JAF-1612010701060100 Seat No. _____

M. P. M. (Sem. VI) Examination

November – 2019

Pharmaceutical Microbiology & Biotechnology - II

(Theory)

Time : **3** Hours] [Total Marks : **80**

Instructions :

(1) Answer and tie up both the sections separately,
(2) Figure to the right indicates marks.
(3) Answer any three (03) questions from each section
(4) Question one (1) and questions five (5) are compulsory
(5) Draw neat and clean diagrams as required.

SECTION - I

1 Answer any seven question out of ten, each carry two marks : **7×2=14**

1. Describe the principle of Ames test.
2. Briefly describe transduction.
3. Write a note on Humulin.
4. Describe applications of protoplast fusion.
5. Briefly describe activase.
6. Describe exotoxin briefly.
7. Described briefly: thrombolytic agents.
8. What is the use of dextran and PVP ?
9. Write a note on precipitation reaction.
10. Classify Immunity.

2 Answer the following :

a) Define mutation, Enlist different types of mutation. Enlist different types of mutagenic agents. How mutagenic agents cause mutation. **7**

b) Write a detailed note on recombinant DNA technologies. **6**

3 Answer the following :

a) Write a detailed note on hybridoma technology and Transformation. **7**

b) Described in detail gene expression of eukaryotes. **6**

4 Answer the following :

a) Describe in detail : A) Microbial flora; B) microbial virulence. **7**

b) Describe in detail production and application of antibodies. **6**

SECTION - II

5 Answer any two (2) question from the following, each carry 7 marks : **2×7=14**

a) Write a detailed note on ELISA. Discuss principles of all ELISA techniques.

b) Write a note on allergic reactions.

c) Discuss screening and preservation of microbes for fermentation.

6 Answer the following :

a) Discuss in detail about media used for fermentation. **7**

b) Described in detail : production and recovery of penicillin. **6**

7 Answer the following :

a) Write a detailed note on BCG and TAB. **7**

b) Discuss in detail Antigen - Antibody reactions. **6**

8 Answer the following :

a) Write a detailed note on antibodies. **7**

b) Discuss briefly adaptive immune system. **6**
