

5.11 Challenges of Contemporary Agriculture

Name: _____ Class: _____ Date: _____

Total: 10 marks

Objective

Build the skills to answer exam questions on **challenges of contemporary agriculture** 当代农业的挑战.

You must be able to:

- define a **food desert** 食物荒漠
- summarise the **GMO** 转基因 debate
- explain the **local-food** 本地食物 and organic movements
- explain **urban farming** 城市农业

1 Worked examples

Study these first. Each one shows the method for a task used later.

■ Food deserts

A **food desert** is an area, often poor or urban, with little access to affordable fresh, healthy food —only convenience stores may be nearby.

■ GMO debate

Genetically modified organisms can raise yields and resist pests, but critics raise concerns over health, environment, and corporate control of seeds.

■ Local, organic, urban

Local-food and **organic** movements favour food grown nearby without synthetic chemicals; **urban farming** grows food in cities on rooftops, lots, and gardens.

2 Practice

2.1 Define a food desert.

[2]

2.2 State one argument for and one against GMOs. [2]

2.3 City residents grow vegetables on rooftops and vacant lots.

(a) Name this practice. [1]

(b) State one benefit it offers a food desert. [1]

3 Exam-style questions

3.1 A neighbourhood with only convenience stores and no fresh-food shops is a [1]

- **A** food desert
 - **B** commodity chain
 - **C** greenbelt
 - **D** relict region
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3.2 A common argument in favour of GMO crops is that they can [1]

- **A** always lower yields
 - **B** resist pests and raise yields
 - **C** remove the need for any farming
 - **D** end all pollution
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3.3 A community starts a local-food, organic cooperative.

(a) State one benefit of buying local, organic food. [1]

(b) State one challenge of the movement. [1]

4 Go further

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- work through the **5.11 Challenges of Contemporary Agriculture** lesson on the **Learn** page;
 - read the **Agriculture and Rural Land-Use** section of the AP Human Geography handout on the **Know** page.

Solutions

2.1 an area with poor access to affordable fresh, healthy food, often relying on convenience stores.

2.2 for: higher yields / pest resistance / less chemical need; against: health, environmental, or corporate-control concerns.

2.3 (a) urban farming/agriculture. (b) local access to fresh, affordable produce.

3.1 A. poor fresh-food access defines a food desert.

3.2 B. GMOs can resist pests and raise yields.

3.3 (a) fresher food, fewer chemicals, lower transport emissions, support for local farmers. (b) higher cost, smaller scale, or limited availability.