

1587

JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY, WAKNAGHAT

TEST -2 EXAMINATIONS- 2026

B.Tech.-VIII Semester (BT)

COURSE CODE (CREDITS): 18B1WBT831, 03

MAX MARKS: 25

COURSE NAME: Genetic Counselling

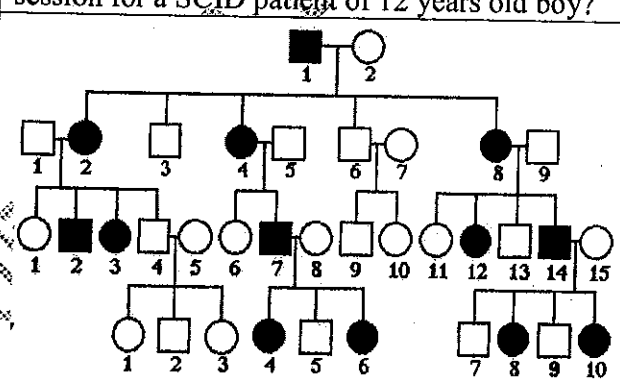
COURSE INSTRUCTOR: Prof. Sudhir Kumar

MAX. TIME: 1 Hour 30 Min

Note: (a) All questions are compulsory.

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

(c) Use of calculator is allowed.

Q.No	Questions	CO	Marks
Q1	What are the various genes responsible for Thalassemia? Analyze a case where a female is a carrier of Alpha Thalassemia with one mutant allele and her husband is having Beta Thalassemia minor; what is the probability of their children to inherit this disorder. What are the complications of this disorder for the patients and elaborate its likely treatment.	IV	05
Q2	We visited Integrated Muscular Dystrophy Rehabilitation Centre at Solan. What are the various types of dystrophies and their treatment in the centre; mention associated symptoms with each. How this centre can be helpful for your research and learning?	II	05
Q3	Differentiate among various viral vectors used for Gene Therpay with special mention to their merits and demerits. How these are different from Non-Viral vectors. How will you carry on a Genetic Counselling session for a SCID patient of 12 years old boy?	III	05
Q4	 <p>Determine the pattern of inheritance and genotype associated with each individual. Support your answer with suitable justification.</p>	II	05
Q5	Comment on Ethics in Genetic Counselling for Practitioners.	IV	05