

Roll No:.....

JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY, WAKNAGHAT

TEST -1 EXAMINATION- Feb 2018

B.Tech. IV Semester

COURSE CODE: 10B11BT413

MAX. MARKS: 15

COURSE NAME: Molecular Biology

COURSE CREDITS: 04

MAX. TIME: 1.0 Hrs

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

- Q1. If a genome contains 30% adenine, calculate the percentage of other bases in the genome. (2 mark)
- Q2. Why saturated phenol is required in isolation of DNA from a biological sample? (2 mark)
- Q3. Which nitrogenous base is preferred; thymine or uracil base in DNA and RNA? Justify your answer with structural features and chemical properties of these bases for their occurrence in nucleic acids. (3 mark)
- Q4. Differentiate between B-DNA and Z-DNA confirmation of DNA and their biological significance. (3 mark)
- Q5. Describe the following terms in brief (5 marks)
- Polymerase chain reaction
 - Electrophoretic mobility shift assay