



VI Semester B.Sc. Examination, May/June 2018
(CBCS)

(Fresh+Repeater) (2016-17 and Onwards)
BIOCHEMISTRY (Paper – VIII)

Time : 3 Hours

Max. Marks : 70

- Instructions :**
- i) The question paper has two Parts; Part – A and Part – B.
 - ii) Answer only **eight** questions from Part – A.
 - iii) Answer **any nine** questions from Part – B.

PART – A

Answer **any eight** of the following. **Each** question carries **two** marks. (8×2=16)

1. What is submerged fermentation ?
2. How does formaldehyde brings sterilization ?
3. Name the factors influencing microbial growth.
4. What is immuno agglutination reaction ?
5. What is molecular blotting ? Give an example.
6. Mention any two applications of microarrays.
7. What are attenuated vaccines ? Give an example.
8. What are the functions of Natural Killer (NK) cells ?
9. Define epitope.
10. Mention the silent features of plasmids.
11. What is the role of DNA ligase in genetic engineering ?
12. Define gene cloning.





PART – B

Answer **any nine** of the following questions. **Each** question carries **six** marks.

(9×6=54)

13. a) How is microbial growth measured ?
b) Name any two methods of microbes preservation. (4+2)
14. a) Describe the batch method of fermentation.
b) How does ultrasonics brings sterilization ? (4+2)
15. a) Explain the production of biofuels by microbial fermentation.
b) How are microorganisms isolated by streak plate method ? (4+2)
16. a) Write the principle and any two applications of Western blotting.
b) Write the principle of immunoelectrophoresis. (4+2)
17. a) Write the principle and any two applications of Fluorescent in Situ hybridization technique.
b) Comment on immuno precipitation reaction. (4+2)
18. a) Mention the principle and applications of autoradiography.
b) Name any two types of PCR. (4+2)
19. a) Describe the structure of IgG with neatly labelled diagram.
b) How are immunoglobulins classified ? (4+2)
20. a) Discuss the role of Major Histocompatibility Complex (MHC) proteins.
b) What is allergic reaction ? (4+2)
21. a) Explain the antigen-antibody reaction.
b) Mention any two antigenic properties. (4+2)
22. a) Explain the introduction of recombinant DNA into host cell by transformation.
b) What is electroporation ? (4+2)





23. a) Mention any two characteristic features of cosmids. What are there advantages ?
b) What are DNA modifying enzymes ? Give an example. (4+2)
24. a) Outline the process of creating gene library.
b) Write any two applications of cDNA library. (4+2)
25. a) List out the various tools used in recombinant DNA technology.
b) What are monoclonal antibodies ? (4+2)
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