

# Introduction to Agent-Based Modeling (Summer 2023)

## 8.6 Unit 8 Wrapup » Unit 8 Test

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### Instructions 1

Please select the best answer.

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### 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
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### 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

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**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