

9.1 Advances in Technology and Exchange After 1900

Name: _____ Class: _____ Date: _____

Total: 13 marks

KEY WORDS birth control 节育 • fertility 生育 • green revolution 绿色革命 • antibiotics 抗生素
• vaccines 疫苗

Objective

Build the skills to explain **20th-century technology** 技术进步.

You must be able to:

- name the communication and transportation technologies the CED lists
- state what they did to distance
- state the effects of birth control the CED gives
- state what the Green Revolution spread

1 Worked examples

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

■ The technologies

Radio communication, cellular communication and the internet, as well as **air travel and shipping containers**. A shipping container beside the internet is a reminder that logistics is a communication technology too.

■ Distance

They **reduced the problem of geographic distance**. Not abolished — reduced, and as a problem rather than as a fact.

■ Birth control

More effective forms of birth control gave women greater control over fertility, transformed reproductive practices, and contributed to declining rates of fertility in much of the world. Three effects, from the individual to the demographic.

■ The Green Revolution

It and commercial agriculture **increased productivity and sustained the earth's growing population as it spread chemically and genetically modified forms of agriculture**. Medical innovations including **vaccines and antibiotics** increased the ability of humans to survive and live longer.

2 Practice

2.1 Name four of the technologies the CED lists. [2]

2.2 State the three effects of more effective birth control. [3]

2.3 The Green Revolution had a stated effect.

(a) State it. [2]

(b) State what “reduced the problem of geographic distance” claims. [1]

3 Exam-style questions

3.1 The CED says the new technologies [1]

- **A** abolished distance
- **B** reduced the problem of geographic distance
- **C** increased distance
- **D** had no effect on distance

3.2 Medical innovations the CED names include [1]

- **A** vaccines and antibiotics
- **B** shipping containers

- **C** radio
 - **D** nuclear power
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3.3 A shipping container is listed beside the internet.

(a) State what the pairing suggests. [1]

(b) Explain why moving goods counts as reducing distance. [2]

Solutions

2.1 any four of: radio communication; cellular communication; the internet; air travel; shipping containers.

2.2 greater control over fertility; transformed reproductive practices; declining rates of fertility in much of the world.

2.3 (a) it increased productivity and sustained the earth's growing population as it spread chemically and genetically modified agriculture. (b) distance became less of an obstacle without ceasing to exist.

3.1 B. reduced, not abolished.

3.2 A. vaccines and antibiotics.

3.3 (a) that logistics is a form of communication technology. (b) what matters is how long and how expensive it is to reach another place, which containerised shipping changed as much as any signal did.