UG Even Semester (CBCS) Exam., May—2017

PHARMACEUTICAL SCIENCES

(6th Semester)

Course No. : BPH–609 (C)

(Pharmaceutical Biotechnology)

Full Marks : 75
Pass Marks : 30

Time : 3 hours

The figures in the margin indicate full marks for the questions

Answer **five** questions, taking **one** from each Unit

UNIT—I

1. Discuss different types of antigen-antibody reactions in immunological methods. Write a short note on heptane. 10+5=15

2. *(a)* What are the five different types of hypersensitivity reactions? Discuss each of these with typical examples. 12

(b) Differentiate between T cell and B cell in immune system. 3

UNIT—II

3. *(a)* What do you mean by genetic code? What is the significance of genetic code? 2+3=5

(b) Write the general principle of gene cloning. 10

4. Write notes on the following : 7½+7½=15

(a) PCR

(b) Product of Humulin by rDNA technology

UNIT—III

5. *(a)* Write a note on the different methods for biotransformation. 3

(b) Write down the different types of biotransformation reactions mediated by microorganisms. 12

6. *(a)* What are the criteria for selecting an organism for biotransformation process? 5

(b) Write in brief about the design of biotransformation in steroid synthesis. 10

UNIT—IV

7. *(a)* What do you mean by enzyme immobilization? Write its advantage and disadvantage. 1+2+2=5

(b) Write down the technique of physical adsorption in terms of enzyme immobilization. 10

8. *(a)* What are the different factors affecting enzyme activity? 7

(b) Write a note on amylase. 8

UNIT—V

9. Discuss the collection, processing and storage of whole human blood and concentrated human RBC. 15

10. Describe the collection, processing and storage of human fibrinogen and human thrombin. 15

★ ★ ★