

1.2 Geographic Data

Name: _____ Class: _____ Date: _____ **Total: 10 marks**

KEY WORDS census 人口普查 • geographic data 地理数据 • gis 地理信息系统 • qualitative 定性
• quantitative 定量

Objective

Build the skills to answer exam questions on **geographic data** 地理数据 and how it is gathered.

You must be able to:

- distinguish **quantitative** 定量 from **qualitative** 定性 geographic data
- identify sources: **GIS** 地理信息系统, **GPS** 全球定位系统, **remote sensing** 遥感, **census** 人口普查, fieldwork
- explain what each source is good for
- recognise that all geographic data is tied to a **location** 位置

1 Worked examples

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

■ Quantitative vs qualitative

Quantitative data are numbers (a census count, rainfall in mm). **Qualitative** data are descriptions (an interview, a field sketch, a photograph).

■ Key data sources

GPS gives precise location; **remote sensing**/satellites image large areas; **GIS** layers and analyses spatial data; a **census** counts a population; **fieldwork** gathers local first-hand data.

■ All data is spatial

Geographic data always answers *where* as well as *what* — every observation is tied to a location, which is what lets it be mapped and analysed.

2 Practice

2.1 Define quantitative geographic data and give one example. [2]

2.2 State what remote sensing is and one thing it is useful for. [2]

2.3 A government wants to plan services for a growing city.

(a) Name the data source that counts the whole population. [1]

(b) Name the system used to layer and analyse that data spatially. [1]

3 Exam-style questions

3.1 Interviews with residents about how safe they feel in a park are an example of [1]

- **A** quantitative data
- **B** qualitative data
- **C** remote-sensing data
- **D** census data

3.2 A phone that records the exact coordinates of a photo is using [1]

- **A** GIS
- **B** GPS
- **C** a census
- **D** a cartogram

3.3 Modern geographers combine many data layers.

(a) State one advantage of GIS over a single paper map.

[1]

(b) State one limitation of relying only on satellite data.

[1]

Solutions

2.1 numerical data; e.g. a census population count or rainfall total.

2.2 gathering data from a distance, e.g. by satellite/aircraft; useful for imaging large or hard-to-reach areas, land-cover change.

2.3 (a) the census. (b) GIS — a geographic information system.

3.1 B. descriptions/opinions from interviews are qualitative data.

3.2 B. GPS supplies precise location coordinates.

3.3 (a) it can overlay/analyse many variables and update quickly. (b) it may miss local, on-the-ground detail or people's views.