

JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY WAKNAGHAT

Test-2

Semester : 6<sup>th</sup> BTech Biotechnology

COURSE : Food and Agricultural Biotechnology

MAX.MARKS:25

COURSE CODE: 10B11BT612

TIME:1Hr 30 Min

Q1.Explain the mechanism of T-DNA transfer with diagram into the host plant cell and integration into the genome for the production of desirable product from the gene of interest. (5)

Q2. Do the intrinsic objections would raise concerns over GM crops? How those objections can be waived off? Justify your answer by citing examples.(3)

Q3. How would you develop the disease resistance soyabean by using biotechnological interventions? How ethical and legal aspects are involved for the same? Explain (3)

Q4. Explain the role of the followings in Agricultural Biotechnology:

- a. Molecular diagnostics
- b. Insecticide resistance
- c. Particle bombardment
- d. Starlink corn
- e. Bioremediation

(10)

Q5. How microbiological entities can be applied for improving the growth and developments of crop plants? Explain which one you would like to use for attaining agricultural sustainability? Why and How? ( 4)