Self-Assessment 5. Learning & Memory 17 APR 2014

For each numbered question or figure item, match the best answer.

1. This question has been deleted by the instructor

2-6. Theories of Working Memory
(a) imagination (b) memory field (c) phonological loop (d) short-term memory

2. 11th c. Avicenna, inner sense.
3. 1968 Atkinson-Shiffrin, gateway to long-term memory.
6. 1982 Kojima-Goldman-Rakic, dorsolateral prefrontal cortex neurons.

7-9. Dorsolateral Prefrontal Cortex (a) BA4 (b) BA9 (c) BA17 (d) BA46
7. Area important newly learned or externally cued behavior
8. Area important in well learned or internally cued behavior.
9. Area important in visual object recognition.

10-13. Cortex-Striatum-Pallidum
(a) caudoputamen (b) nucleus accumbens
(c) lateral septal complex (d) amygdala central nucleus

14-17. Kluver-Bucy Syndrome (True/False)
15. Animals more aggressive, patients more belligerent.
16. Patients more reliant on visual and auditory cues.
17. Treated surgically by removing both amygdalae.

18-23. Autonomic Nervous System (a) sympathetic (b) parasympathetic (c) both (d) neither
18. Dilates the pupils.
20. Relaxes airways.
21. Slows the heart rate.
22. Stimulates digestion.
23. Relaxes the bladder.

24-27. Learned Fear (a) CR (b) CS (c) UR (d) US
24. Light or tone.
25. Electric shock.
26. Piloerection after electric shock.
27. Freezing to light after light-shock pairing.

28-33. Urbach-Wiethe Disease (True/False)
29. Patients aware CS predicts US.
30. Patients fail to recognize fear in facial expressions.
31. Patients recognize familiar faces.
32. Patients have larger fear-potentiated startle reflex.
33. Autosomal recessive mutation in ECM1.

34-39. Limbic Cortex
(a) amygdala (b) cingulate (c) entorhinal
(d) hippocampus (e) olfactory (f) orbital

40-47. Hippocampal Area
(a) CA1 (b) CA3 (c) granule neuron
(d) fornix (e) perforant pathway
(f) dentate gyrus (g) hippocampus (h) subiculum

48. Entorhinal cortex neurons are tuned to
(a) grid (b) heading (c) place

49. HM was deficient in
(a) mirror drawing (b) conversation (c) new episodic memories (d) working memory

50. Hippocampal function test
(a) card recency (b) delayed response (b) Morris water maze (d) self-order recall

51. Bonus. Who is this famous patient?
(a) William Scoville (1906-1984)
(b) Brenda Milner (b1918)
(c) Henry Molaison (1926-2008)
(d) Joaquin Fuster (b1930)
(e) Patricia Goldman-Rakic (1937-2003)