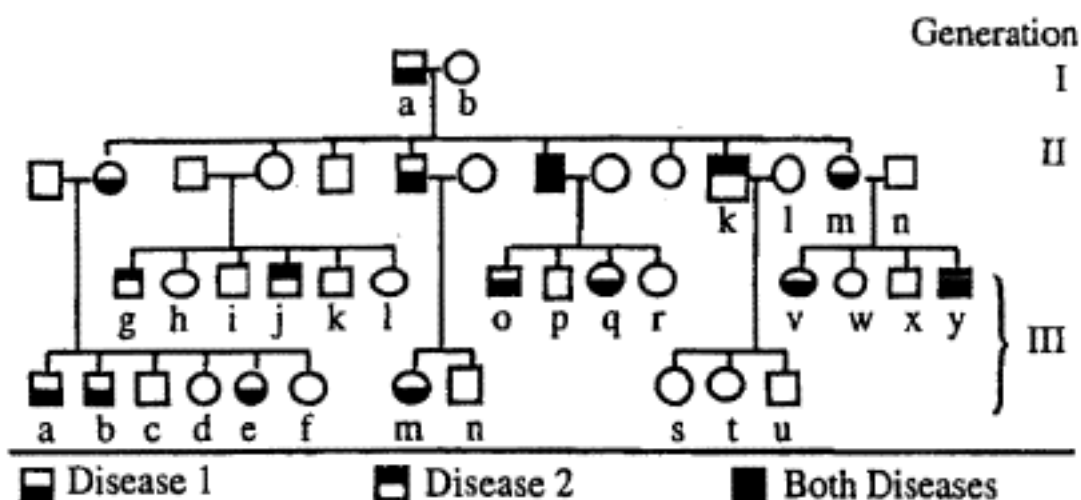


Passage 64 (Questions 1-6)



The diagram above is a pedigree of three generations showing the occurrence of two genetically-transmitted diseases. Phenotypes of affected individuals are shown. Circles represent females, and squares represent males. Assume that the diseases are rare, unlinked, and that individuals not blood related to I-a and I-b (“in-laws”) do not have either disease-producing allele.

1. Which one of the following is true concerning Individual I-a?
 - A. He is homozygous for Disease 1, and the allele for this disease is autosomal recessive.
 - B. He is heterozygous for Disease 1, and the allele for this disease is X-linked recessive.
 - C. He is heterozygous for Disease 1, and the allele for this disease is dominant.
 - D. None of the above is necessarily true.