

1.8 Documentation with Comments

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

KEY WORDS comments 注释 • postcondition 后置条件 • precondition 前置条件
• compiler 编译器 • program 程序

Objective

Build the skills to answer exam questions on **documentation with comments**.

You must be able to:

- write single-line **comments** 注释 (//) and block comments (/* */)
- understand that comments are ignored by the compiler
- state a **precondition** 前置条件 and a **postcondition** 后置条件
- use comments to explain intent

1 Worked examples

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

■ Comments

// this is a single-line comment and /* this is a block comment */.
Comments are **ignored by the compiler** but help humans read the code.

■ Pre- and postconditions

- **Precondition** — what must be true **before** the code runs.
- **Postcondition** — what will be true **after** it runs.

Good comments explain **intent**, not obvious code.

2 Practice

2.1 State the two ways to write comments in Java. [2]

2.2 State whether comments affect how the program runs. [1]

2.3 Define a precondition. [1]

3 Exam-style questions

3.1 A single-line comment in Java starts with [1]

- **A** /*
- **B** //
- **C** #
- **D** <!--

3.2 Comments are [1]

- **A** run by the compiler
- **B** ignored by the compiler
- **C** errors
- **D** program output

3.3 A method assumes its input number is positive.

- (a) Name this kind of assumption. [1]
- (b) Name what is stated to be true after the method finishes. [1]
- (c) State one good purpose of a comment. [1]

Solutions

2.1 `//` for a single line and `/* */` for a block.

2.2 no — they are ignored by the compiler.

2.3 something that must be true before the code runs.

3.1 B.

3.2 B.

3.3 (a) a precondition. (b) a postcondition. (c) to explain the intent / aid readability.