

Introduction to Agent-Based Modeling (Summer 2023)

8.6 Unit 8 Wrapup » Unit 8 Test

Instructions 1

Please select the best answer.

Question 2

The Game of Life has the ability to create _____ .

- A. real robots
 - B. self-reproducing automata
 - C. fully mobile agents with network connections
 - D. patterns of behavior that don't exist in ABM
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Question 3

One common feature between ABM and CA is:

- A. the timestep-based scheduler
 - B. mobile agents
 - C. experimental tools
 - D. a fixed set of binary rules
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Question 4

In many ways, the desire to build economic models that can handle modern complexities, at least partially, led to the development of one of the first ABM toolkits.

- A. Repast
 - B. MASON
 - C. Swarm
 - D. NetLogo
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Question 5

Because Genetic Algorithms use a population of solutions, it is possible to _____ good solutions to create better ones.

- A. modify
 - B. recombine
 - C. mutate
 - D. delete
-

Question 6

Body syntonic reasoning is employed in agent-based modeling in that:

- A. agents and humans can participate together
- B. agents can reason about their own bodies
- C. agents are similar to bodies
- D. stakeholders identify with agents to reason and understand their behavior

Question 7

The main difference between NetLogo and Logo is that NetLogo can handle _____.

- A. thousands of agents
 - B. one agent
 - C. graphical displays
 - D. modern computational structures
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Question 8

Object-oriented programming and agent-based model share similarities in that:

- A. OO was created to model complex systems phenomena
 - B. agents can be viewed as objects in the OO paradigm
 - C. they do not share similarities
 - D. agent-based modeling is a programming language
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Question 9

The Actor paradigm and ABM both place an emphasis on:

- A. local interactions
 - B. path dependence
 - C. participatory simulation
 - D. experimental design
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Question 10

Parallel computing requires the creation of special languages because:

- A. serial machines run slower
 - B. different processors behave differently
 - C. standard computing architectures assume that every element can access the full data of the program at all times
 - D. communication between processes takes a long time
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Question 11

_____ is the field of studying computational models of natural life.

- A. machine learning
- B. evolutionary computation
- C. system dynamics modeling
- D. artificial life