**B. Pharm 6th Semester Examination**

**Subject- Pharmaceutical Biotechnology (BP605T)**

 **Full Marks- 75 Time – 3 hours**

 **Answer all the questions.**

**1. Answer all (10x2=20)**

(a) Define Antigen and Antibody.

(b) What is HAT medium and mention its use?

(c) What are the uses of Protease?

(d) Define genetic code

(e) What is Transcription and Translation.

(f) What do you mean by “Artificially acquired active immunity?

(g) Enlist the methods of Enzyme immobilization.

(h) Mention any two applications of Amylases.

(i) Enlist different types of Hypersensitivity reactions.

(j) Define transposons.

**2. Answer any two questions. (2x10=20)**

(a) Define immunity. Describe the various types of immunity with its applications.

(b) Define genetic engineering. Discuss its principle and applications.

(c) With a neat describe the design of a Fermenter. Describe the method of production of Vitamin B12 by fermentation technology.

(d) Discuss in detail about production of monoclonal antibodies by Hybridoma Technology.

 **3. Answer any seven questions. (7x5=35)**

(a) Write a short note on PCR

(b) Discuss the structure and functions of MHC

(c) Discuss about the structure of Immunoglobulin

(d) Write a short note on Biosensors

(e) Write a short note on ELISA

(f) Discuss about Microbial transformation

(g) Discuss the application of monoclonal antibody

(h) Discuss about the source, manufacture and uses of Penicillinase

(i) Write briefly about r-DNA technology in protein synthesis.

(j) Put a light on storagecondition and stability of official vaccines**.**