

Course Code (credits): 18B1WBT831 (03)

Max. Marks: 15

Course: Genetic Counseling

Max. Time: 1 Hour

Course Instructor: Dr. Sudhir Kumar

---

*Note: (a) All questions are compulsory.*

*(b) Marks are indicated against each question in square brackets.*

*(c) The candidate is allowed to make suitable numeric assumptions wherever required for solving problems.*

---

Q1: a) Why do Genetic Counselors prefer Non-Directive Counseling? Support your answer with suitable examples.

b) What is the probability that 01 out of 02 children of a couple having heterozygous status for Huntington disease (HD) will suffer from this diseases? [2+1]

Q2: a) What is the need and steps of Pre-implantation Genetic Diagnosis? Explain with the help of an example.

b) List out the goals of Pre-natal Diagnosis. [2+1]

Q3: a) What are the most common arguments FOR and AGAINST Predictive Testing in Children? Discuss the merits and demerits associated with each as provided by a patient/care giver and Genetic Counselor. [3]

b) What are the parameters on which a Genetic Counselor calculates the Risk of a Disease/Disorder? Explain with the help of examples. [3]

Q4: What is the genetic cause of Cystic Fibrosis and mention its diagnosis and probable treatment options. [3]