

1.1 Collaboration

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

KEY WORDS users 用户 • pair programming 结对编程 • bias 偏见 • collaboration 协作
• feedback 反馈

Objective

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

You must be able to:

- explain how **collaboration** 协作 and diverse perspectives improve a solution and reduce **bias** 偏见
- apply **pair programming** 结对编程 (a driver and a navigator)
- describe giving and receiving constructive **feedback** 反馈
- explain why consulting **users** 用户 helps a program meet real needs

1 Worked examples

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

■ Why collaborate

A team with **diverse perspectives** spots more problems, produces better solutions, and reduces **bias** that one person might miss.

■ Pair programming

Two people share one workstation: the **driver** types the code, and the **navigator** reviews it and suggests direction. They swap roles regularly.

■ Feedback and users

Constructive feedback during development catches issues early; consulting **users and stakeholders** keeps the program aimed at real needs.

2 Practice

2.1 State one benefit of collaboration when developing a program. [1]

2.2 Describe the two roles in pair programming. [2]

2.3 State why consulting users helps a program. [1]

3 Exam-style questions

3.1 In pair programming, the person who types the code is the [1]

- **A** navigator
- **B** driver
- **C** tester
- **D** manager

3.2 Diverse perspectives in a team help to reduce [1]

- **A** speed
- **B** bias
- **C** cost
- **D** memory use

3.3 A team builds an app without asking any users for input.

(a) State one risk of doing this. [1]

(b) State one collaboration practice that would help. [1]

(c) State one benefit of that practice. [1]

Solutions

2.1 any one of: better solutions, fewer errors, reduced bias, more ideas.

2.2 the driver types the code; the navigator reviews it and guides the direction.

2.3 it keeps the program aimed at users' real needs.

3.1 B.

3.2 B.

3.3 (a) the app may not meet users' real needs. (b) consult users, or use pair programming (any one). (c) fewer errors, or a program that better fits its purpose.