

Test Bank for Memory 3rd Baddeley

1 Which approach is particularly well suited to providing a clinical overview of a condition, but may yield ambiguous answers to theoretical questions about particular processes if the condition is relatively nonspecific?

- (A) Randomized clinical trial
- (B) Computer modeling
- (C) Selective lesioning
- (D) Group study
- (E) Transcranial-magnetic stimulation

Answer: (D) Group study

2 The more severe the accident leading to TBI, the:

- (A) Longer the expected period of unconsciousness
- (B) Poorer the chance of a good recovery
- (C) Greater the memory disturbance
- (D) Worse the prognosis
- (E) All of these

Answer: (E) All of these

3 An especially powerful way of ruling out the possibility that a deficit in one task represents a simple disparity in difficulty with another task, for which performance is preserved, is the:

- (A) Occam's razor
- (B) Case study
- (C) Single dissociation
- (D) Double dissociation
- (E) Counterfactual

Answer: (D) Double dissociation

4 The process of carrying out a large set of experiments focused on addressing the same theoretical question, but using different methods and participant groups is called:

- (A) Exact replication
- (B) Divergence
- (C) Converging operations
- (D) Bootstrapping
- (E) Default mode

Answer: (C) Converging operations

5 Rotating an X-ray detector around a person's head to form a three-dimensional representation of their brain is an example of:

- (A) Intracranial cellular recording
- (B) Magnetic resonance imaging

- (C) Electrocardiography
- (D) Electroencephalography
- (E) Computerized tomography

Answer: (E) Computerized tomography

6 MRI can distinguish various structures in the brain (e.g. white matter from gray matter) by doing which of the following?

- (A) Staining the cells differently
- (B) Implanting electrodes at different depths
- (C) Directing ionizing radiation at the brain from different angles
- (D) Varying the frequency of the radio pulse
- (E) Observing infrared reflectance

Answer: (D) Varying the frequency of the radio pulse

7 Using implanted electrodes to invasively record directly from the brain of patients is limited to brain regions directly relevant to:

- (A) The medial temporal lobe
- (B) Memory regions
- (C) Clinical treatment
- (D) Theoretical interest of basic research
- (E) The surface of the brain

Answer: (C) Clinical treatment

8 Delivering TMS via which procedure has been known to lead to a temporary "lesion" lasting many minutes?

- (A) Repetitive
- (B) Single pulse
- (C) Radioactive tracing
- (D) Deep-brain stimulation
- (E) Intravenous drugs

Answer: (A) Repetitive

9 EEG involves recording which of the following across the scalp?

- (A) Neurotransmitter release
- (B) Fluctuating voltages
- (C) Changes in the oxygenation of blood
- (D) Structural bone density
- (E) Tiny magnetic fields generated by groups of neurons and picked up by SQUIDs

Answer: (B) Fluctuating voltages

10 Event-related potentials typically can be extracted by doing which of the following?

- (A) Taking a blood sample
- (B) Looking at the power of different frequency bands during a task
- (C) Averaging over many repetitions of the same cognitive activity
- (D) Brain surgery to remove the ERPs
- (E) Injecting a tracer

Answer: (C) Averaging over many repetitions of the same cognitive activity

11 Relative to ERP, MEG is:

- (A) More expensive
- (B) Less subject to distortion from the skull
- (C) Able to potentially offer better spatial localization
- (D) More sensitive to activity in the sulci
- (E) All of these

Answer: (E) All of these

12 Currently, the best temporal resolution of ERP and MEG is on the order of:

- (A) Milliseconds
- (B) Seconds
- (C) Minutes
- (D) Picoseconds
- (E) Hours

Answer: (A) Milliseconds

13 The first functional neuroimaging method developed that relies on the assumption that brain activity can be measured indirectly through its metabolism is:

- (A) fMRI
- (B) PET
- (C) MEG
- (D) CT
- (E) EEG

Answer: (B) PET

14 The oxygen in the blood is most precisely carried by which of the following?

- (A) Neurotransmitters
- (B) Monocytes
- (C) Radioactive reagents
- (D) Electrical impulses
- (E) Hemoglobin

Answer: (E) Hemoglobin

15 Generally, the peak of a brain response to a stimulus will occur at which delay?

- (A) 5-10 milliseconds
- (B) 1-2 seconds
- (C) 5-6 seconds
- (D) 2 minutes
- (E) Depends on which response is being measured

Answer: (E) Depends on which response is being measured

16 Finding an appropriate cognitive baseline condition is particularly crucial in which of the following basic fMRI procedure?

- (A) Inception
- (B) Tractography
- (C) Granger causality
- (D) Effective connectivity
- (E) Subtraction method

Answer: (E) Subtraction method

17 MVPA stands for which of the following?

- (A) Multi-view photon array
- (B) Multi-voxel pattern analysis
- (C) Myelin vector product arrangement
- (D) Minute vacillation prototype analysis
- (E) Measured vasopressin accumulation

Answer: (B) Multi-voxel pattern analysis

18 After acquiring a statistical representation of brain activity when a person is looking at a car, a researcher might try to detect whether a participant is thinking of a car, through the use of a(n):

- (A) Pattern classifier
- (B) Cochlear implant
- (C) Multi-volume posterior assumption
- (D) Artifact rejection procedure
- (E) Vocoder

Answer: (A) Pattern classifier

19 An attempt to use fMRI as a lie detector in an actual court case resulted in the following conclusion:

- (A) It should not be accepted as evidence in court pending further study
- (B) The method had not gained widespread acceptance among scientists

- (C) The method's real-world accuracy had yet to be assessed
- (D) The method's real-world validity had yet to be assessed
- (E) All of these

Answer: (E) All of these

20 The systematic decrease in a learned response after repeated presentations of a stimulus is most accurately termed:

- (A) Reward
- (B) Sensitization
- (C) Extinction
- (D) Habituation
- (E) Punishment

Answer: (D) Habituation

21 LTP and LTD are two potential mechanisms of:

- (A) Neuroimaging
- (B) Learning
- (C) Genotyping
- (D) Binocular rivalry
- (E) Standardized testing of intelligence

Answer: (B) Learning

22 Fraternal twins share what percentage of their genes?

- (A) 50% on average
- (B) 50% exactly
- (C) 100% exactly
- (D) 100% on average
- (E) 75% on average

Answer: (A) 50% on average

23 Which two researchers are credited with discovering the structure of DNA?

- (A) Baddeley and Hitch
- (B) Watson and Crick
- (C) Eric Kandel and Donald Hebb
- (D) Rescorla and Wagner
- (E) Darwin and Sir Francis Galton

Answer: (B) Watson and Crick

24 Down syndrome can be described as sporadic in that:

- (A) There's no evidence it runs in families
- (B) It reflects chromosomal abnormalities
- (C) It typically resolves by the seventh year of age
- (D) It tends to arise every other generation in families
- (E) It is wholly independent of genetic factors

Answer: (A) There's no evidence it runs in families

25 Epigenetics refers most accurately to:

- (A) The study of gene-environment interaction
- (B) The development of genetic hybrid animal models
- (C) The historical analysis of the eugenics movement
- (D) The development of artificial intelligence
- (E) Simple Mendelian inheritance

Answer: (A) The study of gene-environment interaction