Huntington’s disease is a rare, inherited neurodegenerative disorder. Symptoms include uncontrolled involuntary movements and cognitive decline. The pedigree above illustrates the inheritance pattern of Huntington’s disease. Using this pedigree, answer the following questions:

1. Based on the pedigree above, does the inheritance pattern of Huntington’s disease appear to be X-linked or autosomal? What clues support your conclusion?

2. Does the inheritance pattern of Huntington’s disease represent a dominant or recessive disorder? How do you know?

3. After examining the pedigree, you determine that there are no Huntington’s disease carriers present. What does this mean?

4. Individual II-3 (marked with an asterisk) appears to be unaffected. How is this possible?

5. List the potential genotypes of each of the following labeled individuals (make sure to define your letter notations of choice):
   a. #1: 
   b. #2: 
   c. #3: 
   d. #4: 
   e. #5: 

6. How many children in the fourth generation had Huntington’s disease?

7. How many males had Huntington’s disease?

8. How many females are unaffected by Huntington’s disease?