

1.3 The Power of Geographic Data

Name: _____ Class: _____ Date: _____ **Total: 9 marks**

KEY WORDS geospatial data 地理空间数据 • privacy 隐私 • map 地图 • region 区域
• distance decay 距离衰减

Objective

Build the skills to answer exam questions on how **geospatial data** 地理空间数据 is used in decisions.

You must be able to:

- explain how individuals use geospatial data (navigation, choosing services)
- explain how businesses use it (siting stores, targeting markets)
- explain how governments use it (planning, policy, emergency response)
- recognise concerns such as **privacy** 隐私

1 Worked examples

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

■ Individuals

People use geospatial data to navigate, find the nearest service, or check travel time — everyday decisions guided by location data.

■ Businesses

A firm uses geospatial data to decide *where* to open a store — mapping customers, competitors, and transport to pick a profitable site.

■ Governments

Governments use it to plan land use, route emergency services, target investment, and set policy — decisions that shape whole regions.

2 Practice

2.1 Give one way an individual uses geospatial data in daily life. [1]

2.2 Explain how a business could use geospatial data to choose a store location. [2]

2.3 A city government collects location data from many sources.

(a) State one way the government could use this data. [1]

(b) State one concern raised by collecting location data on people. [1]

3 Exam-style questions

3.1 A retail chain maps household incomes and traffic before opening a shop. This is [1]

- **A** environmental determinism
- **B** a use of geospatial data for a business decision
- **C** a map projection
- **D** a formal region

3.2 A common concern about the spread of geospatial data about individuals is [1]

- **A** distortion of area
- **B** loss of privacy
- **C** map scale
- **D** distance decay

3.3 After a flood, an emergency team uses live geospatial data.

(a) State one decision the data helps them make. [1]

(b) Explain why up-to-date data matters more than an old map here. [1]

Solutions

2.1 navigation / finding the nearest shop, hospital, restaurant, etc..

2.2 map where its customers and competitors are; pick a site near demand and transport, away from rivals.

2.3 (a) plan services/transport, respond to emergencies, target investment. (b) privacy / surveillance / misuse of personal location data.

3.1 B. it uses geospatial data to guide a business siting decision.

3.2 B. collecting personal location data raises privacy concerns.

3.3 (a) where to send help / which routes are open / who to evacuate. (b) conditions change fast in a disaster, so current data guides safe, effective response.