- 1. Capacity is the ability to absorb, retain and contain information. Capacity refers to the amount of information a certain person can store and the ability to recall this information.
- 2. Duration refers to how long an individual can hold a certain amount of information for. This could refer to how many individual digits you can remember or how many groups of items you can recall.
- 3. Encoding refers to transforming one type of information into another. Encoding in psychology can refer to the process in which one stimulus which could be visual, acoustic or semantic is encoded into a certain memory which could be long term memory or short term memory.
- 4. The capacity of the short term memory was studied by two famous psychologists, Jacob and Miller. Jacob's study in to the capacity of the STM found that the average STM span was between 5 and 9 individual items which is a very limited storage capacity. A study by Miller agreed with Jacob in the sense he agreed that the capacity of the STM is very limited however he believed that our STM span is determined on how many chunks of information we remember rather than the number of individual letters or numbers which Jacob believed. Miller found that participants can remember between 5 and 9 chunks of information at any one time. Miller believed that chunks were the basic unit of the STM, he called this "Miller's chunking theory" and disagreed with "Jacobs digit span theory" which he believed was a vague look on the Short term memory.
- 5. The duration of the short term memory was studied by Peterson and Peterson. The study's findings showed that information in the STM remains their for a very limited amount of time they concluded that it only stays in the STM for less than 18 seconds if verbal rehearsal in prevented. Peterson and Peterson's experiment consisted of presenting participants with a consonant trigram and after preventing rehearsal for a selection of different times. Peterson and Peterson found that as the time intervals became longer until after 18 seconds participants could remember fewer than 10% of information. They concluded that information disappears or decays very rapidly from the STM when rehearsal is prevented.
- 6. The encoding of the short term memory was studied by many psychologists. Baddeley found that LTM primarily makes use of semantic coding. Baddeley knew this because he saw in his research that it was difficult for participants to recall information that was semantically similar. This evidence is also backed up by and experiment made by Conrad found that participants found it hard to remember strings of acoustically similar words in the correct order compared to strings of acoustically dissimilar words. Other research

was also used to back up the point that the LTM and the STM encode differently, one of these was a study by Wickelgren and Baddeley who found that when storing items into the STM if a participant is given information consisting of acoustically similar and dissimilar words and semantically similar and dissimilar words. They found that the participants found it harder to store and recall semantic words compared to acoustic words which had no affect.

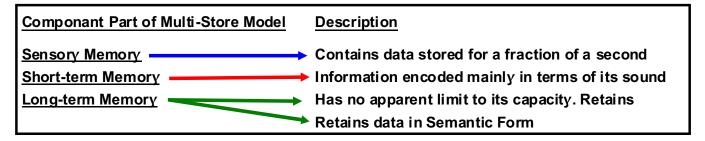
- 7. Bahrick's studies into the duration into the long term memory found that people can remember certain types of information for almost a lifetime. Bahrick found that information can be stored for over 47 years if sparked by a stimulus. Bahrick set out this investigation using graduates from a particular high school in America over a 50 year period. A group of participants were given a group of names and asked to select the name that matched the person. The other group were only asked to name the person with no visual stimulus. Bahrick found that even by the age of 47 those participants were 60% accurate in their answers. Where as those who were not given the visual stimulus, in the over 47 groups only remembered 20% of the information. Bahrick's research showed that certain information can be remembered for almost a lifetime if presented with a recognition task and a visual stimulus. This showed that the duration of the long term memory can last a lifetime.
- 8. The encoding of the long term memory was studied by Wickelgren and Baddeley who found that when storing items into the STM, if a participant is given information consisting of acoustically similar and dissimilar words and semantically similar and dissimilar words. They found that the participants found it harder to store and recall semantic words compared to acoustic words which had no affect. This study by Baddeley showed that LTM primarily makes use of semantic coding as shown by the difficulties that participants had in recalling the correct order of words that had a similar meaning. However Baddeley still took into account that we still use other forms of encoding to store in our long term memory. In conclusion this study showed that we use semantic coding when storing in the long term memory.
 - 9. Sperling researched into sensory memory in which he found that the sensory memory has a very short duration and can only retain information for a very brief time in fact Sperling stated that the time taken would be in mili-seconds. Sperling from his research also concluded that the sensory memory is a relatively unprocessed form. Sperling also stated that we cannot control what enters our sensory memory, but we do actively select

certain bits and parts of information for transmission to the short term memory by paying attention to certain subjects of stimuli however a lot of information that enters out sensory memory is lost. Sperling also design three separate sensory stores that he believed were for the different senses. Sperling came up with these conclusions after coming up with two separate experiments; the second was an improvement on the first looking deeper into the sensory memory.

10. SPECIMEN PAPER

	Short Term Memory (STM)	Long Term Memory (LTM)
CAPACITY	Seconds	Unlimited
<u>DURATION</u>	7+/-2 items	Up to a life time
ENCODING	Mainly Acoustic	Mainly Semantic

11. Question 1



12. Information is transferred from the sensory memory to the short term memory according to the multi-store model by paying attention to a certain subject through the different sensory stores which are Iconic, Echoic and Haptic. When an individual experiences a stimulus on one of their senses or sensory stores the information is automatically processes from the sensory memory to the short-term memory where if repeated could later be sent to the long term memory if not the information then decays once reaching the short-term memory.