(LM 4266) FEBRUARY 2018 **Sub. Code: 4266**

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

Q.P. Code: 564266

Time: Three hours **Maximum: 100 Marks**

I. Elaborate on: **(2 x 20 = 40)**

1. Define sterilization and describe the different methods of sterilization.

2. a) Define immunity and explain the types of immunity.
   b) Discuss in detail about the hypersensitivity reaction.

II. Write notes on: **(8 x 5 = 40)**

1. Explain the reproduction of fungi.
2. Explain any two methods of evaluation of disinfectants.
3. Describe the production of single cell protein.
4. Explain the production of citric acid by fermentation method.
5. Describe the production of Hepatitis – B vaccine by genetic engineering method.
6. Describe the microbiological assay of Vitamins.
7. Define toxoid and explain the production of toxoid.
8. Explain the applications of Biosensor.

III. Short answers on: **(10 x 2 = 20)**

1. Give the examples for selective and differential media.
2. Bacterial filaments.
3. Define transposable elements.
4. Define transcription and translation process.
5. Origin of replication.
6. Give example for live bacterial vaccine.
7. Define immobilization of enzymes.
8. Organism used for production of glutamic acid.
9. Define primary cell culture.
10. Media used for sterility testing.

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