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JAYPPE UNIVERSITY OF INFORMATION TECHNOLOGY, WAKNAGHAT
TEST-1 EXAMINATION FEBRUARY 2020
B.TECH. VITH SEMESTER (BT)

COURSE CODE: 10B11BT611
COURSE NAME: CAMPARATIVE AND FUNCTIONAL GENOMICS
CREDITS: 04

MAX MARKS: 15

MAX TIME: 1HR

Note: All questions are compulsory. Carrying of mobile phone during examination will be treated as case of unfair means. Attempt all parts of a question paper.

1. What is the genome size of *E. coli* and how many genes encoding proteins are estimated for the organism? (2) COII
2. Gene density of the organism decreases with increase in the complexity of the organism, explain with examples? 2 (COI)
3. Draw a complete gene structure of a eukaryotic gene indicating UTR, Start and Stop, and splicing signals? 1.5 (COI)
4. What is pyrosequencing? Write the steps involved in it? What are the important applications of pyrosequencing that enable it a better approach in comparison to Sanger's sequencing? (5) COI
5. Solexa or Illumina sequencing approach has added new insight into the DNA sequencing technologies; write the method and mechanism of Illumina sequencing? 3 (CO II & COIII)