

Total No. of Questions :8]

[Total No. of Printed Pages :2

[2]

Roll No

PY-605 (CBGS)**B.Pharmacy VI Semester (Non-PCI Scheme)**

Examination, May 2018

Choice Based Grading System (CBGS)**Pharmaceutical Biotechnology***Time : Three Hours**Maximum Marks : 75**Note:* i) Attempt any five questions.

ii) All questions carry equal marks.

1. a) Describe the term Pharmaceutical Biotechnology? What is the role of biotechnology in the field of pharmaceutical research with suitable examples? rgpvonline.com
b) Give the definition of immobilization? Describe the different methods of immobilization with suitable example.
2. a) Describe the term biosensor. Write the working and application of biosensors used in Pharmaceutical Industry.
b) What is Recombinant DNA technology? Describe the applications of genetic engineering in the pharmaceutical industry.
3. a) Discuss the role of genetic engineering in the production of Vaccine-Hepatitis-B and Hormone-Insulin.
b) Discuss various PCR techniques used along with their application in the field of biotechnology.

PY-605 (CBGS)

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4. a) Write in detail production of monoclonal antibodies by Hybridoma Technology.
b) Explain the difference in Blood Products and Plasma Substitutes.
5. a) Discuss in detail the provisions for the storage and stability conditions of official Vaccines.
b) Describe the methods of DNA and mRNA detection.
6. a) What is Mutation? Describe the sources of mutation discussing the different types of mutation in detail.
b) What is fermentation process? Discuss the construction, working and control of a large scale industrial fermentor.
7. a) Give detail note on production of Vitamin B12 and Griseofulvin.
b) Write a detail note on (any two):
i) Penicillinase
ii) Peroxidase
iii) Humoral and Cellular immunity
iv) Transduction and Conjugation
8. a) Discuss in detail the various steps involved in gene cloning technology.
b) Define hypersensitivity and explain the various types of hypersensitivity reactions in detail with suitable examples.

PY-605 (CBGS)