

JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY WAKNAGHAT

TEST-3

SEMESTER : VII (BT/BTDD)

COURSE TITLE: Industrial Plant Tissue Culture

MAX.MARKS:35

COURSE CODE: 10B1WBT735

TIME: 2 HRS

Q1. Hydroponics could be the future for commercial plant production. Comment on the statement and explain how you can do it by employing active and passive modes for the same? (5)

Q2. Strawberry with disease resistance characteristics were developed by genetic modification. What are the bioethical concerns and objections could be raised? Mention with explanations. (5)

Q3. What do you mean by Biodiversity? How you can Bioprospecting the different resources of Biodiversity by keeping concern for Biodiversity Conservation?(5)

Q4. Write about the followings with their advantages:

- a) *In vitro* production of shikonin
- b) Convention on Biological Diversity
- c) Extraterrestrial plants
- d) Chromatographic techniques for metabolite estimation
- e) Airlift bioreactor

(15)

Q5. Which advancement in plant sciences has changed the status of commercial production and usage of different plant products? Explain by citing the case study. (5.0)