



PART 2

Read the text below and answer questions 14–26.

MEMORY SYSTEMS: THE COMPLEXITY OF REMEMBERING

A

For centuries, memory was often described as though it were a single container: experiences were “put in”, retained for a period, and then either kept or lost. This picture was attractive because it matched everyday intuition—people speak of a “good memory” as if it were one capacity that can be stronger or weaker. Yet research in psychology and neuroscience has steadily undermined this idea. The term memory is now treated as an umbrella label for several systems that differ in purpose, capacity, and underlying mechanisms. A person may struggle to hold a short list of digits in mind yet retain skills learned years earlier; another may recall general facts fluently while failing to remember what happened yesterday. These dissociations are not treated as anomalies but as evidence that remembering is supported by multiple processes that can operate independently and can be selectively disrupted by illness, injury, or context.

B

Among the most influential distinctions is the separation between working memory and long-term memory, but working memory is not merely “short-term storage”. It is a limited-capacity mental workspace that keeps information available while the mind performs other operations such as comprehension, reasoning, or planning. Baddeley’s model proposes several interacting components, including a Central Executive that allocates attention and controls priorities, and a Phonological Loop that briefly maintains speech-based material through rehearsal. When tasks demand more processing than this system can sustain, performance deteriorates sharply. In such situations, what fails is often not knowledge itself but the ability to keep relevant material active while resisting distraction. The concept of cognitive load captures this pressure: as competing demands accumulate, the workspace becomes crowded, and even well-learned procedures can break down because attention is diverted or rehearsing becomes impossible.

C

Long-term memory, in turn, is commonly divided into declarative (explicit) and non-declarative (implicit) forms. Declarative memory refers to information that can be consciously brought to mind, reported, and described. Within it, episodic memory concerns personally experienced events and is often linked to a sense of “mental time travel”: remembering is accompanied by the feeling of returning to a particular moment with its specific context. Semantic memory, by contrast, involves crystallised knowledge—



word meanings, concepts, and facts that can be retrieved without re-entering the original learning episode. Importantly, these forms interact. With repeated use, elements of an episode can lose their contextual detail and become integrated into semantic knowledge, a transformation that helps explain why people may confidently state a fact while forgetting when or where they first learned it. This shift is not simply forgetting; it reflects the mind's tendency to organise information in forms that are efficient for communication and problem-solving.

D

Non-declarative memory is expressed through performance rather than deliberate recollection, and it includes several mechanisms that allow learning without conscious awareness. Procedural memory is the most familiar example: motor skills such as typing, playing a musical scale, or navigating a familiar route can become increasingly automated with practice. As skill is refined, actions require less conscious supervision and may feel as though the body “knows” what to do. This kind of learning relies heavily on the basal ganglia, a set of subcortical structures involved in selecting and shaping movements, whereas the hippocampus is more strongly linked to forming new episodic memories. The contrast explains why some individuals can acquire new routines despite being unable to describe the learning episodes that produced them. Another implicit mechanism is priming, in which prior exposure to a stimulus subtly increases the ease of recognising or responding to it later, even when the person cannot consciously recall the first encounter.

E

Neuroscience also clarifies why emotion can amplify remembering, sometimes in ways that feel disproportionate to the ordinary importance of an event. Emotional arousal activates the amygdala, which can modulate consolidation processes and increase the likelihood that certain aspects of an experience will be retained. This is often invoked to explain “flashbulb memories”, in which people report exceptionally vivid recollections of where they were and what they felt when hearing dramatic news. However, vividness is not identical to accuracy; emotion may strengthen central details while leaving peripheral information distorted or incomplete. Stress further complicates this picture. When the body releases cortisol during prolonged or intense stress, the hippocampus—critical for forming new episodic memories—may function less effectively. As a result, people can recall the emotional tone of an experience yet struggle to organise it into a coherent timeline, and they may later confuse what was directly witnessed with what was inferred or suggested afterwards.

F

Understanding memory as a set of systems has practical value because it allows



interventions to target specific mechanisms rather than treating “memory” as a single trait. In education, instructional design can reduce unnecessary cognitive load in working memory by presenting information clearly and sequencing tasks so learners are not forced to juggle too many elements at once. For durable learning, research supports practices that strengthen retrieval in long-term memory, including spaced repetition, in which review sessions are distributed over time rather than massed together. In clinical and rehabilitation settings, the same multi-system view can guide compensation strategies. When episodic memory is impaired, therapists may build routines that rely on preserved procedural learning, using repetition and environmental cues to establish habits that support daily functioning. Such approaches do not restore every form of remembering, but they demonstrate that effective support depends on recognising which system is weakened and which remains available to be trained.

Questions 14–19

Which paragraph contains the following information?

14 examples of how research findings can inform both classroom practice and clinical rehabilitation.

15 an explanation that repeated use can cause event-based memories to become more like general knowledge.

16 a discussion of how emotional arousal can increase vivid recall without guaranteeing accuracy.

17 reference to a model that includes an attention-controlling component and a speech-based maintenance system.

18 information showing that some learning depends more on subcortical structures than on the hippocampus.

19 a description of memory as an umbrella term supported by distinct systems that can be independently impaired.

Questions 20–22

Look at the following descriptions and the list below. Choose the correct letter, **A**, **B**, or **C**.

20 acquired motor autonomy that improves through practice and can operate with minimal conscious control.

21 a capacity-limited workspace that must coordinate attention while maintaining material for ongoing thinking.



22 recollection that involves subjective re-experiencing of a specific event in its original context.

List of Memory Types

A Working memory

B Episodic memory

C Procedural memory

Questions 23–26

Complete the sentences below. Choose **ONE WORD ONLY** from the text for each answer.

23 As competing demands build up, the pressure on working memory is described as cognitive

24 Procedural skills depend strongly on subcortical structures known as the basal

25 The brain structure that can enhance consolidation during emotional arousal is the

26 For durable learning, reviews separated over time are an example of repetition.

Answer Key

14. F

15. C

16. E

17. B

18. D

19. A

20. C

21. A

22. B

23. load

24. ganglia



25. amygdala

26. spaced