

Bio Final Review

1. Which of these examples is/are "free?"
 - a) temperature regulation of dolphin testes
 - b) oxygenation of blood via gills
 - c) transpiration of water through a tree
 - d) two of the above are correct
 - e) all of the above are correct
2. What is a cost of ectothermy?
 - a) requires bulk feeding
 - b) less maintenance
 - c) only active when temperatures are warm
 - d) often have cryptic coloration
 - e) less exposed to predators
3. What is an example of a metatherian mammal?
 - a) platypus
 - b) kangaroo
 - c) cotton-tail rabbit
 - d) both a & b
 - e) both b & c
4. With what is the FOXP2 gene associated?
 - a) body plan
 - b) language
 - c) imprinting
 - d) nature vs. nurture
 - e) olfactory senses
5. If b increases and m decreases, what will happen to r_{max} ?
 - a) r_{max} increases
 - b) r_{max} decreases
 - c) r_{max} is not affected
 - d) r_{max} will increase and then decrease
 - e) r_{max} crashes
6. Biomes are defined by _____?
 - a) dominant predators
 - b) vegetation
 - c) largest herbivores
 - d) average temperature
 - e) longitude

7. What is/are the major determinates of the dominant plant types within a biome?
- rainfall and climate
 - dominant herbivores
 - available phosphorous
 - average temperature
 - keystone species
8. Which is NOT true about the desert biome?
- characterized by a lack of water
 - located globally around the 30 parallel
 - defined by a fire-adapted plant species
 - has extreme temperatures (very high and low)
 - many plants and animals with physical defenses
9. What contributes to Ohio having the summer season?
- 23.5 tilt of the earth on its axis
 - a shorter cord of sunlight
 - 24 hour rotation along the earth's axis
 - both a and b
 - both b and c
10. _____ cycle between biota and abiotic resevoirs, while _____ flows within and through the ecosystem, but is eventually lost.
- disease; momentum
 - energy; chemicals
 - chemicals; nutrients
 - chemicals; energy
 - nutrients; sunlight
11. What is the energy transfer between trophic levels in an ecosystem?
- 5 %
 - 10%
 - 15%
 - 20%
 - 25%
12. Which term is the least specific for classifying this animal? (some random insect)
- arthropoda
 - malacostraca
 - ecdysozoa
 - isopoda
 - protostome

13. What is NOT a characteristic of a member of Chondrichthyes?
- a) 4 sets of hox genes
 - b) lateral line system
 - c) mineralized skeleton
 - d) high amount of lipids
 - e) gnathostomes
14. Which statement is NOT true concerning population growth?
- a) When the per capita rate of increase, r , is smaller, the growth curve will be steeper
 - b) When the population hits K , it can oscillate around K , live within K , or crash after reaching K .
 - c) The exponential growth curve is sometimes described as a "J curve."
 - d) Logistic growth accounts for the fact that resources are limited and habitats have carrying capacities.
15. Under what type of survivorship curve will a horse be categorized?
- a) Type I survivorship curve
 - b) Type II survivorship curve
 - c) Type III survivorship curve
 - d) Type A survivorship curve
 - e) None of the above
16. What is NOT a derived feature compared to an aquatic ancestor?
- a) amniotic egg
 - b) internal fertilization
 - c) dry skin
 - d) ribs associated with breathing
 - e) presence of lungs
17. In the US species such as kudzu, zebra mussels, emerald ash borers and Asian carp are considered:
- a) keystone species
 - b) parasitic species
 - c) invasive species
 - d) alienated species
18. All of these are an example of coevolution EXCEPT
- a) flowering plants and insects/birds
 - b) Ecto- and endoparasites and their hosts
 - c) Predators and their prey
 - d) Chemical cycling between biotic and abiotic mediums