

Bi 253  
Answers to sample exam 2

1. d tidal ventilation is what all terrestrial vertebrates do, except for birds
2. c fish have a counter-current gas exchanger that is much more efficient
3. d there are no such things as oxygen transporters
4. e a and b are both true
5. c a small proportion goes as CO<sub>2</sub>, the rest as bicarb
6. a b, c, and d are all part of the flow equation
7. a more conc. driving force for K<sup>+</sup>, bigger Nernst potential req'd to stop it
8. d both types of voltage gated channels are needed
9. a ipsp's are made post-synaptically in response to transmitter binding
10. e GPs are found in all neurons, but not axons, & typically depolarizations
11. c K<sup>+</sup> and Na<sup>+</sup> have similar concentration driving forces, but in opposite directions
12. c low frequencies excite the distal, apical region which is broader & less rigid
13. c the primitive condition for mammals is mono- or di-chromats, but good night vision
14. d middle ear ossicles are force transducers
15. c exposing tip channels via tip-links is how it works
16. b the tectorial membrane provides shear force to displace the stereocilia bundles
17. d pheromones are for chemical communication between individuals
18. b there is both neural and endocrine control of endocrine tissues
19. d the hypothalamus is part of the CNS
20. a binding to the promoter region is characteristic of steroid hormones, not epinephrine