

Multiple Choice Answers

1. C
2. B
3. B
4. D
5. C
6. ACD
7. C
8. B
9. A
10. C
11. B
12. D
13. C
14. C
15. A
16. C
17. C
18. A
19. A
20. D
21. B
22. C
23. D
24. A
25. D
26. C
27. B
28. A
29. A
30. D
31. C
32. C
33. A
34. C
35. A
36. B
37. B
38. A
39. D
40. B

True/False Answers

1. T
2. T
3. F
4. F
5. T
6. F
7. T
8. F
9. T
10. T
11. F
12. F
13. F
14. F
15. T
16. F
17. T
18. F
19. T
20. T
21. F
22. T
23. T
24. T
25. F
26. T
27. F
28. T
29. F
30. T

Fill In The Blank Answers

1. Any answer between 80 and 100 billion (including the endpoints) is correct
2. Critical Period
3. *Aplysia Californica*
4. *Drosophila Melanogaster*
5. FOXP2
6. Anterograde
7. ALS/Amyotrophic Lateral Sclerosis
8. Circadian
9. Circadian
10. TMS/Transcranial Magnetic Stimulation
11. 21
12. Cirrhosis
13. MPTP
14. tPA/Tissue Plasminogen Activator
15. Neuropathy

Extended Response Answers

[accept closely related answers which demonstrate an understanding of the underlying physiological processes]

- A. Resting Potential
Closed, Closed
- B. Depolarization
Open, Closed
- C. Repolarization/Hyperpolarization
Closed, Open
- D. Afterhyperpolarization/Hyperpolarization
Closed, Closed
- E. Threshold/Threshold Potential
- F. 1 point for correctly defining refractory period, 1 point for explaining that the temporary inactivation/closure of sodium channels is responsible for explaining this process

Example answer:

A refractory period is a time following an action potential during which a neuron is unable to fire because its voltage-gated sodium channels are temporarily inactivated.