#### Chapter 07 Memory

#### **Multiple Choice Questions**

1. (p. 213) The process by which we encode, store, and retrieve information is known as \_\_\_\_\_.

A. perception

**<u>B.</u>** memory

C. rehearsal

D. cognition

APA Goal Outcome: 1.2 Bloom's Taxonomy: Remember Difficulty: Easy Learning Outcome: 20-1

2. (p. 213) Which of the following sequences best reflects the order in which memory processes occur, from first to last?

<u>A.</u> Encoding storage retrieval

B. Storage retrieval encoding

C. Encoding retrieval storage

D. Storage encoding retrieval

APA Goal Outcome: 1.2 Bloom's Taxonomy: Remember Difficulty: Easy Learning Outcome: 20-1 3. (p. 213) Material in memory storage has to be located and brought into awareness to be useful. This process is known as \_\_\_\_\_.
A. potentiation
B. retrieval
C. encoding
D. storage

APA Goal Outcome: 1.2 Bloom's Taxonomy: Remember Difficulty: Easy Learning Outcome: 20-1

4. (*p. 213*) When answering such questions as "Who was your date to the Junior Prom?" or "Which costume did you wear last Halloween?" you are relying most explicitly on the memory process of:

A. encoding.

B. potentiation.

<u>**C.**</u> retrieval.

D. storage.

APA Goal Outcome: 1.2, 4.4 Bloom's Taxonomy: Apply Difficulty: Easy Learning Outcome: 20-1

5. (p. 214) Which of the following sequences best reflects the order of stages in the three-stage model of memory?

A. Sensory memory short-term memory long-term memory

B. Short-term memory sensory memory long-term memory

C. Short-term memory working memory long-term memory

D. Working memory short-term memory long-term memory

APA Goal Outcome: 1.2 Bloom's Taxonomy: Remember Difficulty: Medium Learning Outcome: 20-2 6. (p. 214) \_\_\_\_\_ memory refers to the initial, momentary storage of information that lasts only an instant.

A. Working

B. Long-term

<u>**C.**</u> Sensory

D. Short-term

APA Goal Outcome: 1.2 Bloom's Taxonomy: Remember Difficulty: Easy Learning Outcome: 20-2

7. (p. 214) Which of the following is true of sensory memory?

A. The precision of sensory memory is low due to its brief duration.

B. Sensory memory is the memory store in which information first has meaning.

C. Sensory memory permits us to keep information in an active state briefly so that we can do something with the information.

**D**. Sensory memory can store an almost exact replica of each stimulus to which it is exposed.

APA Goal Outcome: 1.2 Bloom's Taxonomy: Remember Difficulty: Medium Learning Outcome: 20-2

8. (p. 215) The study of sensory memory is associated with:

A. Elizabeth Loftus.

B. George Miller.

<u>**C.**</u> George Sperling.

D. Hermann Ebbinghaus.

APA Goal Outcome: 1.2 Bloom's Taxonomy: Remember Difficulty: Easy Learning Outcome: 20-2 9. (p. 215) In the late 1950s and early 1960s, psychologist George Sperling conducted key studies of:
<u>A.</u> sensory memory.
B. short-term memory.
C. semantic networks.
D. long-term memory.

APA Goal Outcome: 1.2 Bloom's Taxonomy: Remember Difficulty: Easy Learning Outcome: 20-2

10. (p. 215) A research participant is required to report as much of a poem as he can remember immediately after having read the poem once. We would expect the greatest number of recall errors in lines:

A. at the beginning of the poem.

**<u>B.</u>** in the middle of the poem.

C. at the end of the poem.

D. anywhere in the poem.

APA Goal Outcome: 1.2 Bloom's Taxonomy: Apply Difficulty: Medium Learning Outcome: 20-2

11. (p. 216) Which of the following expressions best reflects the capacity of short-term memory?
A. One or two items
B. Unlimited

<u>C.</u> About seven +/- two chunks

D. About a dozen chunks

APA Goal Outcome: 1.2 Bloom's Taxonomy: Remember Difficulty: Easy Learning Outcome: 20-2 12. (p. 216) Tommy is repeating a series of digits in the order in which he heard an experimenter read them. The experimenter is testing the capacity of Tommy's \_\_\_\_\_ memory. Tommy should be able to repeat about \_\_\_\_\_ digits correctly.

A. short-term; 4 <u>B.</u> short-term; 7 C. sensory; 4 D. sensory; 7

APA Goal Outcome: 1.2, 4.4 Bloom's Taxonomy: Apply Difficulty: Medium Learning Outcome: 20-2

13. (p. 216) Grouping pieces of information together to expand the effective capacity of short-term memory is termed \_\_\_\_\_.

<u>A.</u> chunking

B. clumping

C. consolidating

D. compacting

APA Goal Outcome: 1.2 Bloom's Taxonomy: Remember Difficulty: Easy Learning Outcome: 20-2

14. (*p*. 217) When you tell an acquaintance your telephone number, you do not recite the digits one by one at a constant rate, as in "3, 3, 7, 2, 3, 4, 8, 3, 9, 2." Rather, you might say, "3, 3, 7 . . . 2, 3, 4 . . . 83, 92." This exemplifies \_\_\_\_\_, a strategy to enhance \_\_\_\_\_ memory. A. consolidation; sensory

B. consolidation; short-term

C. chunking; sensory

C. CHUIIKIIIg, Selisof y

**D.** chunking; short-term

APA Goal Outcome: 1.2, 4.4 Bloom's Taxonomy: Apply Difficulty: Medium Learning Outcome: 20-2 15. (p. 217) We look up a number in the phone book, push the book away, and then begin to dial the number. Why do we discourage an interruption during this process?

A. Information lasts only 15-25 seconds in short-term memory.

- B. Information lasts only 5-6 seconds in short-term memory.
- C. Information can only last a minute or so in short-term memory.
- D. Short-term memory can only hold one or two chunks of information.

APA Goal Outcome: 1.2, 4.4 Bloom's Taxonomy: Apply Difficulty: Difficult Learning Outcome: 20-2

16. (p. 217) Rehearsal refers to the:

A. inability to recall information that one realizes one knows.

B. grouping of information that can be stored in short-term memory.

**<u>C.</u>** repetition of information that has entered short-term memory.

D. memory task in which individuals are presented with a stimulus and asked whether they have been exposed to it in the past.

APA Goal Outcome: 1.2, 4.4 Bloom's Taxonomy: Apply Difficulty: Difficult Learning Outcome: 20-2

17. (p. 217) Rehearsal serves to:

A. refresh sensory memory.

B. keep information in sensory memory.

<u>**C.</u>** transfer information to long-term memory.</u>

D. retrieve specific information exclusively.

APA Goal Outcome: 1.2 Bloom's Taxonomy: Remember Difficulty: Medium Learning Outcome: 20-2 18. (p. 217) The conscious repetition of information to ensure its survival in short-term memory is termed \_\_\_\_\_ rehearsal.
A. primary
B. elaborative
C. rote
D. maintenance

APA Goal Outcome: 1.2 Bloom's Taxonomy: Remember Difficulty: Easy Learning Outcome: 20-2

19. (p. 218) The concept of working memory represents a contemporary conceptualization of \_\_\_\_\_ memory.

A. sensory **<u>B.</u>** short-term C. long-term

D. declarative

APA Goal Outcome: 1.2 Bloom's Taxonomy: Remember Difficulty: Easy Learning Outcome: 20-2

20. (p. 218) \_\_\_\_\_ memory is defined as a set of active, temporary memory stores that actively manipulate and rehearse information.

A. Declarative

B. Semantic

C. Long-term

D. Working

APA Goal Outcome: 1.2 Bloom's Taxonomy: Remember Difficulty: Easy Learning Outcome: 20-2

## 21. (p. 218) "She did WHAT??" your roommate exclaims as you relate an anecdote about a mutual friend. Your roommate is processing your story in \_\_\_\_\_ memory.

<u>A.</u> working

- B. sensory
- C. semantic
- D. long-term

APA Goal Outcome: 1.2, 4.4 Bloom's Taxonomy: Apply Difficulty: Medium Learning Outcome: 20-2

22. (p. 218) On your computer desktop, you can see all sorts of different files, each immediately accessible. Because you are actively working on them, and because you can open them whenever you want, these files are in fact very similar to the kind of information held in:

A. long-term memory.

**<u>B.</u>** working memory.

C. sensory memory.

D. procedural memory.

APA Goal Outcome: 1.2 Bloom's Taxonomy: Apply Difficulty: Medium Learning Outcome: 20-2

23. (p. 218-219) As you work on a complex multiplication problem in your head, the numbers you are manipulating are in your \_\_\_\_\_ memory, and the multiplication tables you are drawing on are in \_\_\_\_\_ memory.

<u>A.</u> working; long-term

B. working; sensory C. long-term; working

D concorr working

D. sensory; working

APA Goal Outcome: 1.2, 4.4 Bloom's Taxonomy: Apply Difficulty: Medium Learning Outcome: 20-2 24. (p. 218) Which of the following statements is true of working memory? A. Sensory memory is referred to as working memory.

B. Working memory avoids the use of cognitive resources of information.

C. Working memory stores information on a relatively permanent basis, although it may be difficult to retrieve.

**D.** Working memory permits us to keep information in an active state briefly so that we can do something with the information.

APA Goal Outcome: 1.2 Bloom's Taxonomy: Remember Difficulty: Medium Learning Outcome: 20-2

25. (p. 218) Which of the following accurately describes the processing of information in working memory?

A. Working memory is the initial, momentary storage of information, lasting only an instant.

**<u>B.</u>** Working memory uses cognitive resources during its operation which makes us less aware of our surroundings.

C. Stress can increase the effectiveness of working memory by reducing its capacity.

D. Working memory is a set of permanent memory stores that actively manipulate and rehearse information.

APA Goal Outcome: 1.2 Bloom's Taxonomy: Remember Difficulty: Medium Learning Outcome: 20-2

26. (p. 218) Which of the following best describes the effect of stress on working memory capacity?

A. Stress has no effect on the capacity of working memory.

B. Stress increases the capacity of working memory only marginally.

C. Stress increases the capacity of working memory dramatically.

**D.** Stress can reduce the effectiveness of working memory by reducing its capacity.

APA Goal Outcome: 1.2, 4.4, 9.2 Bloom's Taxonomy: Remember Difficulty: Medium Learning Outcome: 20-2

27. (p. 219) The distinction between long- and short-term memory:

A. is somewhat artificial.

B. has failed to gain empirical support in memory research.

**<u>C.</u>** is supported by the effects of certain kinds of brain damage.

D. is supported by the distinction between declarative memory and procedural memory.

APA Goal Outcome: 1.2 Bloom's Taxonomy: Understand Difficulty: Medium Learning Outcome: 20-2

28. (p. 219) Our ability to recall an item from a list depends on where in the list the item occurs. This is the \_\_\_\_\_ effect.

<u>A.</u> serial position B. list memory C. cereal position D. item order

APA Goal Outcome: 1.2 Bloom's Taxonomy: Remember Difficulty: Easy Learning Outcome: 20-2

29. (*p.* 219) The primacy effect refers to the fact that:

A. the most important items in a list are remembered better than the less important items.

**<u>B.</u>** items presented early in a list are remembered better than items in the middle of the list.

C. items presented late in a list are remembered better than items presented earlier.

D. those items in a list which have the greatest emotional impact are those with the greatest likelihood of recall.

APA Goal Outcome: 1.2 Bloom's Taxonomy: Remember Difficulty: Easy Learning Outcome: 20-2 30. (p. 219) "Cat food, cola, toothpaste." Your roommate begins reciting items as you get to ready to leave to the store. He continues to list a few more items. Finally, he wraps up: "Coffee creamer, spaghetti sauce, dish liquid, and ice tea mix." You forget a couple of things, but you do manage to get the cat food, cola, and toothpaste. Your memory for these items reflects the \_\_\_\_\_ effect.

#### <u>A.</u> primacy

- B. recency
- C. serial memory
- D. item order

APA Goal Outcome: 1.2, 4.4 Bloom's Taxonomy: Apply Difficulty: Medium Learning Outcome: 20-2

31. (p. 219) You examine the schedule for your favorite football team. The team plays sixteen games each season. Later you try recalling that schedule for a friend who likes the same team you do. Chances are you will recall opponents at the beginning of the schedule particularly well. This is an example of the effect.

A. list B. consolidation <u>C.</u> primacy D. depth-of-processing

APA Goal Outcome: 1.2, 4.4 Bloom's Taxonomy: Apply Difficulty: Easy Learning Outcome: 20-2

32. (p. 219) The recency effect refers to the fact that:

<u>A.</u> items presented late in a list are remembered better than items presented in the middle of a list.

B. the first several items on a list are remembered better than the items in the middle of the list.

C. rehearsed items are more likely to be remembered than unrehearsed items.

D. the most personally relevant items on a list are most likely to be remembered.

APA Goal Outcome: 1.2 Bloom's Taxonomy: Remember Difficulty: Easy Learning Outcome: 20-2

33. (p. 219) "Milk, cereal, candy." Your roommate begins reciting items as you get ready to leave to the store. He continues to list a few more items. Finally, he wraps up: "Spaghetti sauce, dish liquid, and ice tea mix." You forget a few things, but the spaghetti sauce, dish liquid, and ice tea mix are in the bag. Your memory for these items reflects the \_\_\_\_\_ effect.

A. primacy

- **<u>B.</u>** recency
- C. list memory

D. serial order

APA Goal Outcome: 1.2, 4.4 Bloom's Taxonomy: Apply Difficulty: Medium Learning Outcome: 20-2

34. (p. 219) When you try to list all the classes you've ever taken in college, chances are you will recall your last few classes particularly well. What is this phenomenon called?

- A. Chunking
- B. Primacy effect
- C. Recency effect
- D. Memory consolidation

APA Goal Outcome: 1.2, 4.4 Bloom's Taxonomy: Apply Difficulty: Easy Learning Outcome: 20-2

35. (p. 219) Which of the following refers to declarative memory?

- A. Memory for habits
- B. Memory for skills
- C. Memory for how to do things
- **<u>D.</u>** Memory for names

APA Goal Outcome: 1.2, 4.4 Bloom's Taxonomy: Remember Difficulty: Easy Learning Outcome: 20-2

36. (p. 219) Which of the following forms of memory refers to memory for skills and habits?

A. Declarative memory

B. Semantic memory

C. Episodic memory

**D.** Procedural memory

APA Goal Outcome: 1.2, 4.4 Bloom's Taxonomy: Remember Difficulty: Easy Learning Outcome: 20-2

37. (p. 219) \_\_\_\_\_ memory is memory for general knowledge and facts about the world, as well as memory for the rules of logic that are used to deduce other facts.

A. Episodic **B.** Semantic
C. Nondeclarative
D. Procedural

APA Goal Outcome: 1.2, 4.4 Bloom's Taxonomy: Remember Difficulty: Easy Learning Outcome: 20-2

38. (p. 219) Knowing how to serve a badminton birdie is an example of a(n) \_\_\_\_\_ memory.
A. episodic
B. declarative
C. procedural

D. semantic

APA Goal Outcome: 1.2, 4.4 Bloom's Taxonomy: Apply Difficulty: Easy Learning Outcome: 20-2 39. (p. 219) Cory knows that the capital of Vermont is Montpelier. This is an example of \_\_\_\_\_ memory.

<u>A.</u> semantic

B. episodic

- C. procedural
- D. nondeclarative

APA Goal Outcome: 1.2, 4.4 Bloom's Taxonomy: Apply Difficulty: Medium Learning Outcome: 20-2

40. (p. 220) Having done "21 for 21" shots, Deanna barely remembers her 21<sup>st</sup> birthday. That is, her \_\_\_\_\_ memory is sketchy.

A. procedural B. semantic

<u>C.</u> episodic

D. working

APA Goal Outcome: 1.2, 4.4 Bloom's Taxonomy: Apply Difficulty: Easy Learning Outcome: 20-2

41. (p. 220) Which of the following statements accurately captures the relationship among the modules of long-term memory?

A. Episodic and semantic memory are both components of procedural memory.

**<u>B.</u>** Episodic and semantic memory are both components of declarative memory.

C. Declarative and semantic memory are both types of episodic memory.

D. Declarative and semantic memory are both types of procedural memory

APA Goal Outcome: 1.2 Bloom's Taxonomy: Remember Difficulty: Medium Learning Outcome: 20-2 42. (p. 221) Activating one memory triggers the activation of related memories in a process known as:
<u>A.</u> spreading activation.
B. elaborative rehearsal.
C. network priming.

D. rote learning.

APA Goal Outcome: 1.2 Bloom's Taxonomy: Remember Difficulty: Medium Learning Outcome: 20-2

43. (p. 222) The hippocampus is located in the \_\_\_\_\_ lobe.
A. frontal
B. parietal
C. temporal

D. occipital

APA Goal Outcome: 1.2 Bloom's Taxonomy: Remember Difficulty: Easy Learning Outcome: 20-3

44. (*p. 222*) Which of the following is true of the neuroscience of memory?

A. In the process of long-term potentiation, memories become fixed and stable in long-term memory.

B. The process called consolidation shows that certain neural pathways become easily excited while a new response is being learned.

C. The initial encoding of information aided by the amygdala is passed along to the hippocampus, where it is actually stored.

**D.** The engram is the physical memory trace in the brain that corresponds to a memory.

APA Goal Outcome: 1.2, 2.3, 4.4, 7.3 Bloom's Taxonomy: Remember Difficulty: Medium Learning Outcome: 20-3 45. (p. 223) Which of the following is true of the neuroscience of memory? A. The initial encoding of information aided by the hippocampus is passed along to the amygdala.

**<u>B.</u>** The amygdala is especially involved with memories involving emotion.

C. The hippocampus is located within the brain's frontal lobes.

D. The amygdala aids in the initial encoding of information, acting as a kind of neurological e-mail system.

APA Goal Outcome: 1.2, 2.3, 4.4, 7.3 Bloom's Taxonomy: Remember Difficulty: Medium Learning Outcome: 20-3

46. (p. 222) Estelle remembers a night she was mugged and brutally beaten. This memory probably involves not only her hippocampus, but also her:

A. cerebellum.

B. hypothalamus.

C. thalamus.

**D.** amygdala.

APA Goal Outcome: 1.2, 4.4 Bloom's Taxonomy: Apply Difficulty: Medium Learning Outcome: 20-3

47. (p. 222) Long-term potentiation refers to the process whereby:

A. the number of synaptic and dendritic connections between neurons increases with experience.

B. memories become fixed and stable for the long term.

<u>**C.**</u> neural pathways become activated more easily as learning occurs.

D. disturbing memories seem to gain in intensity over time.

APA Goal Outcome: 1.2 Bloom's Taxonomy: Remember Difficulty: Medium Learning Outcome: 20-3 48. (p. 223) Maguire, Woollett, & Spiers conducted an fMRI study of the role of the hippocampus in spatial memory. The study showed that years of experience driving a taxi in London was \_\_\_\_\_ correlated with the size of posterior portions of the hypothalamus and \_\_\_\_\_ correlated with the size of anterior portions of the hypothalamus.

<u>A.</u> positively; negatively

B. positively; positively

C. negatively; negatively

D. negatively; positively

APA Goal Outcome: 1.2, 2.3, 4.4, 7.3 Bloom's Taxonomy: Understand Difficulty: Difficult Learning Outcome: 20-3

49. (p. 223) The term engram is generally discouraged by psychologists studying memory. Why might this be?

A. Psychologists do not believe it is possible to identify the physical brain bases of a memory.

**<u>B.</u>** There is probably no single site or process in the brain corresponding to a particular memory.

C. Any given memory probably involves many simultaneous brain processes and locations as a stimulus contains a single sensory aspect.

D. The term engram typically involves physical memory that corresponds only to sensory memory.

APA Goal Outcome: 1.2 Bloom's Taxonomy: Understand Difficulty: Medium Learning Outcome: 20-3

50. (*p. 226*) "I know it! It's um . . . um . . . It starts with 'G'," begins a trivia game contestant excitedly. The contestant is falling prey to the \_\_\_\_\_ effect.

#### <u>A.</u> tip-of-the-tongue

B. flashbulb memory

C. motivated forgetting

D. retrograde interference

APA Goal Outcome: 1.2, 4.4

Bloom's Taxonomy: Apply Difficulty: Easy Learning Outcome: 21-1

51. (p. 226) Almost everybody has had the feeling of knowing the answer to a question, but not being quite able to say it. This is called the "tip-of-the-tongue" phenomenon, and is a failure of:

A. retention.

B. storage.

<u>**C.**</u> retrieval.

D. trace consolidation.

APA Goal Outcome: 1.2 Bloom's Taxonomy: Understand Difficulty: Easy Learning Outcome: 21-1

52. (p. 226) Mickey is about to take his psychology final. Just before the exam, the person sitting next to Mickey asks him the name of the physiologist who worked on classical conditioning. Mickey suddenly realizes that he cannot quite remember the name, but he knows that it starts with a P and is two syllables long. Mickey is experiencing:

A. repression.

B. simple decay.

- C. retrograde amnesia.
- **<u>D.</u>** the tip-of-the-tongue phenomenon.

APA Goal Outcome: 1.2, 4.4 Bloom's Taxonomy: Apply Difficulty: Medium Learning Outcome: 21-1

53. (p. 226) Why is it so difficult to retrieve information from long-term memory? A. The capacity of long-term memory is limited.

B. The duration of long-term memories is limited.

**<u>C.</u>** There is so much information being stored in long-term memory.

D. The material that makes its way to long-term memory is temporary.

APA Goal Outcome: 1.2 Bloom's Taxonomy: Remember Difficulty: Easy Learning Outcome: 21-1

54. (p. 226) A stimulus that facilitates the recall of information from long-term memory is called a:
<u>A.</u> retrieval cue.
B. flashbulb memory.
C. conservation.
D. chunking.

APA Goal Outcome: 1.2 Bloom's Taxonomy: Remember Difficulty: Easy Learning Outcome: 21-1

55. (p. 226) An "oldie" playing on the radio may remind you of events that occurred when the song was current. The song is acting as a(n):

<u>A.</u> retrieval cue.

B. mnemonic.

C. flashbulb.

D. schema.

APA Goal Outcome: 1.2, 4.4 Bloom's Taxonomy: Apply Difficulty: Easy Learning Outcome: 21-1

56. (p. 226) Chad is puzzling over a difficult question on a multiple-choice sociology test. He re-reads the question, scans the options beneath the question, and glances at other questions on the test. Most likely, Chad is looking for:

A. mnemonics.
B. flashbulb memories.
<u>C.</u> retrieval cues.
D. a miracle.

APA Goal Outcome: 1.2, 4.4 Bloom's Taxonomy: Apply Difficulty: Medium

## 57. (p. 226) Ralph is preparing a report on his academic field trip to a manufacturing plant. He is trying to remember each event of the trip in the order in which it occurred to prepare an accurate report in a presentable form. Which of the following memory tasks is Ralph using?

A. Rehearsal

**B.** Recognition

C. Consolidation

D. Recall

APA Goal Outcome: 1.2 Bloom's Taxonomy: Apply Difficulty: Medium Learning Outcome: 21-1

58. (p. 226) Three year-old Jane had learned the names of fruits from a picture book. She was taken to a grocery store and asked to identify apples and melons kept in the store. Which of the following memory tasks would be used by Jane to identify the fruits?

- A. Rehearsal
- **B.** Recognition
- C. Consolidation
- D. Recall

APA Goal Outcome: 1.2 Bloom's Taxonomy: Apply Difficulty: Medium Learning Outcome: 21-1

59. (p. 226) "Discuss several factors that contributed to the economic collapse of late 2008," asks a question on the midterm in an Economics course. Such a question is a test of \_\_\_\_\_ memory.

#### <u>A</u>. recall

- B. procedural
- C. recognition
- D. non-declarative

APA Goal Outcome: 1.2, 4.4 Bloom's Taxonomy: Apply Difficulty: Medium 60. (p. 226) \_\_\_\_\_ is a memory task in which individuals are presented with a stimulus and asked whether they have been exposed to it in the past or to identify it from a list of alternatives.

A. Recall

**<u>B.</u>** Recognition

C. Rehearsal

D. Chunk

APA Goal Outcome: 1.2 Bloom's Taxonomy: Remember Difficulty: Easy Learning Outcome: 21-1

61. (*p.* 227) The levels-of-processing approach:

A. assumes that the longer material is in working memory the more deep will be its memory traces.

B. is primarily concerned with a type of memory called "procedural."

<u>C.</u> suggests that thinking about material leads to better memory than does maintenance rehearsal.

D. holds that meaningless material produces greater depth of processing than does material that can easily be fitted into meaningful contexts.

APA Goal Outcome: 1.2 Bloom's Taxonomy: Understand Difficulty: Medium Learning Outcome: 21-1

62. (*p.* 227) Which of the following is true of the levels-of-processing theory? A. At deep levels of processing, information is processed in terms of its physical and sensory aspects.

B. At shallow levels of processing, information is analyzed in terms of its meaning.

C. When the initial level of processing of specific information is shallow, the information will be retained for longer.

**D.** At an intermediate level of processing, information is translated into meaningful units.

APA Goal Outcome: 1.2 Bloom's Taxonomy: Understand Difficulty: Medium Learning Outcome: 21-1

63. (p. 227) The levels-of-processing approach suggests:

<u>A.</u> specific information will be retained for longer when the level of information processing is deeper.

B. the existence of the three separate memory stores: sensory memory, shot-term memory, and long-term memory.

C. the lesser the intensity of the initial processing of information, the more likely we are to remember it.

D. when the initial level of processing of specific information is shallow, the information will be retained for longer.

APA Goal Outcome: 1.2 Bloom's Taxonomy: Understand Difficulty: Medium Learning Outcome: 21-1

64. (*p. 227*) According to the levels-of-processing theory, which of the following study techniques would enhance memory best?

A. Highlighting important passages in the text

B. Reading aloud important passages in the text

**<u>C.</u>** Focusing on the meaning of important passages in the text

D. Visualizing pages from the text, then "reading" the material contained in them

APA Goal Outcome: 1.2, 4.4, 9.3 Bloom's Taxonomy: Apply Difficulty: Medium Learning Outcome: 21-1

65. (*p. 227*) According to the levels-of-processing theory, which of the following students should retrieve information more successfully on classroom tests?

A. Grant, who attempts to memorize his notes

**<u>B.</u>** Irene, who pays close attention to what is taught in class

C. Noel, who reads the content in his text loudly

D. Giselle, who underlines the important content in the text

APA Goal Outcome: 1.2, 4.4, 9.3 Bloom's Taxonomy: Apply Difficulty: Medium Learning Outcome: 21-1

66. (p. 227, 228) A typical multiple-choice question on a psychology test is an example of both a \_\_\_\_\_ and a(n) \_\_\_\_\_ test of memory.
A. recall; implicit
B. recall; explicit
C. recognition; implicit
D. recognition; explicit

APA Goal Outcome: 1.2, 4.4 Bloom's Taxonomy: Apply Difficulty: Medium Learning Outcome: 21-1

67. (p. 228) Which of the following searches explicit memory?
A. Jumping out of the path of an automobile coming toward us
B. A feeling of vague dislike for an acquaintance, without knowing why we have that feeling
C. Twing to remember a name encountered or learned about previously.

**<u>C.</u>** Trying to remember a name encountered or learned about previously D. Picking up the phone whenever it rings

APA Goal Outcome: 1.2 Bloom's Taxonomy: Understand Difficulty: Easy Learning Outcome: 21-1

68. (p. 228) Julia is puzzling over a fill-in-the-blank question on a sociology test. To answer the question correctly, Julia has to use \_\_\_\_\_ memory.

<u>A.</u> explicit B. implicit C. subconscious

D. implied

APA Goal Outcome: 1.2, 4.4 Bloom's Taxonomy: Apply Difficulty: Medium Learning Outcome: 21-1

69. (p. 224) "I know it! It's um . . . um . . . ," begins a trivia game contestant excitedly. The contestant is engaged in a test of her \_\_\_\_\_ memory.
A. external **B.** explicit
C. internal
D. implicit

APA Goal Outcome: 1.2 Bloom's Taxonomy: Apply Difficulty: Easy Learning Outcome: 21-1

70. (p. 224) Bart remembers the release date of his favorite movie director's upcoming project. Which of the following forms of memory would have helped Bart?

A. Implicit memory

B. External memory

<u>**C.**</u> Explicit memory

D. Internal memory

APA Goal Outcome: 1.2 Bloom's Taxonomy: Apply Difficulty: Easy Learning Outcome: 21-1

71. (p. 228) Memories of which we are not consciously aware are called \_\_\_\_\_\_ memories.
A. internal
B. subliminal
C. subconscious **D.** implicit

APA Goal Outcome: 1.2 Bloom's Taxonomy: Remember Difficulty: Easy Learning Outcome: 21-1 72. (p. 228) Which of the following is true of explicit memory and implicit memory?

A. Explicit memory and implicit memory cannot exist side by side.

B. Explicit memory can be studied through experiments that use priming.

**<u>C.</u>** Implicit memory is involved in prejudice and discrimination.

D. Implicit memory refers to memories of which people are consciously aware.

APA Goal Outcome: 1.2 Bloom's Taxonomy: Understand Difficulty: Easy Learning Outcome: 21-1

73. (p. 228) \_\_\_\_\_ is a phenomenon in which exposure to a word or concept later makes it easier to recall related information, even when there is no conscious memory of the word or concept.

A. Rehearsal

<u>**B.**</u> Priming

C. Chunking

D. Flashbulb

APA Goal Outcome: 1.2 Bloom's Taxonomy: Remember Difficulty: Easy Learning Outcome: 21-1

74. (p. 228) Some psychologists consider classical conditioning to be a form of implicit memory. Which of the following is probably the best reason for suggesting that classical conditioning is a type of implicit memory?

<u>**A.**</u> Classical conditioning occurs outside awareness.

B. Classical conditioning requires conscious awareness.

C. Classical conditioning is one mechanism whereby we learn actions and skills that we can recollect intentionally.

D. Classical conditioning allows us to learn from experience.

APA Goal Outcome: 1.2 Bloom's Taxonomy: Understand Difficulty: Difficult Learning Outcome: 21-1

### 75. (p. 229) The 9/11 attacks on the World Trade Center, Princess Diana's death, and the 1986 Challenger explosion. People's memories for the moment in which they learned of these events are termed \_\_\_\_\_ memories. A. nondeclarative **B.** flashbulb

C. implicit

D. procedural

APA Goal Outcome: 1.2, 4.4 Bloom's Taxonomy: Remember Difficulty: Easy Learning Outcome: 21-1

76. (p. 229) Flashbulb memories:

A. typically concern major, unexpected public or personal events.

B. are remarkably accurate, even years after the initial event.

C. must be due to special encoding mechanisms for emotionally charged events.

D. are generally less accurate than memories for more mundane events, because of the emotion surrounding the original event.

APA Goal Outcome: 1.2 Bloom's Taxonomy: Understand Difficulty: Medium Learning Outcome: 21-1

77. (p. 229) Which of the following is true of flashbulb memories?

A. The less distinctive a stimulus is, the more likely we are to recall it later.

B. A distinctive stimulus always helps us remember where the information came from.

C. Flashbulb memories contain every detail of an original scene.

**D.** The details recalled in flashbulb memories are often inaccurate.

APA Goal Outcome: 1.2 Bloom's Taxonomy: Remember Difficulty: Medium Learning Outcome: 21-1

# 78. (p. 228) Christopher clearly remembers that he was practicing his dialogues for his school play when he heard that the governor of his state had been assassinated. This is an example of a(n) \_\_\_\_\_ memory. A. nondeclarative **B.** flashbulb C. implicit D. procedural

APA Goal Outcome: 1.2 Bloom's Taxonomy: Apply Difficulty: Difficult Learning Outcome: 21-1

79. (p. 229) \_\_\_\_\_ amnesia occurs when an individual has a memory for some material but cannot recall where he or she encountered it.

A. Retrograde **<u>B.</u>** Source

C. Anterograde

D. Dissociative

APA Goal Outcome: 1.2, 4.4 Bloom's Taxonomy: Remember Difficulty: Easy Learning Outcome: 21-1

80. (p. 229) "I don't know who told me first, but I heard that Kenny" Lana begins, sharing gossip on the phone to a friend. Lana is experiencing:

A. anterograde amnesia.

B. retrograde amnesia.

C. dissociative amnesia.

**D.** source amnesia.

APA Goal Outcome: 1.2, 4.4 Bloom's Taxonomy: Apply Difficulty: Medium Learning Outcome: 21-1 81. (p. 229) During a conversation, Jerry told his friend that their favorite rock band was coming to perform in their city. However, he could not remember the medium through which he got the information about the show. Jerry was experiencing:

A. anterograde amnesia.

B. retrograde amnesia.

C. dissociative amnesia.

<u>**D.**</u> source amnesia.

APA Goal Outcome: 1.2, 4.4 Bloom's Taxonomy: Apply Difficulty: Medium Learning Outcome: 21-1

82. (p. 230) \_\_\_\_\_ is a process in which memories are influenced by the meaning we give to events.

A. Nondeclarative process

**B.** Consolidation

<u>**C.**</u> Constructive process

D. Long-term potentiation

APA Goal Outcome: 1.2 Bloom's Taxonomy: Remember Difficulty: Easy Learning Outcome: 21-1

83. (p. 231) The first psychologist to emphasize the importance of constructive processes in memory was:
<u>A.</u> Frederic Bartlett.
B. Hermann Ebbinghaus.
C. George Miller.
D. George Sperling.

APA Goal Outcome: 1.2 Bloom's Taxonomy: Remember Difficulty: Easy Learning Outcome: 21-1 84. (p. 231) A schema is:
<u>A.</u> a conceptual framework for interpreting a situation.
B. a form of proactive interference.
C. an important result of decay.
D. an item that has been forgotten.

D. all itelli that has been forgotte

APA Goal Outcome: 1.2 Bloom's Taxonomy: Remember Difficulty: Easy Learning Outcome: 21-1

85. (p. 231) How does use of a schema improve memory?

A. A schema improves memory for details.

**<u>B.</u>** A schema provides a framework to use in interpreting a situation.

C. A schema helps avoid making errors in remembering the details of a situation.

D. A schema prevents the erosion of implicit memories.

APA Goal Outcome: 1.2 Bloom's Taxonomy: Understand Difficulty: Medium Learning Outcome: 21-1

86. (p. 231) Dr. Tranh has given so many lectures that he gives little thought to what he expects might happen: He assumes students will assemble, take notes, and occasionally ask a question. That Dr. Tranh finds the process so routine reflects the development of:

A. a semantic association.

B. explicit memory.

C. a retrieval path.

**D.** a schema.

APA Goal Outcome: 1.2, 4.4 Bloom's Taxonomy: Apply Difficulty: Medium Learning Outcome: 21-1 87. (p. 232) Loftus and Palmer (1974) conducted an experiment in which participants estimated the speed of a car described as either contacting or smashing into another. To which of the following conclusions regarding eyewitness memory is this study most relevant?

A. The presence of a weapon attracts witnesses' attention, impairing their memory.

**<u>B.</u>** Eyewitnesses confidence is only weakly related to eyewitness memory.

C. Eyewitness memory can be heavily influenced by leading questions.

D. Child eyewitnesses are especially suggestible.

APA Goal Outcome: 1.2, 4.4 Bloom's Taxonomy: Understand Difficulty: Difficult Learning Outcome: 21-1

88. (p. 232) The unconscious process whereby disturbing memories are prevented from entering awareness is called:

A. repression.

B. denial.

C. projection.

D. suppression.

APA Goal Outcome: 1.2 Bloom's Taxonomy: Remember Difficulty: Easy Learning Outcome: 21-1

89. (p. 232) The idea that disturbing memories may be repressed derives from: **A.** Freud's psychoanalytic theory.

B. Bartlett's constructive memory approach.

C. Loftus's notion of false memories.

D. the three-stage model of memory.

APA Goal Outcome: 1.2, 1.4 Bloom's Taxonomy: Remember Difficulty: Medium Learning Outcome: 21-1 90. (*p. 233*) Which of the following alternatives best expresses psychologist Elizabeth Loftus' position on the validity of repressed memories?

<u>A.</u> Repressed memories are often false. They reflect confusion regarding the source of a memory.

B. Repressed memories are often false. They reflect an impairment of implicit memory mechanisms.

C. Repressed memories are often false. They reflect a failure of maintenance rehearsal.

D. Repressed memories are often true. They reflect the operation of defense mechanisms protecting us from unpleasant or disturbing thoughts.

APA Goal Outcome: 1.2 Bloom's Taxonomy: Understand Difficulty: Medium Learning Outcome: 21-1

91. (p. 233) Middle-aged Mrs. Lovett is recalling her first Christmas as a young newlywed at her in-laws' Wyoming ranch. This is a(n) \_\_\_\_\_ memory.

- A. procedural
- B. implicit

<u>C.</u> autobiographical

D. nondeclarative

APA Goal Outcome: 1.2, 4.4 Bloom's Taxonomy: Apply Difficulty: Medium Learning Outcome: 21-1 92. (p. 233) Which of the following best encapsulates autobiographical memory?
A. Autobiographical memory is just as inaccurate as other types of memory are. The different periods of one's life are remembered with equal ease. **B.** Autobiographical memory is just as inaccurate as other types of memory are. Some periods of one's life are recalled more easily than are others.
C. Autobiographical memory is more accurate than other types of memory are. The different periods of one's life are remembered with equal ease.
D. Autobiographical memory is more accurate than other types of memory are. Some periods of one's life are recalled more easily than are others.

APA Goal Outcome: 1.2 Bloom's Taxonomy: Understand Difficulty: Medium Learning Outcome: 21-1

93. (p. 234) One's culture is most likely to influence:

A. short-term memory capacity.

B. the structure of long-term memory.

<u>C.</u> the strategies one uses to recall information from long-term memory.

D. the structure of procedural memory.

APA Goal Outcome: 1.2, 5.5, 8.2 Bloom's Taxonomy: Remember Difficulty: Medium Learning Outcome: 21-1

94. (p. 234) With respect to the potential influence of a written language on the recall ability of a culture's members, research has:

A. revealed that a written language tends to decrease people's memory ability.

B. shown that a written language tends to increase people's memory ability.

<u>**C.</u>** revealed that a written language probably has little influence on people's memory ability.</u>

D. not yielded a definitive conclusion as of yet.

APA Goal Outcome: 1.2, 5.5, 8.2 Bloom's Taxonomy: Remember Difficulty: Medium Learning Outcome: 21-1 95. (p. 236) The first attempts to study forgetting scientifically were made by the German psychologist:

<u>A.</u> Hermann Ebbinghaus.

B. Wilhelm Wundt.

C. Ernst Heinrich Weber.

D. Georg Elias Muller.

APA Goal Outcome: 1.2 Bloom's Taxonomy: Remember Difficulty: Easy Learning Outcome: 22-1

96. (*p. 236*) Which of the following statements best describes the forgetting function that Ebbinghaus discovered?

A. Material is forgotten at a relatively constant rate once it has been learned.

B. Nothing is ever really forgotten.

C. Material is forgotten at a relatively slow rate at first, then the rate of forgetting speeds up.

**D.** Material is forgotten relatively rapidly at first, then the rate of forgetting slows down.

APA Goal Outcome: 1.2 Bloom's Taxonomy: Understand Difficulty: Medium Learning Outcome: 22-1

97. (p. 236) Which of the following best describes the results of Ebbinghaus's work on forgetting?

A. You'll remember what you learn pretty well for a day or two, but then you'll begin rapidly forgetting the material.

B. Beginning immediately, you'll slowly forget what you've learned at a relatively constant rate.

<u>**C.</u>** You'll forget most of it right away, and you'll keep on forgetting more of it, though at a slower rate.</u>

D. I forget.

APA Goal Outcome: 1.2 Bloom's Taxonomy: Understand Difficulty: Medium Learning Outcome: 22-1 98. (p. 237) Jerry is at a party. He is introduced to three different people in the span of a moment. Later, he is approached by the first person he met and cannot remember her name. Which of the following is most likely the source of Jerry's difficulty?

<u>A.</u> Jerry failed to encode the woman's name.

B. Jerry's working memory capacity was exceeded by the number of people he met.

C. Jerry experienced interference in retrieving the woman's name.

D. Jerry failed to rehearse the woman's name sufficiently.

APA Goal Outcome: 1.2, 4.4 Bloom's Taxonomy: Apply Difficulty: Medium Learning Outcome: 22-1

99. (p. 237-238) Drew is unable to recall whether Lincoln's head faces left or right on the penny. Which of the following is probably the best explanation for Drew's memory failure?

A. The information is difficult to retrieve, because it is stored along with so many other pieces of information in Drew's long-term memory.

B. The information was learned so long ago that it is no longer stored in Drew's long-term memory.

<u>**C.</u>** The information was not encoded, because Drew never really paid attention to Lincoln's head on the penny.</u>

D. The information was immediately displaced from Drew's working memory after it was encoded.

APA Goal Outcome: 1.2 Bloom's Taxonomy: Apply Difficulty: Medium Learning Outcome: 22-1 100. (*p. 237-238*) Which of the following is the best reason that we have trouble remembering the license plate number of a car that we just passed ten minutes ago?

A. Working memory lasts only a minute or so.

B. License plate numbers are too difficult to remember easily.

**<u>C.</u>** We probably never encoded the number in the first place.

D. The memory, though present, is too difficult to retrieve except under special circumstances, such as hypnosis or substantial amounts of stress.

APA Goal Outcome: 1.2, 4.4 Bloom's Taxonomy: Apply Difficulty: Medium Learning Outcome: 22-1

101. (*p. 238*) Which theory of forgetting is correctly matched with its description? <u>**A.**</u> Decay—Information is lost over time as a result of nonuse.

B. Interference—Forgetting occurs when there are too few "triggers" to recall the information.

C. Cue-dependent—Forgetting occurs because other information in memory disrupts the retrieval of the information we are trying to remember.

D. Retroactive interference—Information learned earlier disrupts the recall of newer material.

APA Goal Outcome: 1.2 Bloom's Taxonomy: Remember Difficulty: Medium Learning Outcome: 22-1

102. (*p.* 238) Which of the following statements best describes the fate of the decay theory of forgetting in psychology?

A. It has been completely discredited as a theory of forgetting.

**<u>B.</u>** It is an incomplete theory of forgetting.

C. It has largely been affirmed as a theory of forgetting.

D. It has been supplanted by more contemporary theories of forgetting.

APA Goal Outcome: 1.2 Bloom's Taxonomy: Understand Difficulty: Medium Learning Outcome: 22-1 103. (p. 239) In \_\_\_\_\_ interference, information learned earlier disrupts the recall of information learned more recently; in \_\_\_\_\_ interference, recently learned information disrupts the recall of information learned earlier.

A. retroactive; proactive

**<u>B.</u>** proactive; retroactive

C. regressive; progressive

D. progressive; regressive

APA Goal Outcome: 1.2 Bloom's Taxonomy: Remember Difficulty: Medium Learning Outcome: 22-1

104. (p. 239) Owen has trouble remembering a friend's new phone number; he keeps recalling the old number instead. Completing a rental application, Pippa finds she can't recall one of her previous addresses, as she's had several addresses since. Owen is experiencing \_\_\_\_\_\_ interference; Pippa is experiencing

A. retrograde; anterograde interference

**<u>B.</u>** proactive; retroactive interference

C. proactive; proactive interference as well

D. retroactive; proactive interference

APA Goal Outcome: 1.2, 4.4 Bloom's Taxonomy: Apply Difficulty: Medium Learning Outcome: 22-1

105. (*p. 240*) \_\_\_\_\_, an illness characterized in part by severe memory problems, is the fourth leading cause of death among adults in the United States.

A. Korsakoff's syndrome

B. Parkinsonism

<u>C.</u> Alzheimer's disease

D. Stickler syndrome

APA Goal Outcome: 1.2 Bloom's Taxonomy: Remember
*Difficulty: Medium Learning Outcome: 22-2* 

106. (p. 240) In \_\_\_\_\_ amnesia, memory is lost for events preceding an injury or accident; in \_\_\_\_\_ amnesia, memory is lost for events following an injury or accident.

<u>A.</u> retrograde; anterograde

B. anterograde; retrograde

C. retroactive; proactive

D. proactive; retroactive

APA Goal Outcome: 1.2 Bloom's Taxonomy: Remember Difficulty: Medium Learning Outcome: 22-2

107. (p. 240) Omar experienced a dissociative fugue state. He suddenly snapped out of it in front of a pet-supplies display in a discount store; he had no memory whatsoever of his previous life in Greensboro, NC. Omar's amnesia is best described as:

- A. proactive
- B. anterograde
- C. retroactive
- **D.** retrograde

APA Goal Outcome: 1.2, 4.2 Bloom's Taxonomy: Apply Difficulty: Medium Learning Outcome: 22-2

108. (p. 240) Rhonda can't remember anything about the first several minutes immediately following a car crash in which she was injured. Rhonda is experiencing \_\_\_\_\_ amnesia.

- <u>A.</u> anterograde
- B. retrograde
- C. retroactive
- D. proactive

APA Goal Outcome: 1.2, 4.2 Bloom's Taxonomy: Apply Difficulty: Medium 109. (*p.* 240) Pierre has been an alcoholic for several decades. Now in his 50s, his intellectual abilities are intact, but he suffers from memory deficits and hallucinations. Based on this information, you suspect that Pierre may be afflicted with:

A. proactive interference.

B. Alzheimer's disease.

C. anterograde amnesia.

**D.** Korsakoff's syndrome.

APA Goal Outcome: 1.2, 4.2 Bloom's Taxonomy: Apply Difficulty: Easy Learning Outcome: 22-2

110. (*p.* 240) Dr. Ziemer is seeing a new patient, Mrs. Aaronson. Mrs. Aaronson is experiencing memory losses. Dr. Ziemer tests Mrs. Aaronson's language and problem-solving abilities. He also asks Mrs. Aaronson if she has a history of alcohol abuse. What might the language and problem-solving tests tell Dr. Ziemer? What would the answer to the alcohol abuse question tell him? <u>A.</u> The language and problem-solving tests would help Dr. Ziemer determine whether Mrs. Aaronson suffers from Alzheimer's disease on the one hand, or some form of amnesia on the other. The answer to the alcohol abuse question would let Dr. Ziemer know whether Korsakoff's syndrome is a possibility in Mrs. Aaronson's case.

B. The language and problem-solving tests would help Dr. Ziemer determine whether Mrs. Aaronson suffers from Alzheimer's disease on the one hand, or Korsakoff's syndrome on the other. The answer to the alcohol abuse question would let Dr. Ziemer know whether anterograde amnesia is a possibility in Mrs. Aaronson's case.

C. The language and problem-solving tests would help Dr. Ziemer determine whether Mrs. Aaronson suffers from Korsakoff's syndrome on the one hand, or some form of amnesia on the other. The answer to the alcohol abuse question would let Dr. Ziemer know whether Alzheimer's disease is a possibility in Mrs. Aaronson's case.

D. The language and problem-solving tests would help Dr. Ziemer determine whether Mrs. Aaronson suffers from anterograde amnesia on the one hand, or retrograde amnesia on the other. The answer to the alcohol abuse question would let Dr. Ziemer know whether Korsakoff's syndrome is a possibility in Mrs. Aaronson's case. APA Goal Outcome: 1.2, 4.2 Bloom's Taxonomy: Apply Difficulty: Difficult Learning Outcome: 22-2

#### Fill in the Blank Questions

111. (p. 213) While a computer's hard drive may be likened to the memory process of storage, its keyboard is analogous to the process of \_\_\_\_\_. **encoding** 

APA Goal Outcome: 1.2 Bloom's Taxonomy: Understand Difficulty: Medium Learning Outcome: 20-1

112. (p. 214) You have just listened to your current favorite song on your iPod. You can still hear traces of the final chorus, even though the song has just ended. For a few seconds, the song will be represented in auditory sensory memory, or \_\_\_\_\_ memory. **echoic** 

APA Goal Outcome: 1.2, 4.4 Bloom's Taxonomy: Apply Difficulty: Medium Learning Outcome: 20-2

113. (p. 216) A(n) \_\_\_\_\_ is a meaningful group of stimuli that can be stored as a unit in short- term memory. **chunk** 

APA Goal Outcome: 1.2 Bloom's Taxonomy: Remember Difficulty: Easy Learning Outcome: 20-2 114. (p. 217) When faced with a list of terms to memorize in one of his college courses, Brendan creates an acrostic—a sentence in which successive words begin with the same letter as the corresponding list word. Formal organizational strategies such as this are termed \_\_\_\_\_. **mnemonics** 

APA Goal Outcome: 1.2, 4.4 Bloom's Taxonomy: Apply Difficulty: Medium Learning Outcome: 20-2

115. (p. 218) Mental arithmetic entails the activity of both the visual and the verbal stores in working memory; the \_\_\_\_\_ coordinates the operation of these two subsystems. **central executive** 

APA Goal Outcome: 1.2 Bloom's Taxonomy: Apply Difficulty: Medium Learning Outcome: 20-2

### 116. (p. 219) Semantic and episodic memory are subdivisions of \_\_\_\_\_ memory. **declarative**

APA Goal Outcome: 1.2 Bloom's Taxonomy: Analysis Difficulty: Easy Learning Outcome: 20-2

117. (p. 221) Rhoda is thinking of a family reunion last summer. This reminds her that a close friend is attending the same college in which her cousin is enrolled; her thoughts then turn to the reading assignments she has neglected in one of her classes. The process of \_\_\_\_\_ describes how one memory brings up another in our network of mental representations. **spreading activation** 

APA Goal Outcome: 1.2, 4.4 Bloom's Taxonomy: Apply *Difficulty: Difficult Learning Outcome: 20-2* 

118. (p. 222) Dr. Sally acquired her neurosurgery degree at an online college based in the West Indies. Unfortunately, during her first brain surgery, she inadvertently destroyed her patient's hippocampus, impairing his process of \_\_\_\_\_, whereby memories are stabilized in long-term memory. consolidation

APA Goal Outcome: 1.2 Bloom's Taxonomy: Apply Difficulty: Medium Learning Outcome: 20-3

119. (p. 226) A \_\_\_\_\_ is a stimulus that allows us to recall more easily information that is in long-term memory. **retrieval cue** 

APA Goal Outcome: 1.2 Bloom's Taxonomy: Remember Difficulty: Easy Learning Outcome: 21-1

120. (p. 227) "You'll probably do better on the test if you put more effort into understanding what the chapter's trying to say in the first place," one of your professors admonishes the class. You are reminded of the \_\_\_\_\_ theory of memory retrieval. **levels-of-processing** 

APA Goal Outcome: 1.2, 4.4 Bloom's Taxonomy: Apply Difficulty: Medium Learning Outcome: 21-1 121. (p. 228) "It's like riding a bike; once you know how, you don't forget." This adage suggests that procedural memories do not require conscious attempts at recall; that is, procedural memories are often \_\_\_\_\_. **implicit** 

APA Goal Outcome: 1.2, 4.4 Bloom's Taxonomy: Understand Difficulty: Difficult Learning Outcome: 21-1

122. (p. 228) Implicit memory is often studied through experiments that use \_\_\_\_\_. **primes (or priming)** 

APA Goal Outcome: 2.1 Bloom's Taxonomy: Remember Difficulty: Easy Learning Outcome: 21-1

123. (p. 229) I was a second-semester freshman. I was eating French fries in the college cafeteria when my friend Liz came up. She was wearing that plaid coat with her yellow skirt, along with that moss-green embroidered bag, the one with a Grecian urn embroidered on it. She told me the shuttle blew up. This is my \_\_\_\_\_ memory of the 1986 Challenger disaster. **flashbulb** 

APA Goal Outcome: 1.2, 4.4 Bloom's Taxonomy: Apply Difficulty: Easy Learning Outcome: 21-1

124. (p. 230) \_\_\_\_\_ processes are processes in which memories are influenced by the meaning we give to events. **Constructive** 

APA Goal Outcome: 1.2 Bloom's Taxonomy: Remember Difficulty: Difficult Learning Outcome: 21-1

# 125. (p. 231) Organized bodies of information stored in memory that bias the way new information is interpreted, stored, and recalled are called \_\_\_\_\_. schemas

APA Goal Outcome: 1.2 Bloom's Taxonomy: Remember Difficulty: Difficult Learning Outcome: 21-1

126. (*p. 232*) \_\_\_\_\_ memories are recollections of events that are initially so shocking that the mind responds by pushing them into the unconscious. **Repressed** 

APA Goal Outcome: 1.2, 3.1 Bloom's Taxonomy: Remember Difficulty: Medium Learning Outcome: 21-1

127. (p. 233) \_\_\_\_\_ memories are our recollections of circumstances and episodes from our own lives. **Autobiographical** 

APA Goal Outcome: 1.2 Bloom's Taxonomy: Remember Difficulty: Medium Learning Outcome: 21-1

128. (p. 238) The phenomenon by which information in memory disrupts the recall of other information is called \_\_\_\_\_. **interference** 

APA Goal Outcome: 1.2 Bloom's Taxonomy: Remember Difficulty: Medium Learning Outcome: 22-1

# 129. (p. 240) \_\_\_\_\_ is a memory disorder in which memory losses occur in the absence of other cognitive decrements. <u>Amnesia</u>

APA Goal Outcome: 1.2, 4.2 Bloom's Taxonomy: Remember Difficulty: Medium Learning Outcome: 22-2

130. (p. 241) Trey is studying German vocabulary for an upcoming test. He forms an image corresponding to an English word that sounds similar to the German word he is trying to learn. Trey is using the \_\_\_\_\_ technique. **keyword** 

APA Goal Outcome: 1.2, 4.4, 9.2, 9.3 Bloom's Taxonomy: Apply Difficulty: Medium Learning Outcome: 22-2

#### **Essay Questions**

131. (p. 216-217) Short-term memory is limited both in the amount of information it can hold at one time, and in how long it can hold information. Describe several strategies one might use to overcome the capacity and duration limitations of short-term memory. How might one use these strategies when studying for course materials? Provide concrete examples.

The answer should contain the following elements:

<u>Capacity</u>: Short-term memory can hold seven+/- two chunks of information. Increasing the size of the chunks by grouping or relating larger amounts of information may help expand the capacity of short-term memory. For example, grouping or chunking a list of twelve vocabulary words into one or two sentences may be helpful, even if the sentences are somewhat nonsensical. Even applying a simple rhythm to a list of items during rehearsal may serve as a chunking device. Creating a sentence, story, or song from a list of items is an oft-used study technique.

<u>Duration</u>: Items may be held in short-term memory for only 15 to 25 seconds. Rehearsal is the key to extending the shelf-life of items in short-term memory. Maintenance rehearsal serves to refresh information within short-term memory. Repeating a list of vocabulary words, stages in a sequence, or other ordered items is a frequent strategy immediately before a test. For example, one might repeat, "sensorimotor, preop, concrete op, formal op," as a developmental psychology test is being distributed. Elaborative rehearsal serves to facilitate the transfer of short-term memory items to longer-term memory. One might relate information one is learning to material one has learned in similar courses in the past. For example, one might consciously recall material from an educational psychology course when one is studying developmental psychology, or sociology material when one is preparing for a criminal justice test.

APA Goal Outcome: 1.2, 4.4, 9.2, 9.3 Bloom's Taxonomy: Apply Difficulty: Medium Learning Outcome: 20-2 132. (p. 214-219) Compare and contrast the capacity and duration of sensory and short-term memory. Describe the experimental and neuropsychological evidence supporting the distinction between short- and long-term memory.

The answer should include the following points:

<u>Sensory and short-term memory</u>: Both sensory and short-term memory hold information for brief periods of time. Information can last for only a second in visual sensory memory, or iconic memory. Auditory sensory memory, or echoic memory, can hold information for two or three seconds. Finally, the duration of short-term memory is about 15 to 25 seconds. However, while sensory memory holds everything experienced in a given sensory system, short-term memory is severely limited in its capacity, holding only about 7 items.

<u>Short- and long-term memory:</u> The distinction between short- and long-term memory is supported experimentally by the serial position effect, in which the ability to recall information in a list depends on where in the list an item appears. Items presented early in a list are well remembered. This is the primacy effect and reflects the fact that these early items have been encoded into long-term memory. Items presented toward the end of the list are also well remembered. This is called the recency effect; it reflects the fact that items near the end of the list are still in short-term memory when it is time to remember the list. The distinction between short- and long-term memory is supported by cases of brain damage in which short-term memory is impaired but long-term memory is preserved.

APA Goal Outcome: 1.2 Bloom's Taxonomy: Remember Difficulty: Easy Learning Outcome: 20-2 133. (p. 218) Describe working memory.

Working memory is defined as a set of active, temporary memory stores that actively manipulate and rehearse information. Working memory is thought to contain a central executive processor that is involved in reasoning and decision making. The central executive coordinates three distinct storage-and-rehearsal systems: the visual store, the verbal store, and the episodic buffer. The visual store specializes in visual and spatial information, whereas the verbal store holds and manipulates material relating to speech, words, and numbers. The episodic buffer contains information that represents episodes or events. Working memory permits us to keep information in an active state briefly so that we can do something with the information. Although working memory aids in the recall of information, it uses a significant amount of cognitive resources during its operation. In turn, this can make us less aware of our surroundings. Furthermore, stress can reduce the effectiveness of working memory by reducing its capacity.

APA Goal Outcome: 1.2 Bloom's Taxonomy: Remember Difficulty: Easy Learning Outcome: 20-2

134. (p. 219-220) Define and provide original examples from your own experience of each of the following types of long-term memory: declarative, procedural, episodic, and semantic.

The answer might include definitions and examples such as the following:

<u>Declarative memory</u>. Memory for factual information: names, dates, faces, and facts. Example: The knowledge that Al Gore was the vice president under President Bill Clinton.

<u>Procedural memory</u>. Memory for skills and habits. Example: Remembering how to skip stones.

<u>Episodic memory</u>: Memory for particular events. Example: Remembering the events that occurred the week one pledged a fraternity or sorority.

<u>Semantic memory</u>. Memory for general knowledge and world facts; memory for the rules of logic. Example: The knowledge that the two rivers flowing through Washington, DC, are the Potomac and the Anacostia.

APA Goal Outcome: 1.2, 4.2 Bloom's Taxonomy: Apply Difficulty: Easy Learning Outcome: 20-2 135. (p. 222-223) "The Search for the Engram." Has this research quest proven fruitful? Evaluate this question with respect to what is known regarding the brain basis of memory.

The engram is the physical brain trace corresponding to a memory. The search for the engram has been unsuccessful if one construes the quest as that for a single brain site corresponding to a particular memory. However, brain scientists have been successful in showing that many different regions of the brain contribute to memory. For example, the hippocampus in the limbic system contributes to the consolidation or stabilization of memories. Moreover, different parts of the hippocampus seem to specialize in different types of memories, such as spatial rather than verbal memories. The amygdala, another limbic system structure, is involved with the emotional aspects of memory. The sensory aspects of a memory appear to be processed in cortical areas associated with the appropriate sensory system, such as the occipital lobe for the visual aspects of memory.

At a neural level, certain neural pathways become more easily activated during learning, a process called long-term potentiation. Synaptic connections and dendritic branching also both become denser and more elaborate during learning.

APA Goal Outcome: 1.2 Bloom's Taxonomy: Understand Difficulty: Difficult Learning Outcome: 20-2 136. (p. 226-227) Discuss retrieval cues, recognition vs. recall, and levels of processing.

The answer should include the following definitions and examples:

<u>Retrieval cues</u>. Retrieval cues are stimuli that allow one to more easily recall long-term memories.

<u>Recall vs. recognition</u>. In recall, a specific piece of information must be recalled from long-term memory, such as the answer to a fill-in-the-blank question. In recognition, one is exposed to a piece of information and is asked whether he or she has been exposed to it before. An example is an alternative on a multiple-choice question.

<u>Levels-of-processing theory</u>. The levels-of-processing theory emphasizes the degree to which new material is mentally analyzed. It suggests that the amount of information processing that occurs when material is initially encountered is central in determining how much of the information is ultimately remembered. According to this approach, the depth of information processing during exposure to material—meaning the degree to which it is analyzed and considered—is critical; the greater the intensity of its initial processing, the more likely we are to remember it.

APA Goal Outcome: 1.2, 4.4, 9.2, 9.3 Bloom's Taxonomy: Apply Difficulty: Medium Learning Outcome: 21-1 137. (p. 228-229) Distinguish between explicit and implicit memory. How is implicit memory studied in the laboratory? How does implicit memory research inform the continuing debate in psychology regarding the unconscious determinants of behavior? In your answer, make explicit reference to behaviors that may have important personal and social consequences.

The answer should contain the following elements:

<u>Explicit vs. implicit memory</u>. Explicit memory is the conscious or deliberate recollection of information. Implicit memory is memory of which one is not consciously aware, but which can nevertheless impact performance and behavior.

Implicit memory is often studied experimentally through the use of priming procedures. Participants are first briefly exposed to a stimulus such as word or picture. The exposure is usually so brief or degraded that participants have no conscious awareness of it. After an interval ranging from minutes to months, participants are then exposed to an incomplete stimulus, such as a word fragment, and are asked to recognize or identify it. If the earlier exposure to the prime facilitates their identification of the stimulus, then they must have some implicit memory for it.

The existence of implicit memory suggests that the determinants of our behavior may often be unconscious. Implicit memory has been implicated, especially, in prejudice—people may consciously deny that they harbor prejudices and that their behavior is motivated by prejudice, but assessment of their implicit memories often suggests that they have biases of which they are unaware. These biases may drive discriminatory behavior.

APA Goal Outcome: 1.2, 4.2, 4.4 Bloom's Taxonomy: Remember Difficulty: Medium Learning Outcome: 21-1 138. (p. 229) What are flashbulb memories?

Flashbulb memories are memories related to a specific, important, or surprising event that are recalled easily and with vivid imagery. Flashbulb memories do not contain every detail of an original scene. Furthermore, the details recalled in flashbulb memories are often inaccurate, particular when they involve highly emotional events. Flashbulb memories illustrate a more general phenomenon about memory: Memories that are exceptional are more easily retrieved (although not necessarily accurately) than are those relating to events that are commonplace. The more distinctive a stimulus is, and the more personal relevance the event has, the more likely we are to recall it later. Even with a distinctive stimulus, however, we may not remember where the information came from. Source amnesia occurs when an individual has a memory for some material but cannot recall where he or she encountered it.

APA Goal Outcome: 1.2, 4.2, 4.4 Bloom's Taxonomy: Remember Difficulty: Easy Learning Outcome: 21-1 139. (p. 229-233) Our long-term memories are often inaccurate, even when we are convinced we are correctly remembering past events. Support this statement making specific reference to research on flashbulb, eyewitness, and false and repressed memories.

The answer should include the following elements:

<u>Flashbulb memories</u>—memories related to specific, surprising, and important events, such as the 9/11 attacks. Although vivid, flashbulb memories are usually incomplete and often inaccurate. Three-quarters of Americans recall seeing footage on Sept. 11 of two planes attacking the World Trade Center; in reality, no footage of the first plane was available until the next day. <u>Eyewitness memory</u>. Eyewitness memory is often inaccurate, even when eyewitnesses are highly confident regarding their recollections. Eyewitness memory is negatively impacted by the presence of a weapon displayed by the perpetrator. Leading questions can also influence eyewitness memory—Loftus and Palmer (1974) found that participants' estimates of the speed of a car shown colliding with another varied dramatically depending on whether the car was described as contacting or smashing into the other car. <u>Repressed/false memories</u>. While it is possible that disturbing memories may be pushed into the unconscious and remain hidden until they are triggered by

be pushed into the unconscious and remain hidden until they are triggered by some event, it is also possible that many of these memories are false, reflecting confusion about whether they were actually experienced, imagined, or heard second-hand.

APA Goal Outcome: 1.2, 3.1, 4.2, 4.4 Bloom's Taxonomy: Understand Difficulty: Medium Learning Outcome: 21-1 140. (p. 230-231) What are constructive processes in memory? Explain.

Constructive processes are processes in which memories are influenced by the meaning we give to events. When we retrieve information, then, the memory that is produced is affected not just by the direct prior experience we have had with the stimulus, but also by our guesses and inferences about its meaning. The notion that memory is based on constructive processes was first put forward by Frederic Bartlett, a British psychologist. He suggested that people tend to remember information in terms of schemas, organized bodies of information stored in memory that bias the way new information is interpreted, stored, and recalled. Because we use schemas to organize information, our memories often consist of a reconstruction of previous experience. Consequently, our schemas are based not only on the actual material to which people are exposed, but also on their understanding of the situation, their expectations about the situation, and their awareness of the motivations underlying the behavior of others.

APA Goal Outcome: 1.2, 5.5, 8.2 Bloom's Taxonomy: Remember Difficulty: Easy Learning Outcome: 21-1

141. (p. 233-234) To what extent does culture influence basic memory processes? Strategies for acquiring, rehearsing, and retrieving information? Provide as detailed a response as you can.

The answer should include the following ideas:

<u>Basic processes</u>. Culture probably has little effect on such basic properties of memory as the capacity and duration of sensory and short-term memory and the general organization of long-term memory.

<u>Strategies</u>. Culture influences the strategies people use to frame information at encoding, to rehearse and chunk information, and to retrieve information. The lack of a written language does not appear to encourage phenomenal memory abilities, contrary to popular opinion.

APA Goal Outcome: 1.2, 5.5, 8.2 Bloom's Taxonomy: Remember Difficulty: Easy Learning Outcome: 21-1 142. (p. 238) Distinguish between the decay, interference, and cue-dependent theories of forgetting. Provide an example of each.

The answer should include the following descriptions and examples:

<u>Decay</u> - the loss of information though nonuse. Memory traces fade away over time. Example: Suppose you glimpse the name of a medication on a prescription pad. Its representation in iconic memory will decay or fade rapidly unless you pay attention to it and transfer it to short- and then long-term memory.

<u>Interference</u> - information in memory disrupts the retrieval of other information. Example: The name of a new medication may make it difficult to recall the name of an older medication you once used to treat the same condition.

<u>Cue-dependent</u> - There are insufficient retrieval cues to rekindle information in memory. Example: You may be unable to recall the name of a medication when you are at home, away from the cues present in the doctor's office or pharmacy where you first learned the name.

APA Goal Outcome: 1.2, 4.4 Bloom's Taxonomy: Understand Difficulty: Easy Learning Outcome: 22-1

143. (p. 239) Describe the two sorts of interference that influence forgetting.

In proactive interference, information learned earlier disrupts the recall of newer material. In contrast, retroactive interference occurs when material that was learned later disrupts the retrieval of information that was learned earlier. One way to remember the difference between proactive and retroactive interference is to keep in mind that proactive interference progresses in time—the past interferes with the present. In contrast, retroactive interference retrogresses in time, working backward as the present interferes with the past.

APA Goal Outcome: 1.2, 4.2 Bloom's Taxonomy: Remember Difficulty: Medium Learning Outcome: 22-2 144. (p. 240) Review the three organic memory dysfunctions described in your text: Alzheimer's disease, anterograde and retrograde amnesia, and Korsakoff's syndrome. Provide as detailed a response as you can.

The answer should include the following points:

<u>Alzheimer's disease</u>. A dementing illness characterized by severe memory problems. The fourth leading cause of death among U.S. adults. The disease is progressive, escalating from mild, annoying memory losses to an inability to care for oneself. The disease is at least partly genetic and reflects a disorder in the production of a protein called beta amyloid, which helps maintain neural connections. Clumps and tangles build up, inflaming nerve cells and impairing communication in the brain.

<u>Anterograde/retrograde amnesia</u>. Amnesia refers to memory losses that occur in the absence of other intellectual deficits. Retrograde amnesia—loss of memory for events prior to trauma or injury. Retrograde amnesia is rare. The memory loss is usually selective and some of the memories tend to return over time. Anterograde amnesia—loss of memory for events following trauma or injury. One example is H.M., an epileptic whose hippocampus was destroyed during psychosurgery.

<u>Korsakoff's syndrome</u>. A memory deficit secondary to chronic, long-term alcohol abuse. Many intellectual abilities may be intact, but sufferers display hallucinations, memory deficits, and a tendency to repeat the same things over and over.

APA Goal Outcome: 1.2, 4.2 Bloom's Taxonomy: Remember Difficulty: Medium Learning Outcome: 22-2 145. (p. 241-242) Describe three of the techniques your text recommends for improving your memory. Suggest how the techniques you describe could be applied to improve your performance in one or more specific college courses.

Students' answers may vary.

<u>Keyword technique</u>. Useful in foreign language courses or in courses with unfamiliar, technical vocabulary. Think of a familiar English word that sounds like the foreign or technical word you are trying to learn. This is the keyword. Think of the referent of keyword interacting with the referent of the word you want to learn; a vivid, interactive mental image is best.

<u>Organizational cues</u>. In courses with extensive text reading, such as psychology, generate an organizing outline before you begin reading. This will assist deep processing and elaborative rehearsal.

<u>Effective note-taking</u>. Less is more. Think about the material in lecture courses, rather than mindlessly writing down and memorizing everything. Write down key points as you actively listen and think about the material.

<u>Rehearsal</u>. There is no such thing as overlearning. Studying and rehearsing past initial mastery aids long-term recall. Begin studying course material the day you acquire it, rather than only a day or two before a test. Continue studying and rehearse each day until the test.

APA Goal Outcome: 1.2, 4.4, 9.2, 9.3 Bloom's Taxonomy: Apply Difficulty: Medium Learning Outcome: 22-2