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

O.P. Code: 564266

Time: Three hours Maximum: 100 marks

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

1. a) Differentiate between Gram positive and Gram negative cell wall with a neat labeled diagram.

- b) Define virus. Explain bacterial growth curve.
- 2. a) What are Mono Clonal antibodies? Explain its methods of preparation and its application.
  - b) Explain the design and construction of the Fermenter.

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

- 1. Hot air oven
- 2. Preparation of diphtheria toxoid
- 3. Factors affecting disinfection
- 4. Bioprocessing of ethanol
- 5. Hyper sensitivity reaction
- 6. Microbiological assay of vitamin  $B_{12}$
- 7. Regulation of gene expression
- 8. Production of Hepatitis B vaccine by rDNA technology

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

- 1. Define immunity
- 2. Examples of killed bacterial vaccine
- 3. Define Biosensor
- 4. Synchronous culture
- 5. Classify Disinfectant
- 6. Use of Western Blot test
- 7. Examples of Motile bacteria
- 8. Define Viable count
- 9. Define Sterilization
- 10. Define Vectors

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