

Accepted Answers:
(Type: String) OR

1 point

10) In 'non-adaptive semi-automated layout generator', which of the following is not required in the UCC framework?

1 point

- Collector
 Input provider
 Renderer
 User state predictor

No, the answer is incorrect.
Score: 0

Accepted Answers:
Input provider