



## CLASS – XITH PSYCHOLOGY CHAPTER - 6 HUMAN MEMORY

1. Explain how the Atkinson-Shiffrin model describes the process of memory. Use examples to illustrate the model's three stages.

Answer: The Atkinson-Shiffrin model, also known as the multi-store model, proposes that memory consists of three stages: sensory memory, short-term memory (STM), and long term memory (LTM).  
☐ Sensory Memory: This is the initial stage where sensory information from the environment is briefly held, typically for less than a second. For example, the fleeting image you see when you quickly glance at a poster.  
☐ Short-Term Memory: If attention is given to sensory memory, it moves to STM, where information is temporarily held (for about 20-30 seconds) and can hold around  $7 \pm 2$  items. For example, memorizing a phone number long enough to dial it.  
☐ Long-Term Memory: With rehearsal or meaningful encoding, information moves to LTM, where it can be stored indefinitely. For example, remembering your home address from childhood.

2. Differentiate between declarative memory and procedural memory, and provide an example of each.

Answer: Declarative Memory: This type of memory involves facts and events that can be consciously recalled. It includes semantic memory (general knowledge) and episodic memory (personal experiences). For example, remembering the date of India's independence is declarative. Procedural Memory: This type of memory relates to skills and actions and does not require conscious recall. It's often automatic and is used for tasks like riding a bicycle.

For example, knowing how to type on a keyboard is procedural memory.

3. Describe any two techniques that can be used to improve memory retention. Explain how they work.

Answer: Chunking: This technique involves grouping pieces of information into larger, meaningful units, making it easier to remember. For example, breaking a long phone number into smaller parts (e.g., 123-456-7890) improves retention.  
☐ Mnemonics: This technique uses patterns, phrases, or imagery to remember information. For instance, using "PEMDAS" to remember the order of operations in math (Parentheses, Exponents, Multiplication, Division, Addition, Subtraction) helps with recall.

4. Explain the difference between proactive interference and retroactive interference in memory. Provide examples.

Answer: Proactive Interference: This occurs when old information interferes with the ability to learn or recall new information. For example, if you previously learned French and are now trying to learn Spanish, French words might come to mind and interfere with recalling Spanish vocabulary.  
☐

Retroactive Interference: This happens when new information interferes with the recall of old information. For example, if you've recently learned Spanish after

studying French, new Spanish words might make it harder to remember the French vocabulary.

5. How does retrieval failure cause forgetting? Give an example and discuss

strategies to overcome retrieval failure.

Answer: Retrieval failure happens when memory is available but inaccessible due to a lack of cues or context. For example, failing to remember a person's name even though you "know" it is an example of retrieval failure.

Strategies to Overcome Retrieval Failure: □ Use Cues: Associating the person with specific cues, such as where you met them, might trigger memory. □ Context Reinstatement: Mentally recreating the environment or situation where you initially learned the information can help. For instance, thinking back to a classroom where you learned a fact may help you recall it.

6. Question: Discuss the concept of "flashbulb memories" and why they are often more vivid than other types of memories. Give an example.

Answer: Flashbulb memories are vivid, detailed memories of emotionally significant events.

These memories are often more vivid because of the strong emotional impact, which enhances encoding and retention. For example, many people have vivid memories of where they were and what they were doing during major world events, such as a national disaster or the announcement of a historical event.

7. What is the role of rehearsal in transferring information from short-term memory to long-term memory? Explain the difference between maintenance and elaborative rehearsal.

Answer: Rehearsal plays a critical role in transferring information from short-term memory (STM) to long-term memory (LTM) by enhancing encoding. □ Maintenance Rehearsal: Involves simple repetition without adding meaning or context. This keeps information in STM but may not effectively move it to LTM. For example, repeating a phone number until you can dial it. □ Elaborative Rehearsal: Involves connecting new information with existing knowledge, which helps transfer it to LTM. For example, linking a historical date with significant events improves retention.

8. Explain the role of encoding specificity in memory retrieval. Give an example to support your answer.

Answer: Encoding specificity is the principle that memory retrieval is more effective when cues present during encoding are also available during recall. This suggests that memory is context-dependent. For example, if you study in a quiet room, you may recall information better in a quiet environment than in a noisy one, as the context acts as a retrieval cue.

9. Describe the process of reconstruction in memory. How does it influence eyewitness testimony?

Answer: Memory reconstruction is the process of piecing together an event or information, often influenced by personal beliefs, expectations, or suggestions. This can result in altered or distorted memories. In eyewitness testimony, reconstruction can lead to inaccuracies because witnesses may fill in gaps with assumptions or information acquired after the event, leading to false memories or altered details.