This is a Class 2 exam

Lebanon Evangelical School
for Boys and Girls
Loueizeh - Baabda

Stage Exam 04

12FEB2024

Do NOT write in this box. Your MARK will be placed here.

Subject :	A Level : Psychology 1
Class :	11A and 12A
Teacher :	Ms. Lea Choueifati
Duration :	1 hour 15 minutes

Answer all questions on a LINED paper.

Your name :		*Time taken to complete exam*
Your Class :		
Exam Room :		
How many sheets, including cover sheet :		

- Do not open this paper until the teacher in charge instructs you to do so.
- The most important thing to remember in taking an exam is NEVER PANIC.
- If you are caught cheating in this exam, you will be awarded zero for ALL exams that are taken on this day.

1. Lei investigated the effect of word length on short-term memory capacity. She used a volunteer sampling technique to gather 20 participants. Lei allocated her participants randomly to one of two conditions.

- Condition A: participants are given 14 monosyllabic words (words with only one syllable such as cat, tub, or red) to learn in 30 seconds.
- Condition B: participants are given 14 polysyllabic words (words with more than one syllable such as elephant, happiness, or carpet) to learn in 30 seconds.

Lei recorded the number of words recalled correctly by participants.

a. State the fully operationalised independent variable (IV) and dependent variable (DV) in Lei's investigation. (2)

2. In your studies of cognitive psychology, you will have learned about one of the following contemporary studies in detail:

- Schmolck et al. (2002)
- Steyvers and Hemmer (2012)
- Sebastián and Hernández-Gil (2012).
    - Evaluate your chosen contemporary study. (8)

3. In cognitive psychology, you will have learned about Baddley (1996b).

a. Explain one strength of Baddley's (1996b) study in terms of **reliability.** (2)
b. Explain one weakness of Baddley's (1996b) study in terms of **validity.** (2)

4. During a psychology lesson, Saima was asked to recall the contents of her history classroom. Some of the items she recalled included; 15 tables, a clock, paper, and a calendar. However, her history classroom did not contain a clock or a calendar.

a. Using reconstructive memory, describe why Saima incorrectly recalled some items from her history classroom. (2)
b. Explain **one** strength and **one** weakness of reconstructive memory as anexplanation of Saima's recall of the items from her history classroom. (4)

5. Becca is trying to memorise the name and location of different organs in the human body for a Biology test.

a. Describe **one** feature of the working memory model (Baddeley and Hitch, 1974) that could help Becca revise effectively for her test. (2)

6. a. Using an example, describe what is meant by semantic memory as proposed by Tulving (1972). (2)

b. Explain **one** strength of Tulving's (1972) explanation of long-term memory. (2)

7. Atkinson and Shiffrin (1968) explained memory using the multi-store model

a. Give **two** features of the 'short-term store' as it is used in the multi-store model of memory. (2)
b. Explain **two** weaknesses of the multi-store model as an explanation of human memory. (4)

1. a. Independent Variable (IV): whether the words are monosyllabic or polysyllabic (1)
   Dependent Variable (DV): number of words recalled correctly from the list of 14. (1)

2. Shmolck et. al (2002)

The sample included 8 male controls and 1 female, 5 male participants with brain damage. (1) All participants were given nine tests based on the same line drawings of 24 animals and 24 objects which could further be assigned to one of 8 categories; e.g. 6 birds.(1) For tests 8 and 9, the number of correct statements and incorrect statements were calculated, then they assigned a quality score (0-4) to each definition. (1) Schmolck et al. (2002) concluded that deficits in semantic knowledge is related to damage in anterolateral temporal cortex and not medial temporal lobe structures. (1) Brain damaged patients are not representative of the wider population so findings about the role of brain regions in semantic knowledge may not be generalizable to all human memory. (1) The procedure was standardized with all participants seeing the same drawings which controls for variables increasing the reliability of the findings about semantic memory. (1) Quantitative data is an objective measure of memory performance which reduces subjectivity in the interpretation of the data about memory functioning. (1) They were unable to test semantic memory prior to brain damage so the conclusions do not consider individual differences in memory as there was no baseline measure before brain damage.(1)

Steyvers and Hemmer (2012)

A random sample of 22 participants for the verbal cue condition and 25 participants for the visual cue condition was recruited from an experimental participant pool at the University of California. (1) A verbal cue condition with no image was used where participants had to list objects that came to mind that they expected to see in a given scene, such as a kitchen, or hotel room. (1) There was a separate group in the experimental condition who made perceptual judgements based on visual cues recalling what they could see. (1) They found that participants had strong prior expectations from schemas that are in line with occurrences of the objects in natural environments. (1) The sample may only be representative of university students in a western society and may not be generalizable to the way prior expectation affects schema cross-culturally. (1) The verbal cue test for the prior expectations of participants gave Steyvers and Hemmer (2012) data to compare to the findings of the experimental condition increasing reliability.(1)Using an independent measures design means that the impact of individual differences may have affected the results about prior expectations, reducing the validity of the findings. (1) The study is supported by research from Bartlett (1932) who also found that prior expectation and schema affected the recall of information from the War of the Ghosts' story.(1)

Sebastian & Hernandez Gil (2012)

- The sample was 570 volunteer, or volunteered, children aged between 5 and 17 years old from a range of schools, such as public and private, in Madrid.(1)Participants were divided into five different age groups and then each child was read the digits independently.(1)Each participant was read increasing sequences of digits to recall in the correct order with digit span recorded as the maximum digits recalled in the correct order without error.SEP (1) Digit span in the Spanish population is significantly shorter thanSEP Anglo-Saxon culture, probably due to the word length effect associated with digits. (1) The sample is only representative of Spanish speaking children in the Madrid region, so it cannot be generalised beyond this population to speakers of other languages. (1) The use of cross-sectional groups allowed them to track the

development of digit span over time without the extended duration of conducting a longitudinal study. (1) Digit sequence recall is artificial and has limited task validity as children are unlikely to learn random sequences of numbers in their day-to-day experiences. (1) The study can be replicated to test verbal digit span across cultures to understand cross-cultural developmental and individual differences in phonological processing in working memory.(1)

3. a. Standardised controls were used, such as each participant being given the same amount of time to write out the 10-word sequence (1) which means that the task can be replicated to retest the results to assess the influence of semantic and acoustic words on long term memory (1).

   b. The task of recalling word lists to test memory is an artificial task and lacks validity (1) as learning lists of words in a sequential order in our daily life is not a true representation of how memory functions (1).

4. a. Saima will have an existing schema for a classroom that included a clock based on her prior knowledge of classrooms she has been taught in (1), so when recalling her History classroom she filled in gaps in her recall with expected items based on her schema therefore believing a clock was present in the room (1).

   b. Strength: Brewer and Treyens 1981) supports why Saima recalled the calendar in the classroom, finding that an 'office schema' significantly affected the accuracy of participant recall for objects in an office (1), therefore when Saima made mistakes in her recall of the calendar from the History classroom it demonstrates that she had actively reconstructed her memory based on her prior expectations of a classroom (1).
   Weakness: Saima's errors in recall could be a result of not rehearsing all the items in her History classroom to memorise them as she was paying attention to the teacher not the room rather than her schema for a classroom (1). The multi-store model of memory (Atkinson and Shiffrin, 1968) suggests Saima needs to use rehearsal to transfer information from her STM to her LTM or it would be lost, so mistakes in recall are due to items not being stored and not her prior expectations (1).

5. Becca can read the name and location of each organ and use the phonological loop to hold the information in the phonological store (1) while using repetition in the articulatory rehearsal loop until the organ names and locations are transferred to long-term memory (1).
6. a. Semantic memory is the long term memory for factual information (1) for example knowing that Paris is the capital city of France (1).

   b. There is supporting evidence that LTM has two distinct stores where episodic memories are stored separately to semantic memories (1) from Ostergaard (1987) where a boy with brain damage could not process episodic memories, but could make academic progress, showing the two stores are separate (1).

7.a. The short-term store has a capacity of 5-9 items (1) and a limited duration of approximately 15-30 seconds (1).

b. The multi-store model is incomplete as it does not account for the storage of procedural memory (1). HM was unaware that he was able to learn new procedural skills with practice showing long-term memory has a procedural store (1). The short-term memory store is an oversimplified and passive system (1) ignoring active processes such as problem solving so explanations like working memory may be more credible than multi-store model (1).