



- A. Discuss the roles of two main types of genes that are critical in cancer? (10 points)
  - B. What is the difference between a totipotent and a pluripotent stem cell? Give an example to each. (10 points)
2. Trisomy is when three copies of a chromosome are present in an organism instead of two. How do trisomies such as Trisomy 21 in Down Syndrome occur? What is the mechanism that goes wrong? During which event? (10 points)