# **Case Study7, Chapter 18, Disorders of Thought, Emotion, and Memory**

**Norris, T. (2019). Porth’s Pathophysiology: Concepts of Altered Health States. 10th Ed. Philadelphia: Wolters Kluwer/Lippincott Williams & Wilkins. ; No references needed,**

Ella is 88 years old and was living at home until very recently. Her children, who visited her regularly, noticed that she was becoming more forgetful. At first, she mislaid objects, and then she began to forget her doctor’s appointments. With time, her personality changed, and she became withdrawn. At home, she would forget to turn off the stove or leave the kettle on until it boiled dry. After seeking advice from a gerontologist and social worker, Ella’s children placed her in a nursing home with a unit equipped for patients with Alzheimer disease.

1. What is dementia? Why is Alzheimer disease based on a “diagnosis of exclusion”?
2. What are the macroscopic and microscopic features of the brain that are typical in Alzheimer disease?
3. One of Ella’s children brought her a new pair of slippers to wear in the nursing home. A minute after she received them, Ella could not remember the exchange and asked what they were doing on her bed. What part of the brain has largely been affected to produce this behavior, and what is the pathophysiology involved?

Follow this example; Example;

Case Study, Chapter 4, Genetic Control of Cell Function and Inheritance Marsha and Clement are both carriers of sickle cell anemia, a disease that is autosomal recessive. Their first child, Amelia, does not have the disease. Marsha and Clement are planning another pregnancy, but they are concerned about their second child having the condition. Clement’s father died from complications of sickle cell disease shortly before Amelia was born

1. What is the likelihood of Marsha and Clement having a baby with sickle cell anemia? What is the chance the baby will be a carrier of the disease, just like the parents?

The gene is recessive, so the parents will have a 25% chance of giving birth to a child with the disease. There is a 50% chance that the baby will be a carrier

2. Marsha suggested to the nurse at the local family planning clinic that if the baby were a boy, he might have a higher risk of developing the disease, just like his grandfather. How would you respond?

The disease is autosomal in nature, meaning the disease arises from an abnormality on chromosomes 1 to 22. These chromosomes are alike in both males and females.

1. When Amelia, who does not have sickle cell anemia, grows up and marries someone who does have the disease, how likely will her children have the disease?

If Amelia has children to a father with sickle cell disease, the children will be carriers only.