

## JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY, WAKNAGHAT

TEST-3 EXAMINATION- May-2018

B.Tech (Biotech) VIII Semester

COURSE CODE: 11B1WBT838

MAX. MARKS:35

COURSE NAME: Genetic Counseling

COURSE CREDITS: 03

MAX. TIME: 2 Hours

*Note: All questions are compulsory. Be precise. Carrying of mobile phone during examinations will be treated as case of unfair means.*

1. Write a short note on followings:-

(COI, II; 1X5 = 5)

- Penetrance
- Empirical recurrence risk
- Inversion and translocation
- Reverse mutation
- Founder effect

2. Discuss symptoms and causes of Schizophrenia?

(COII; 3)

3. What are causes and treatment option available for Retinoblastoma?

(COII; 3)

4. What are advantages and disadvantages of pre-symptomatic testing of a genetic disorder? Discuss with an example.

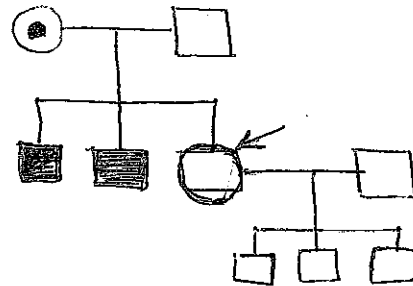
(COI; 3)

5. Explain targeted killing of specific cells with an example.

(COIII; 3)

6. Calculate posterior probabilities of a proband in the following figure of being a carrier or non-carrier (the disease is X-linked).

(COIV; 3)



7. What are symptoms of Colorectal cancer? Discuss hereditary colorectal cancer and familial adenomatous polyposis.

(COII; 5)

8. Explain various beneficiaries and elements of genetic counseling.

(COIV; 5)

9. Write a note on (a) *in-vivo* and *ex-vivo* gene therapy, and (b) HUGO ethics committee statement on gene therapy research.

(COIII; 5)