The following sample is for the learning objective: 
*Compare and contrast two models or theories of one cognitive process with reference to research studies.*

**What is the question asking for?**

* A clear outline of two models of one cognitive process. The cognitive process may be memory, perception, decision-making, language or thinking.

* Research is used to support the models as described. The research does not need to be outlined in a lot of detail, but understanding of the role of research in supporting the models should be apparent.

* Both similarities and differences of the two models should be clearly outlined.

**Sample response**

The theory of memory is studied scientifically and several models have been developed to help describe and potentially explain how memory works. Two models that attempt to describe how memory works are the Multi-Store Model of Memory, developed by Atkinson & Shiffrin (1968), and the Working Memory Model of Memory, developed by Baddeley & Hitch (1974).

The Multi-store model explains that all memory is taken in through our senses; this is called sensory input. This information enters our sensory memory, where if it is attended to, it will pass to short-term memory. If not attention is paid to it, it is displaced. Short-term memory is limited in duration and capacity. According to Miller, STM can hold only 7 plus or minus 2 pieces of information. Short-term memory lasts for six to twelve seconds. When information in the short-term memory is rehearsed, it enters the long-term memory store in a process called “encoding.” When we recall information, it is retrieved from LTM and moved back into STM.

The Working Memory Model by Baddeley & Hitch (1974) challenged the ideas of Atkinson & Shiffrin. They claimed that short-term memory has several components to it, as opposed to short-term memory being a single store, as described in the Multi-Store model. The central executive monitors the activity of three different stores; the phonological loop, the phonological store and the visuo-spatial sketchpad. The phonological loop stores information in verbal form, it is also known as the “inner voice.” The phonological store is the “inner ear” and it receives speech-based material. The visuo-spatial sketchpad is the visual memory and is called the...
“inner eye.” All of this information is organized by something called the “episodic buffer.” It brings all memory from all of the three components together to create a “whole” picture of the situation. This helps explain how and why we can multi-task. The last part of the model is identical to the Multi-store model; rehearsal of the short-term memory will enter the long-term memory.

Baddeley & Hitch supported their model by using a “dual task technique” – for example, repeating a set of digits while reading a text and answering questions. This shows that short-term memory is much more complex than the original MSM claimed.

There are many similarities between the two models. Both models state that we take in information through our senses. They also agree that this sensory information is short-term memory is limited in duration and capacity. Both models also discuss the role of rehearsal of information in the short-term memory in order to store it in the long-term memory. Both models have also been criticized for being hypothetical and not based on biological evidence. Additionally, neither of the models explains why memories become distorted.

The two models differ majorly in the way they describe short-term memory. The Multi-store model illustrates STM as a single store but the Working Memory Model on the contrary, explains short-term memory as having three components to it. The Multi-store model describes the loss of memory through decay, which the Working Memory model doesn’t. Furthermore, the working memory model explains short-term memory in some detail while Multi-Store model has just laid out general steps of memory.

It is clear that the Working Memory Model is an improvement on the original MSM. However, there are many similarities between the two.

What are the common problems for this question?

- A model of emotion is outlined. Emotion is not a cognitive process. It is an interaction between cognition and physiological processes.
- The models are not clearly described. The descriptions should be clear and concise.
- Drawings are used instead of clear descriptions of the models. Drawings are not assessed - but they can be referred to in order to support a well-written description.
- Only similarities OR differences are outlined.
- Although the two models are described in some detail, it is up to the reader to decide what the similarities and differences between the two models are.
### Knowledge and comprehension

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<thead>
<tr>
<th>Marks</th>
<th>Level descriptor</th>
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<tbody>
<tr>
<td>6</td>
<td>The answer demonstrates limited knowledge and understanding relevant to the question or uses relevant psychological research to limited effect in the response.</td>
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### Critical thinking: application, evaluation and synthesis

<table>
<thead>
<tr>
<th>Marks</th>
<th>Level descriptor</th>
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<tr>
<td>6</td>
<td>The answer offers appropriate but limited evidence of critical thinking or offers evidence of critical thinking that is only implicitly linked to the requirements of the question.</td>
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### Organization

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<tr>
<th>Marks</th>
<th>Level descriptor</th>
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<tr>
<td>3</td>
<td>The answer is well organized, well developed and focused on the question</td>
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Total marks: 15/22

Predicted Score: 6