

JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY, WAKNAGHAT

TEST-1 EXAMINATION- September -2017

BTDD Biotechnology

COURSE CODE: 13M11BT114

MAX. MARKS: 15

COURSE NAME: High Throughput Technologies

COURSE CREDITS: 03

MAX. TIME: 1 HR

Note: All questions are compulsory. Carrying of mobile phone during examination will be treated as case of unfair means. Marks are indicated below each question

1. What is Illumina solid phase sequencing? Which generation sequencing technology it belongs to? Write the major steps in it and where do you find its application? (4)
2. What are the different applications of single cell sequencing? (3)
3. Write the strategies you will follow to annotate a given 2kb DNA sequences? (2)
4. Write briefly on digital RNA sequencing technology? (2)
5. Describe critical points on 1st generation, 2nd generation and 3rd generation DNA sequencing technology and which generation you would consider a high throughput approach for DNA sequencing? (2)
6. What are genome size and no. genes in *E. coli* and *S. cerevisiae*? (1)
7. What is the splicing signal in a typical eukaryotic gene?(1)

BT-10, BTDD