

4.1 The Internet

Name: _____ Class: _____ Date: _____

Total: 9 marks

KEY WORDS internet 互联网 • packets 数据包 • world wide web 万维网 • protocols 协议

Objective

Build the skills to answer exam questions on **the Internet**.

You must be able to:

- explain how the **Internet** 互联网 is a network of networks using shared **protocols** 协议
- describe how data is divided into **packets** 数据包
- explain the role of an **IP address** IP 地址
- distinguish the **Internet** from the **World Wide Web** 万维网

1 Worked examples

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

■ The Internet

A **network of interconnected networks** that communicate using shared **protocols** (agreed sets of rules).

■ Packets and IP addresses

Data is split into **packets** that travel **independently** and are **reassembled** at the destination. An **IP address** identifies each device on the network.

■ Internet vs Web

The **World Wide Web** is a **service** (of web pages) that runs **on** the Internet — they are not the same thing. **Redundant** paths help data reach its destination reliably.

2 Practice

2.1 Define the Internet.

[1]

2.2 State what a packet is. [1]

2.3 State the difference between the Internet and the World Wide Web. [2]

3 Exam-style questions

3.1 An IP address is used to [1]

- | | |
|---|---|
| A | B |
| C | D |
- A** compress data
 - B** identify a device on the network
 - C** sort packets
 - D** encrypt a file

3.2 Data sent over the Internet is divided into [1]

- | | |
|---|---|
| A | B |
| C | D |
- A** bytes only
 - B** packets
 - C** pixels
 - D** strings

3.3 A file is sent across the Internet.

(a) State how it travels. [1]

(b) State what a protocol is. [1]

(c) State one benefit of redundant network paths. [1]