

**CSM Physiology Exam 2 Fall 2008  
Answer Section****TRUE/FALSE**

- |           |        |
|-----------|--------|
| 1. ANS: F | PTS: 1 |
| 2. ANS: T | PTS: 1 |
| 3. ANS: T | PTS: 1 |
| 4. ANS: F | PTS: 1 |
| 5. ANS: T | PTS: 1 |
| 6. ANS: T | PTS: 1 |
| 7. ANS: F | PTS: 1 |
| 8. ANS: T | PTS: 1 |

**MULTIPLE CHOICE**

- |            |        |
|------------|--------|
| 9. ANS: D  | PTS: 1 |
| 10. ANS: C | PTS: 1 |
| 11. ANS: A | PTS: 1 |
| 12. ANS: C | PTS: 1 |
| 13. ANS: C | PTS: 1 |
| 14. ANS: A | PTS: 1 |
| 15. ANS: D | PTS: 1 |
| 16. ANS: A | PTS: 1 |
| 17. ANS: B | PTS: 1 |
| 18. ANS: B | PTS: 1 |
| 19. ANS: B | PTS: 1 |
| 20. ANS: C | PTS: 1 |
| 21. ANS: D | PTS: 1 |
| 22. ANS: E | PTS: 1 |
| 23. ANS: D | PTS: 1 |
| 24. ANS: B | PTS: 1 |
| 25. ANS: B | PTS: 1 |
| 26. ANS: C | PTS: 1 |
| 27. ANS: B | PTS: 1 |
| 28. ANS: B | PTS: 1 |
| 29. ANS: D | PTS: 1 |
| 30. ANS: C | PTS: 1 |
| 31. ANS: D | PTS: 1 |
| 32. ANS: C | PTS: 1 |
| 33. ANS: A | PTS: 1 |
| 34. ANS: D | PTS: 1 |

35. ANS: B                   PTS: 1  
 36. ANS: C                   PTS: 1  
 37. ANS: A                   PTS: 1  
 38. ANS: B                   PTS: 1  
 39. ANS: A                   PTS: 1

**MATCHING**

40. ANS: E                   PTS: 1  
 41. ANS: A                   PTS: 1  
 42. ANS: B                   PTS: 1  
 43. ANS: C                   PTS: 1  
 44. ANS: D                   PTS: 1  
  
 45. ANS: C                   PTS: 1  
 46. ANS: D                   PTS: 1  
 47. ANS: A                   PTS: 1  
 48. ANS: B                   PTS: 1  
  
 49. ANS: B                   PTS: 1  
 50. ANS: D                   PTS: 1  
 51. ANS: A                   PTS: 1  
 52. ANS: C                   PTS: 1  
  
 53. ANS: C                   PTS: 1  
 54. ANS: A                   PTS: 1  
 55. ANS: D                   PTS: 1

**SHORT ANSWER**

56. ANS:  
 The action potential threshold must be reached. If some of the synapses are inhibitory, then summation at the axon hillock may not reach the threshold voltage required for an action potential

PTS: 1

57. ANS:  
 AP in presynaptic neuron goes to synaptic end bulb, calcium enters bulb, causing synaptic vesicles fuse to fuse with presynaptic membrane, releasing acetylcholine. Acetylcholine diffuses across the synaptic cleft and binds to receptors, causing stimulatory graded potential (called motor end plate potentials - MEPPs), MEPPs cause an action potential along the sarcolemma, into T tubule. This causes the sarcoplasmic reticulum to release Ca, Ca diffuses into cytosol and binds to troponin, moves tropomyosin off the actin binding site, myosin heads bind the thin filaments to start crossbridge cycle. When the motor neuron stops sending action potentials, this stops Ach release, AP in mm stops, Ca is pumped back to SR.

PTS: 1