1. A stroke causing damage to Broca's area might NOT result in Broca's aphasia if:
   (a) the stroke occurred at birth.
   (b) the stroke only damaged the left hemisphere.
   (c) the stroke only occurred late in life.
   (d) the stroke occurred after language acquisition.

2. What factors can you discern in a "point-light" biological motion display?
   (a) Gender
   (b) Activity
   (c) Emotion
   (d) All of the above

3. Which of the following is NOT a symptom of Parkinson's disease?
   (a) Tremor
   (b) Akinesia
   (c) Rigidity
   (d) Heightened proprioception

4. Patients with Parkinson's disease rely on _____ to coordinate movements.
   (a) proprioception
   (b) errors
   (c) visual cues
   (d) auditory cues

5. A "Homer Simpson neuron," which fires strongly to the image of Homer but does not fire to anything else would be part of the _____ located in _____.
   (a) "where pathway", inferotemporal cortex
   (b) ventral stream, inferotemporal cortex
   (c) dorsal stream, parietal cortex
   (d) "what pathway", parietal cortex

6. The _____ states that the neuron is the basic structural and functional unit of the brain.
   (a) law of dynamic polarization
   (b) axon hillock
   (c) neuron doctrine
   (d) homunculus

7. Parkinson's disease is caused by cell death in the _____, while deafferented patients have cell death in the _____.
   (a) cortex, brain stem
   (b) basal ganglia, spinal cord
   (c) cerebellum, brain stem
   (d) basal ganglia, cerebellum

8. When recording from a rat hippocampal place cell, you notice that the cell only fires when the rat is located 1 foot away from a circle located on the north wall of its enclosure. What happens if you move the circle to the south wall of the enclosure? **(either A or D)**
   (a) The cell continues to fire 1 foot away from the north wall.
   (b) The cell stops firing no matter where the rat is located.
   (c) The cell only fires if the rat is facing the circle.
   (d) The cell only fires when the rat is located 1 foot away from the south wall.

9. MT neurons are said to exhibit a "tuning curve." This means _____.
   (a) Their responses are driven by sensory input
   (b) they respond maximally to a stimulus of a particular DIRECTION
   (c) they display a pattern of sustained response
   (d) none of the above—correct for form A as "direction" was misprinted as "location"

10. An example of an allocentric frame of reference is:
   (a) object location relative to the library
   (b) object location relative to head position
   (c) object location relative to a path from the Cog Sci building to the library
   (d) object location relative to hand position

11. As they mature, infants _____ at discriminating sounds that are not contrastive in their native language.
   (a) get better
   (b) get worse
   (c) remain good
   (d) remain poor

12. What happens when LIP neurons fire action potentials at a high rate?
   (a) the monkey receives a reward
   (b) neurons in MT fire
   (c) the eye moves
   (d) the stimulus disappears

13. In the random dots coherent motion paradigm, LIP neurons:
   (a) show a sustained response to their preferred direction.
   (b) show a slower ramping response ONLY when coherence is high.
   (c) reflect the direction of the stimulus.
   (d) reflect the subject's behavioral decision.

14. A child says, "Darf Vader was Luke's father". What is this an example of?
   (a) Phonological encoding error
   (b) Category identification error
   (c) Present-referent identification error
   (d) None of the above

15. Genes affect an organism by _____.
    (a) a 1-to-1 mapping between gene and trait
    (b) complex pathways where genes activate other genes and timing is critical
    (c) forming the organism and then doing nothing for the rest of the organism's life
    (d) none of the above

16. When the man had trouble getting up from the chair, it was an example of which symptom of Parkinsonism?
    (a) tremor
    (b) akinesia
    (c) rigidity
    (d) loss of postural reflexes

17. The mirror neuron system is thought to bridge _____.
    (a) vision and sensation
    (b) perception and action
    (c) logic and action
    (d) reason and emotion

18. The little boy who insisted that Professor Creel say "Marlin," instead of "Maa-lin" demonstrated:
    (a) that young children's speech perception is worse than adults' speech perception.
    (b) that young children's speech perception can be better than their speech production.
    (c) that young children are capable of speaking just as well as adults.
    (d) that young children's speech discrimination can be better than adults' speech discrimination.

19. Infants as young as 8 months can pick up complex syntactic rules by _____.
    (a) productive vocabulary
    (b) FOXp2
    (c) statistical learning
    (d) opportunistic brains

20. A clump of cells of a similar type is called a _____.
    (a) soma
    (b) dendrite
    (c) nucleus
    (d) unit

21. Why would the deafferented patient, Ian, fall down if he was suddenly in the dark?
    (a) He relies only on vision to guide his motor movements.
    (b) His proprioception and vision are entirely integrated.
    (c) He has lost his postural reflexes.
    (d) He relies on vision to access his proprioception.

22. Which of the following is true?
    (a) The basal ganglia directly control motor neurons, and therefore directly control movement.
    (b) The basal ganglia modulate motor control through the motor cortex.
    (c) The basal ganglia connect to structures in the brain that produce dopamine.
    (d) (b) and (c)

23. Which of the following statements is INCORRECT?
    (a) The FOXp2 gene is expressed in many different species.
    (b) Visual input does not affect auditory perception.
    (c) Chimp vocal cords and human vocal cords have different shapes.
    (d) There are language modules in the brain specifically for speech and comprehension.

24. What do humans have unique to our species that allows us to speak?
    (a) A differently shaped vocal tract
    (b) Greater connectivity in the brain
    (c) Fine motor control with facial muscles
    (d) All of the above

25. Monkeys' eye movements are _____ with more coherent stimuli and _____ with less coherent stimuli.
    (a) faster, slower
    (b) slower, faster
    (c) more accurate, less accurate
    (d) less accurate, more accurate
    (e) (a) and (c)

26. Kanzi the bonobo would have trouble obeying which of the following commands?
    (a) Don't turn off the water.
    (b) Eat the onion.
    (c) Bring me the onion.
    (d) Wash the potato.

27. What is the process through which the brain can recover from serious injury?
    (a) A language module
    (b) Plasticity
    (c) Statistical learning
    (d) Brain recovery genes

28. An experimenter is recording from a mirror neuron in a monkey. First, the monkey watches the experimenter reach to grab a block, and the neuron fires. Next, the block is removed and the experimenter repeats the motion. This time the neuron does not fire. Why not?
    (a) The neuron only responds to meaningful motion.
    (b) The neuron only responds to the block.
    (c) The monkey did not perform the motion.
    (d) The motion is not encoded as biological motion.

29. What is similar about LIP activity during the random dots coherent motion paradigm and the mathematical model, which Dr. Yu presented?
    (a) Both accumulate evidence for a decision faster when the stimulus is stronger.
    (b) Both accumulate information over time.
    (c) Both stop once the evidence has reached a certain threshold.
    (d) All of the above.

30. One problem with the "Theory-Theory" explanation of how we understand others' actions and intentions is: **(either A or B)**
    (a) It requires conscious processing.
    (b) It does not explain how rapidly we can understand intentions.
    (c) It relies on visual perception.
    (d) It does not include extrastriate cortex.

31. To make a decision, one must take into account:
    (a) the decision itself
    (b) uncertainty
    (c) costs
    (d) only (a) and (c)
    (e) (a), (b), and (c)

32. What can the Headturn Preference Procedure tell a researcher about a child?
    (a) What predicts a visual reward?
    (b) What does a word refer to?
    (c) What seems interesting to the child?
    (d) What seems novel or new to the child?

33. Honeybees dance in the hive to indicate to other bees the location of food. This behavior is best described as _____.
    (a) language
    (b) syntax
    (c) communication
    (d) intuition

34. What may be a common problem among all types of autism spectrum disorders?
    (a) Overly-suppressed Mu rhythms
    (b) Complete lack of Mu rhythm suppression in all situations
    (c) Extremely low intelligence
    (d) Difficulty learning through imitation

35. If a person is shown a highly interactive video, what happens to Mu rhythms?
    (a) They are suppressed
    (b) They are enhanced
    (c) They do not change
    (d) None of the above

36. In Dr. Poizner's pointing experiment, why did Parkinson's disease patients perform best when they were able to see their fingers?
    (a) It was easier for them to hold the target location in memory.
    (b) They were able to make a purposeful movement and suppress their tremor.
    (c) It was possible for them to see their spatial errors.
    (d) They were able to use visual feedback to compensate for impaired proprioception.

37. Which of the following is TRUE?
    (a) Young infants can discriminate the same sound categories as adults.
    (b) Non-human animals can distinguish sounds based on voice onset time.
    (c) Children as old as 3 years can distinguish sound contrasts that are not in their native languages.
    (d) Significant exposure to specific sound contrasts is necessary for newborns to distinguish them.

38. Damage to the mirror neuron system might result in:
    (a) less inhibition when learning new motor skills.
    (b) difficulty perceiving where your own body is in space.
    (c) an increased ability to imitate others.
    (d) difficulty understanding other people's behavior.

39. Which of the following methods is best for testing VERY young infants?
    (a) Head turn preference
    (b) Habituation
    (c) Condition head turn procedure
    (d) Picture fixation

40. Which of the following is not likely to change Mu rhythms from their resting state?
    (a) You walking
    (b) Seeing someone else walking
    (c) Seeing someone doing air-guitar riffs
    (d) Watching the second-hand of a clock move

41. The law of dynamic polarization states that the neuron is:
    (a) The basic structural and functional unit of the brain
    (b) A black box of information
    (c) An action potential
    (d) An input/output device

42. The place field of a place cell is a(n) _____ mapping of the environment.
    (a) allocentric
    (b) egocentric
    (c) route-centric
    (d) retinotopic

43. In the random dots coherent motion paradigm, MT neuron activity depends on:
    (a) the direction of the stimulus.
    (b) the strength of the stimulus.
    (c) the subject's behavioral response.
    (d) (a) and (b)
    (e) (b) and (c)

44. Which of the following is the correct direction of an action potential?
    (a) soma -> dendrite -> axon -> axon terminal
    (b) axon terminal -> dendrite -> soma -> axon
    (c) dendrite -> axon -> axon terminal -> soma
    (d) dendrite -> soma -> axon -> axon terminal

45. When recording a neuron's action potentials, we say the neuron shows a "strong" response when it shows:
    (a) an isolated action potential
    (b) a very large action potential
    (c) action potentials that are larger than normal
    (d) a high rate of action potentials

46. What is one difference between the human and monkey mirror neuron systems? **(either B or C)**
    (a) Involvement in social cognition
    (b) Ability to respond to non-biological agents
    (c) Responses to goal-directed behaviors
    (d) Mirror neurons located in inferior frontal regions of the brain

47. You are staring at the lecturer's power point slides, when suddenly a guy dressed in a gorilla costume comes through the side door. Moving your eyes to fixate on the gorilla is called a _____.
    (a) function
    (b) paradigm
    (c) saccade
    (d) coherence

48. The "where" pathway of visual processing through the parietal cortex is also known as the _____.
    (a) ventral stream
    (b) dorsal stream
    (c) allocentric pathway
    (d) grid cell pathway

49. A habituation procedure will tell you what an infant perceives to be _____.
    (a) new
    (b) referred to by a word
    (c) rewarding
    (d) pleasant

50. For English-speakers, [p] and [b] can be distinguished by _____.
    (a) Voice onset time
    (b) Habituation
    (c) Head-turn preference
    (d) Present-referent identification