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**BT 501** 

## Third Semester M.Sc. Degree Examination, December 2018 (CBCS) (Optional) BIOTECHNOLOGY (Repeater) Principles of Biotechnology

Time: 3 Hours Max. Marks: 70

- 1. Write short notes on **any five** of the following (**not** exceeding **2** pages **each**). (5×3=15)
  - a) Prokaryotic cell. Differences between prokaryotes and eukaryotes.
  - b) Hot spots of Biodiversity.
  - c) Single cell proteins.
  - d) Microbes in ruminants.
  - e) Flavr-savr tomato.
  - f) Immunization versus vaccination.
  - g) Biopiracy.
- 2. Write critical notes on any five of the following (not exceeding 3 pages each).(5×5=25)
  - a) Chemical theory of evolution of life.
  - b) GM crops.
  - c) Biogas.
  - d) Genetic manipulation of microorganisms.
  - e) Transgenic fish.
  - f) Arabidopsis thaliana as model organism.
  - g) Energy plantations.
  - h) Intellectual property rights.

Answer any three of the following (not exceeding 7 pages each). (3×10=30)

- 3. Give an account of amino acids and proteins.
- 4. Discuss the uses of fermentation technology.
- 5. Give an account of stem cells and their applications.
- 6. Describe the various strategies for cancer therapy.
- 7. Discuss bioremediation.