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## (LH 4266) AUGUST 2015 Sub. Code: 4266

## THIRD YEAR B.PHARM. EXAMINATION (Common to Regulations 2004 – IV year candidates) PAPER VI - PHARMACEUTICAL BIOTECHNOLOGY

O.P. Code: 564266

Time: Three hours Maximum: 100 marks

I. Essay:  $(2 \times 20 = 40)$ 

- 1. a. Explain the methods of production of interferon by rDNA technology.
  - b. Differentiate moist heat and dry heat sterilization
- 2. a. Define fermentation. Explain the fermentative production of Penicillin.
  - b. Explain the production of insulin by genetic engineering technology.

II. Short notes:  $(8 \times 5 = 40)$ 

- 1. Bacterial growth curve.
- 2. Gram's staining technique.
- 3. Microbiological assay of antibiotics.
- 4. Production of single cell protein.
- 5. BCG Vaccine.
- 6. Bioprocess of citric acid.
- 7. Techniques in immobilization of enzyme.
- 8. Production and application of monoclonal antibodies.

III. Short answers:  $(10 \times 2 = 20)$ 

- 1. Bacteriophage.
- 2. Hepatitis –B.
- 3. Tyndallization.
- 4. Plasmid.
- 5. Culture Media.
- 6. Examples of Motile and non motile bacteria.
- 7. Define Immobilization.
- 8. Define Toxoid with examples.
- 9. Types of flagella.
- 10. Restriction endonucleases.

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