

Unit 5: Cognitive Psychology

Topic 5.1 – Introduction to Memory

1. What is the difference between memory and metacognition?
2. Describe the difference between semantic memory and episodic memory.
3. Identify the three different retention measures.
4. What is the difference between explicit memories and implicit memories?
5. Provide an example of explicit memories and implicit memories.
6. Describe parallel processing.
7. How does effortful processing differ from automatic processing?
8. Explain how an individual uses shallow processing to learn information.
9. Explain how an individual uses deep processing.
10. Create the three-stage model that was proposed by Richard Atkinson and Richard Shiffrin.
11. Compare and contrast iconic memory and echoic memory.
12. What is the difference between maintenance rehearsal and elaborative rehearsal?
13. Complete the table below.

Individual	Contributions
Noam Chomsky	
Hermann Ebbinghaus	

Topic 5.1 – Introduction to Memory (Continued)

13. Complete the table below. (Continued)

Individual	Contributions
Wolfgang Kohler	
Elizabeth Loftus	
George A. Miller	

Topic 5.2- Encoding

1. What encoding and how does it work with memory?

2. Complete the table below.

Type of Encoding	Description	Example
Visual		
Acoustic		
Tactile		
Organizational		
Elaborative		
Semantic		

3. Complete the table below.

Type of Practice	Description
Mass Practice	
Distributed practice (Spacing effect)	
Testing Effect	
Rote Rehearsal	
Chunking	
Mnemonic devices	

Topic 5.3- Storing

1. What memories make up the explicit memory system?
2. Identify which part of the brain processes explicit memories.
3. What memories make up unconscious memory or automatic memory?
4. Identify which part of the brain forms unconscious memories.
5. Explain how an individual's emotion impacts their memory.
6. What is an example of a flashbulb memory?
7. Draw the dual-track memory system.
8. Which parts of the memory system are located in the long-term memory?

Topic 5.4- Retrieving

1. What is the difference between recall and recognition?
2. Identify one way in which an individual can improve the retrieval process.
3. Explain what retrieval cues are and how they impact the retrieval process.
4. Provide an example of how you can use retrieval cues.
5. How do memory associations work?
6. Describe the encoding specificity principle.
7. Explain the difference between mood-congruent and state-dependent memories.
8. Describe the serial position effect and how our memory is affected by the order of the information.
9. How can distributed practice impact a person's ability to remember more information?

Topic 5.5- Forgetting and Memory Distortion

1. What part of the information-processing model can we see impact our ability to remember information?
2. What happens if there is an error with the encoding process and what happens to the encoding process as a person ages?
3. What happens to stored memories in the long-term memory if they are not used?
4. What is reconsolidation?
5. How can the misinformation effect impact a person's memory?
6. Describe Ebbinghaus' forgetting curve.
7. What does retrieval failure mean?
8. What is an example of a retrieval failure?
9. Describe the difference between proactive and retroactive interference.

10. Complete the table below.

Type of Amnesia	Description
Anterograde	
Retrograde	
Source	

Topic 5.6- Biological Bases of Memory

1. Describe what happens when you learn new information.
2. What is long-term potentiation?
3. How does glutamate and acetylcholine impact memory?
4. If there are low levels of acetylcholine what may happen?
5. Which areas of the brain work with explicit and implicit memory?
6. How does the amygdala impact memory?

Topic 5.7- Introduction to Thinking and Problem Solving

1. What is cognition, according to the APA?

2. Complete the table below.

Term	Description	Example
Prototype		
Anchors		
Informal reasoning		
Formal reasoning		

3. What is heuristics?

4. Identify an example of a person using heuristics.

5. Explain the difference between a schema and a mental set.

6. Explain when a person would use algorithmic problems solving and syllogism.

7. Describe diagnosis.

8. What is the difference between convergent thinking and divergent thinking?

9. What five components to creativity did Robert Sternberg identify?

Topic 5.8- Biases and Errors in Thinking

1. How can informal thinking lead to biases and errors in thinking?

2. Describe a cognitive bias.

3. Explain the difference between availability and representativeness heuristics.

4. What is the difference between confirmation and hindsight bias?

5. How can anchors cause you to have bias?

6. Explain how framing can lead to biases to form.

Topic 5.8- Biases and Errors in Thinking (Continued)

7. Complete the table below.

Term	Description
Fixedness	
Belief perseverance	
Illusory correlation	
Functional fixedness	

Topic 5.9- Introduction to Intelligence

1. Complete the table below.

Term	Description
Intelligence	
Fluid intelligence	
Crystallized intelligence	

2. Complete the table below.

Individual	Contributions
Charles Spearman	
Howard Gardner	
Robert Sternberg	
Alfred Binet	
Francis Galton	
Lewis Terman	
David Wechsler	

Topic 5.9- Introduction to Intelligence (Continued)

3. What is the stereotype threat?
4. Describe what the Flynn effect says about the average IQ score.
5. What is Savant syndrome?

Topic 5.10- Psychometric Principles and Intelligence Testing

1. Describe psychometric.
2. Explain why it is important for an intelligence test to be standardized.
3. How does the split-in-half method help check the reliability of an intelligence test?

4. Complete the table below.

Type of Validity	Description
Content	
Construct	
Criterion	
Predictive	

5. What type of curve can we use to visualize an intelligence test such as the Wechsler Adult Intelligence Scale?
6. What is the standard deviation of a standard intelligence test?
7. What does it mean if you are more than 2 standard deviations below or above the mean?

Topic 5.11- Components of Language and Language Acquisition

1. Complete the table below.

Term	Description	Example
Phonemes		
Morphemes		
Grammar		
Syntax		

