

2.3 Introduction to Memory

Name: _____ Class: _____ Date: _____ **Total: 12 marks**

KEY WORDS working memory 工作记忆 • explicit 外显 • short-term 短时
• short-term memory 短时记忆 • implicit 内隐

Objective

Build the skills to answer exam questions on the **three-stage model** 三阶段模型 of memory.

You must be able to:

- name the three stages and state what each does
- distinguish **sensory** 感觉, **short-term** 短时 and **long-term** 长时 memory by capacity and duration
- explain what **working memory** 工作记忆 adds to the model
- distinguish **explicit** 外显 from **implicit** 内隐 memory

1 Worked examples

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

■ Three processes

Encoding gets information in, **storage** holds it, **retrieval** gets it back out. A failure at any one of the three looks like forgetting, and telling them apart is most of the work.

■ Three stores

Sensory memory holds a large amount for under a second. **Short-term memory** holds about seven items for about twenty seconds without rehearsal. **Long-term memory** has no known practical limit and can last a lifetime.

■ Working memory

Working memory is short-term memory treated as an active workspace: it holds information **and manipulates it**, with separate handling of verbal and visual material under a central control.

■ Explicit and implicit

Explicit memory is consciously recalled — facts and events. **Implicit** memory shows up in performance without conscious recall — skills, conditioned responses.

2 Practice

2.1 Name the three memory processes and state what each does. [3]

2.2 State the approximate capacity and duration of short-term memory. [2]

2.3 A person rides a bicycle after ten years without being able to describe how.

(a) Name the type of memory involved. [1]

(b) State how it differs from explicit memory. [1]

3 Exam-style questions

3.1 Working memory differs from short-term memory mainly because it [1]

- **A** lasts longer
- **B** manipulates information as well as holding it
- **C** has unlimited capacity
- **D** is unconscious

3.2 Sensory memory is best described as [1]

- **A** small capacity, long duration
- **B** large capacity, very brief duration
- **C** unlimited capacity, unlimited duration
- **D** conscious and effortful

3.3 A student can recognise a correct answer but cannot produce it unaided.

(a) State which process has failed. [1]

(b) Explain how the test format changes the difficulty. [2]

Solutions

2.1 encoding — getting information in; storage — holding it; retrieval — getting it back out.

2.2 about seven items; about twenty seconds without rehearsal.

2.3 (a) implicit (procedural) memory. (b) it appears in performance without conscious recall, whereas explicit memory is consciously retrieved.

3.1 B. working memory is an active workspace, not only a store.

3.2 B. sensory memory holds a great deal for under a second.

3.3 (a) retrieval. (b) recognition supplies the cue directly, while recall requires generating it, which needs a stronger retrieval path.