

Identify the following terms for 2 points each.

1. Nucleotide
2. Gene regulation
3. Hemoglobin
4. Mutation
5. Sickle Cell Anemia
6. Genotype vs. Phenotype
7. Genetic Drift
8. Gene flow
9. Selection
10. Pliocene climates
11. Bipedalism
12. Hominid
13. *Australopithecus afarensis*
14. *Homo erectus*
15. *Homo neandertalensis*
16. *Homo sapiens*
17. Polymorphism
18. ABO blood group
19. Antigen
20. Rhesus blood group
21. Maternal-fetal incompatibility
22. PKU
23. Malaria
24. *Anopheles gambiae*
25. G6PD deficiency
26. Fava beans
27. Bergmann's Rule
28. Allen's Rule
29. Melanin
30. Vitamin D
31. Rickets
32. Benjamin Rush
33. Frederick Hoffman
34. Racial health profiling
35. Mitochondrial DNA
36. Y Chromosome
37. Racial genetic variability
38. Sir Cyril Burt
39. The Bell Curve
40. J. Philippe Rushton

Name: _____

Short Essay: Answer the following questions for 10 points each.

1. Briefly describe the nature of the patterning of variability shown by the hominid fossil record and what genetic, environmental, and behavioral causes might account for this patterning.
2. Briefly describe the nature of the patterning of variability of the ABO blood group in human populations and tell what causes are thought to be behind this distribution.
3. Briefly describe how malaria accounts for the distribution of sickle cell anemia and Glucose-6-Phosphate Dehydrogenase deficiency in human populations.
4. Briefly describe the nature of the patterning of variability in body size and shape OR in skin color and discuss the likely genetic and environmental causes of this patterning.
5. Briefly describe the patterning of Y-chromosome DNA variability that R. Spencer Wells used in "The Journey of Man" to portray the history of our species and tell roughly when and how migrations of populations served to generate the present day patterning of DNA variability.
6. Why don't genes count for racial differences in health (i.e., why doesn't [or does] it make sense to use race as a significant predictor of health and disease)?
7. Describe the general nature of patterning of biological variation in human populations and the causes of this patterning.
8. What is the relationship between race and intelligence?