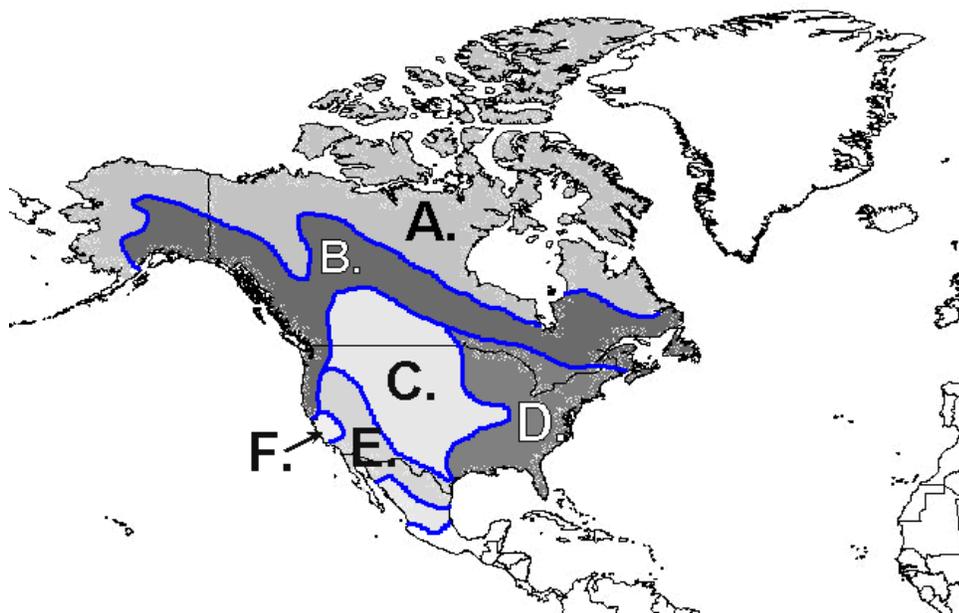


**USE THE “BUBBLE SHEET” TO ANSWER THE FOLLOWING QUESTIONS.
ENTER YOUR NAME ON THE BUBBLE FORM AND FILL THE CIRCLES.**

(be sure to mark "blank" between your first, middle, and last names)

Each question is worth 3 points.

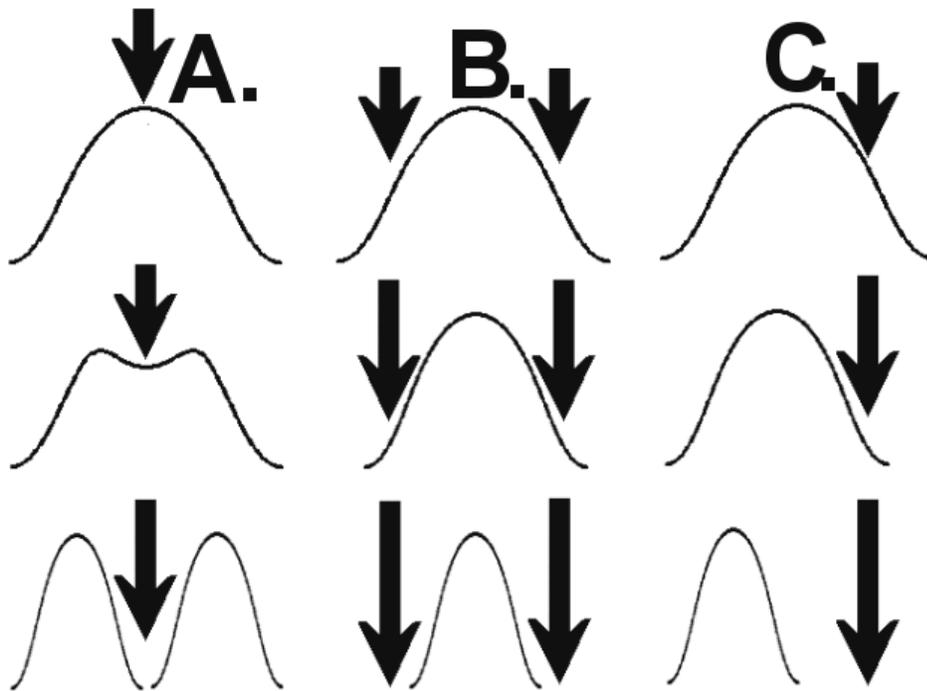


1. On the map above “D” refers to
 - a. Boreal Forest
 - b. Chaparral (Woodland)
 - c. Desert
 - d. Grasslands
 - e. Temperate Deciduous Forest

2. On the map above “F” refers to
 - a. Boreal Forest
 - b. Chaparral (Woodland)
 - c. Desert
 - d. Grasslands
 - e. Temperate Deciduous Forest

3. On the map above, for biome “E” the most important factor is
 - a. Availability Of Light
 - b. Cold (summer temperature less than 10°C), Wind
 - c. Dry, Fires Very Frequent
 - d. Seasonal (summer) Drought
 - e. Very Dry (less than 250 mm annual rainfall)

4. On the map above, for biome “A” the most important factor is
 - a. Availability Of Light
 - b. Cold (summer temperature less than 10°C), Wind
 - c. Dry, Fires Very Frequent
 - d. Seasonal (summer) Drought
 - e. Very Dry (less than 250 mm annual rainfall)



The arrows symbolize biological process that change the frequency of traits or alleles in a population.

5. The evolutionary process diagramed above under “A” is

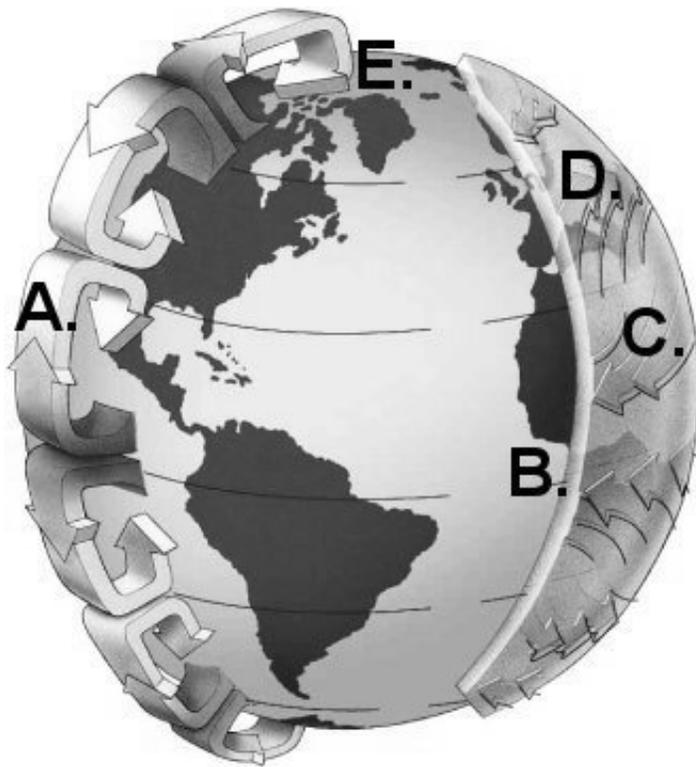
- directional selection
- disruptive selection
- microevolution
- natural selection
- stabilizing selection

6. The evolutionary process diagramed above under “B” is

- directional selection
- disruptive selection
- microevolution
- natural selection
- stabilizing selection

7. The evolutionary process diagramed above under “C” is

- directional selection
- disruptive selection
- microevolution
- natural selection
- stabilizing selection



8. In the figure of atmospheric circulation above, **letter "A"** marks the

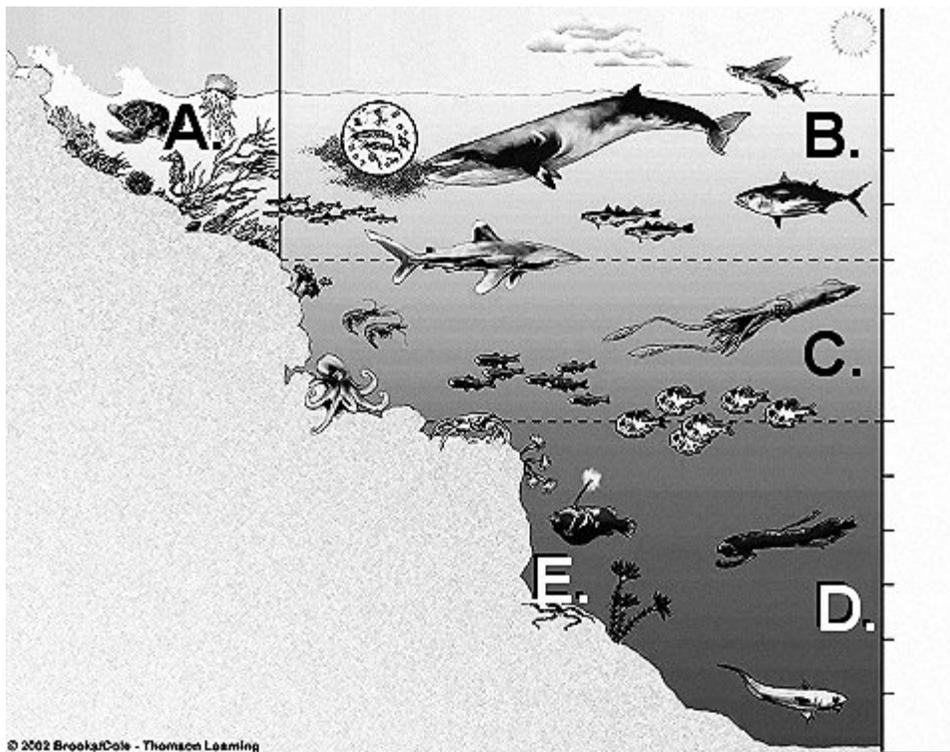
- a. Easterlies
- b. Hadley Circulation
- c. ITCZ
- d. Trade Winds
- e. Westerlies

9. In the figure of atmospheric circulation above, **letter "D"** marks the

- a. Easterlies
- b. Hadley Circulation
- c. ITCZ
- d. Trade Winds
- e. Westerlies

10. in the figure above, the feature of atmospheric circulation primarily responsible for the locations of Earth's tropical rainforest biomes is

- a. A
- b. B
- c. C
- d. D
- e. E



11. In the figure of the marine ecosystem above, the pelagic layer where oxygen is usually highest is marked by

- a. A
- b. B
- c. C
- d. D
- e. E

12. In the figure of the marine ecosystem, the pelagic layer where dissolved nutrients are most abundant is

- a. A
- b. B
- c. C
- d. D
- e. E

13. In the figure of the marine ecosystem above, the layer most similar to the “**littoral**” area of freshwater ecosystems is

- a. A
- b. B
- c. C
- d. D
- e. E

14. In the figure of the marine ecosystem above, the “**thermocline**” is between

- a. A & B
- b. B & C
- c. C & D
- d. D & E
- e. E & A

15. The ecosystem trophic member known as “**Producers**” best match the role of
- breakdown organic remains
 - carbon, hydrogen, oxygen, nitrogen, phosphorus, sulfur
 - feed on partly decomposed matter
 - herbivores, carnivores, omnivores
 - photoautotrophes
16. Dinosaurs became Earth's dominant organisms during the
- Cenozoic
 - Holocene
 - Mesozoic
 - Paleozoic
 - Pleistocene
17. The feature of climate and atmospheric circulation produced by heating at the equator producing ascending air that descends at 20 - 30 ° N and S latitude is (are)
- Easterlies
 - Hadley Circulation
 - ITCZ
 - Trade Winds
 - Westerlies
18. The ecosystem trophic member known as “**Consumers**” best match the role of
- breakdown organic remains
 - carbon, hydrogen, oxygen, nitrogen, phosphorus, sulfur
 - feed on partly decomposed matter
 - herbivores, carnivores, omnivores
 - photoautotrophes
19. The skulls of which hominid has the largest cranial ridges
- Australopithecus afarensis*
 - Homo erectus*
 - Homo habilis*
 - Homo neanderthalensis*
 - Paranthropus boisei*
20. Species may be driven to extinction by
- complicated, hidden factors
 - obvious factors
 - human activities
 - all of the above (a,b,c)
 - none of the above (a,b,c)
21. Global-scale regions characterized by certain types of life, especially forms of vegetation are
- acraeges
 - biomes
 - ecosystems
 - environments
 - systems

22. A biome characterized by drought, grazing by large herbivores, and very frequent fires.
- boreal forest
 - chaparral
 - grassland
 - deciduous forest
 - tundra
23. The most accurate technique dating prehistoric events is
- the fossil sequence
 - potassium - argon dating
 - radiocarbon dating
 - stratigraphic correlation
 - tree rings
24. Of the following causes of mass extinctions, the one explaining the extinction of dinosaurs that is best supported by geological evidence from the Yucatan Peninsula of Mexico is
- asteroids
 - climate
 - oceanic catastrophe
 - predation
 - volcanoes
25. The following are primary factors determining Earth's climate **except**
- Earth's energy is from the sun
 - Earth is a sphere
 - Earth loses heat to space through evaporation
 - Earth rotates on its axis
 - Earth's redistribution of energy
26. The following are unique features in primate-hominid evolution **except**
- color binocular vision
 - grasping hands
 - large brain
 - mating behavior
 - walking upright
27. The general term for short-term changes in temperature, rain fall, clouds, and winds is
- climate
 - fronts
 - precipitation
 - tornadoes
 - weather
28. The "out of Africa" hypothesis means that
- Homo habilis* was the first hominid tool user
 - Homo habilis* was the closest ancestor of *Homo erectus*
 - Homo erectus* was the first hominid to use fire
 - Homo sapiens* is not a blend of *Homo erectus* stock
 - Orrorin tugenensis* was the earliest hominid

29. _____ organs develop from the same tissue during an organism's growth and development, but they serve very different purposes in adult animals.
- adaptive
 - analogous
 - directional
 - homologous
 - stabilizing
30. The primary division of the dinosaurs into two groups is based on
- their diet (carnivore *vs.* herbivore)
 - the environment they inhabited (air, land, water)
 - their metabolism (warm blooded *vs.* cold blooded)
 - the shapes of their hips
 - their size
31. The process resulting in changes of biodiversity through geological time is
- macroevolution
 - microevolution
 - mutation
 - natural selection
 - selection
32. The process of becoming better suited to the environment through accumulation of favorable genetic changes leading to increased successful reproduction
- macroevolution
 - microevolution
 - mutation
 - natural selection
 - selection
33. Which of the following hominid species was the first to inhabit Europe and Asia?
- Australopithecus afarensis*
 - Homo erectus*
 - Homo habilis*
 - Homo neanderthalensis*
 - Homo sapiens*