1. The conveyor belt in the “grading apples” metaphor used to describe the classic theory of memory in the lecture represents
   a. STS
   b. LTS
   c. sensory memory
   d. attention

2. The BCPVTC experiment that tested memory span by Conrad (1964) examined
   a. capacity of STS
   b. transfer from STS to LTS
   c. forgetting rate of STS
   d. chunking in STS
   e. coding in STS

3. Baddeley & Hitch’s rugby recall experiment found a recency effect in the recall of details of rugby games. This could not be attributed to the recent information being in STS because all of the games happened several days before the recall. What could the recency effect be due to?
   a. different levels of processing for the more recent games
   b. retroactive interference (RI)
   c. proactive interference (PI)
   d. a difference in kind of rehearsal; more elaborative rehearsal for the more recent games

4. The modern view of the classic theory and the levels of processing theory states that transfer to LTS is
   a. the permanent activation of a network
   b. the temporary activation of a network
   c. the creation of new structure in a network
   d. none of the above

5. What produces the recency effect in immediate free recall according to the classic theory?
   a. recall from sensory memory
   b. recall from LTS
   c. recall from STS
   d. transfer from STS to LTS

6. Which of the following was offered by Craik and Lockhart as a criticism of the multi-store approach to memory (what we called the classic theory)?
a. Estimates of STS capacity vary from experiment to experiment
b. The classic theory does not explain the effect of cues on retrieval from LTS
c. The classic theory does not explain the negative recency effect in final free recall
d. b and c
e. all of the above were criticisms offered by C & L

7. If a subject took 25 trials to learn a list of 20 CVCs and 15 trials to relearn the list one week later, what is this subject’s percentages savings? __________________________

8. In a yes-no recognition experiment in which the test list had 100 old words and 200 new words, if a subject has 50 false alarms and 10 hits, how many correct rejections are there? __________________________

9. In Minimi and Dalenbach’s cockroach experiment the general conclusion was that forgetting (in roaches)
   a. is due to decay
   b. is due to retrieval failure
   c. is due to loss created by new learning
   d. b or c—we can’t tell

10. Which of the following is an empirical finding that helped to discredit the single-process threshold model as an account of the general superiority of recognition memory over recall memory? (The single-process single-process threshold model thought that recall and recognition as two ways of measuring the same thing.)
   a. recognition for high frequency (common) words is better than for low frequency words: the reverse is true for recall
   b. recognition is better when learning is incidental (no memory test is expected) than when it is intentional (a test is expected); the reverse is true for recall
   c. for verbal stimuli, recognition accuracy (using either yes-no and forced-choice procedures) is substantially higher than is recall accuracy
   d. subjects expecting a recall test, but given a recognition test, perform better than subjects expecting a recognition test, but given a recall test

11. Your text discusses a paper by Underwood in which he examined the results of a large number of studies that used the paired-associate paradigm to investigate memory for nonsense syllables. One of the Underwood’s observations was that recall performance decreases as the number of lists previously learned increases. This observation supports the concept of
   a. positive transfer effects
   b. retroactive interference (RI)
   c. proactive interference (PI)
   d. both b and c
   e. all of the above
12. Loftus’s stop-sign yield-sign experiment included a condition in which there was no misleading question asked. What was the result in this condition? (Assume that a stop sign was presented in the slides)

a. Subjects picked the yield sign more than the stop sign
b. Subjects picked the stop sign more than the yield sign
c. Subjects picked both signs equally often
d. There was no forced-choice recognition test in this condition because it was the control condition

13. Darley et al found that marijuana intoxication hurts transfer from STS to LTS. Their experiment obtained serial position curves representing recall tests performed while the subjects were under the influence of the drug or placebo. There were two tests: (1) Final free recall for items learned before the subjects took the drug or placebo and (2) Immediate free recall for new lists.

Draw serial position curves for (1) and (2) for both the drug and placebo conditions. Make sure you label the x and y axes and label carefully which curves are for the drug and which are for the placebo. (3 pts)

(1) (2)

14. Match the experiment with the theory or hypothesis that it goes with (5 points). Write the appropriate number from the “theories and hypotheses” opposite the experiments (immediately below). A theory or hypothesis may be used more than once and some may not be used at all.

Experiments
A. Baddeley, Thomson & Buchanan compared memory span for long and short words
B. Craik & Tulvig found that recognition performance depended on orienting tasks (does this word rhyme with “dog”?)
C. McCloskey and Zaragoza examined the effect of misleading information on forced-choice recognition performance (Hammer vs. wrench hammer vs. screwdriver)
D. Fisher & Craik examined the effect of cues at time of study and time of retrieval in cued recall (e.g. hail-PAIL)
E. Mazuryk looked at final free recall in a condition in which subjects engaged in elaborative rehearsal for the last four items

Theories and Hypotheses: (1) Support for Levels of Processing (2) Critical of Levels of Processing (3) Support for Duplex Hypothesis (4) Support for Number Hypothesis for STS (5) Critical of Number Hypothesis of STS (6) Support for acoustic/articulatory code of STS (7) Critical of acoustical/articulatory code for STS (8) Support for Decay Theory
15. Your text discusses Sperling’s (1960) study of the duration of iconic memory, in which he presented subjects with brief (50 msec) flashes of a matrix of 12 letters and obtained partial and whole reports at various cue delays. The following alternatives each describes possible performance outcomes for partial report (PR) versus whole report (WR) at each of three cue delays. For each alternative, the first comparison always refers to a delay of zero alternative, the first comparison always refers to a delay of zero seconds, the second a delay of one second, and the third a delay of greater than one second. Which of the following best describes the results obtained by Sperling as described in your text?

a. PR > WR, PR = WR, PR < WR  
b. PR > WR, PR = WR, PR = WR  
c. PR < WR, PR < WR, PR < WR  
d. PR < WR, PR = WR, PR > WR

16. One important problem in iconic memory research concerns the locus of visual persistence in the nervous system. Your text discusses one investigation of this problem that used stimuli (Black and white striped patterns) for which visual persistence decreased when subjects were adapted to a given stimulus by repeated presentations of that stimulus. When a single eye was adapted, researchers found that the adaption effects transferred to the other, unadapted eye (that is, the icon in the unadapted eye was also of a shorter duration relative to the preadaptation icon in the original eye). These findings suggest that a visual persistence is located

a. centrally in the nervous system  
b. peripherally in the nervous system  
c. in the retina, including both rods and cones  
d. in the retina, but in the rods only.

17. The evidence from studies of iconic and echoic memory suggest that the content of these sensory stores is

a. postcategorical for both iconic and echoic  
b. postcategorical for iconic, precategorical for echoic  
c. precategorical for echoic, postcategorical for iconic  
d. precategorical for both iconic and echoic

18. Studies of auditory sensory store have shown that, when a list of stimuli (for example letters) is read one at a time, subjects’ recall of the letters shows a serial position effect: the number of recall errors increases from the lowest serial position up to the last item or two and then sharply decreases. The “suffix effect” refers to the reduction or elimination of this serial position effect, and it can be achieved by presenting another stimulus within two second of the end of the stimulus list. Which of the following types of stimuli would
produce the strongest suffix effect for a list of letters?

a. a buzzer
b. a word presented in a voice different than the one in which the letters were presented
c. a word presented in the same voice as the one in which the letters were presented
d. a word presented in a different location than the one in which the letters were presented

19. According to Broadbent’s filter theory of selective attention, a “channel” is defined by

a. the content of a message
b. the physical characteristics of a message
c. the sensory modality of a message
d. both a and b

20. According to Kahneman’s theory of attentional allocation, in any given moment there are a number of cognitive activities to which attentional resources could allocated. Which of the following factors determines how attention is allocated?

a. the capacity demands of the activities
b. the individual’s intentions
c. the individual’s long-term tendencies or inclinations
d. all of the above

21. In a study of serial position effects in immediate free recall, Murdock manipulated two variables: list length and presentation rate. His major finding was that

a. list length and presentation rate both affected the primacy effect, but neither affected the recency effect
b. list length and presentation rate both affected the recency effect, but neither affected the primacy effect
c. list length affected only the primacy effect, presentation rate affected only the recency effect
d. list length affected only the recency effect, presentation rate affected only the primacy effect

22. In the prototypical Sternberg memory scanning experiment, the subject is presented with a set of memory items followed by a probe stimulus, and the task is to decide whether the probe is a member of the memory set. The usual findings are that both “yes” and “no” responses increase linearly with the size of the memory set and that the two response types have the same rate of increase. Which of the following scanning processes did Sternberg believes was going on?
a. serial self-terminating search in which the subject compares the probe to each digit one at a time and stops searching the memory set when a probe is found  
b. serial exhaustive search in which the subject compares the probe to each digit one at a time and stops searching the memory set only when the entire set has been searched  
c. parallel processing in which the subject compares the probe simultaneously to all digits in the memory set  
d. a and b  
e. all of the above  

23. Your text and the lectures discusses a number of studies that investigated how information is coded in short-term storage. When one combines the findings across these studies, which of the following codes is the least likely code for short-term storage?  
   a. semantic code  
   b. articulatory code  
   c. acoustic code  
   d. visual code  
   e. both b and c  

24. When subjects are asked to recall a list of items after a distraction task (for example, counting backwards by threes for 20 seconds), their recall declines with successive trials. This decline in recall performance can be reversed and a substantial improvement shown simply by making an obvious change in the category from which the items are selected. Wickens explained this phenomenon in terms of  
   a. release from retroactive interference  
   b. release from proactive interference  
   c. a change in the level of processing of the items  
   d. the probability that the items remain in short-term store  
   e. both c and d are true as they are really the same explanation  

25. Your text discussed a study by Jenkins and Dallenbach in which it was found that subjects who slept after learning a list of CVC’s later recalled more items than subjects who engaged in normal activities after learning. To which of the following did they attribute their results?  
   a. a difference in decay between the two groups  
   b. a difference in proactive interference between the two groups  
   c. a difference in the encoding of the CVC’s between the two group  
   d. all of the above  
   e. none of the above  

26. The two-factor theory of interference claims that both response competition and unlearning contribute to interference. This was developed in the work of Melton and Irwin (1940) discussed in the text. Which of the following is a claim of the two-factor theory of interference?
27. Based on your knowledge of organization in free recall (from the text), which of the following is true about the effects of interitem associations? (Interitem associative strength refers to the extent to which words on a list are associates of each other).

a. recall scores are higher for lists with low interitem associative strength than for those with high interitem associative strength
b. recall scores are highest for lists with intermediate interitem associative strength compared to those with either zero or high interitem associative strengths
c. recall scores are lowest for lists with intermediate interitem associative strength compared to those with either zero or high interitem associative strengths
d. recall scores are higher for lists with high interitem associative strength than for those with low interitem associative strength
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