



PART - B

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

(9×6=54)

13. a) Describe the industrial production of biofuels.
b) How is pure culture isolated by dilution plating method ? (4+2)
14. a) Explain the mechanism of action of alcohol in sterilization.
b) What is lyophilization ? (4+2)
15. a) Explain different ways of measuring microbial growth.
b) What is solid state fermentation ? (4+2)
16. a) Write the principle of northern blotting. Mention any two applications of blotting.
b) Mention any two types of PCR. (4+2)
17. a) Describe the principle and application of FISH.
b) Give the advantages of ELISA. (4+2)
18. a) Mention the principle and application of autoradiography.
b) What are primers ? (4+2)
19. a) Explain the mechanism of humoral immune response.
b) Mention the role of mast cells and dendritic cells. (4+2)
20. a) Explain the physiological role of MHC proteins.
b) What are vaccines ? Mention its types. (4+2)
21. a) Describe the mechanism of type I hypersensitivity.
b) Mention any two functions of IgM. (4+2)
22. a) Describe the phagocytic mechanism of innate immune response.
b) Mention the origin of T and B lymphocytes. (4+2)
23. a) Describe the selection of transformants by colony hybridization.
b) Give the role of DNA polymerase in RDT. (4+2)
24. a) Outline the construction of cDNA libraries.
b) What are cosmids ? (4+2)
25. a) Explain the features of an ideal host.
b) Mention the tools used in recombinant DNA technology. (4+2)





SE – 165

VI Semester B.Sc. Examination, September 2020
(CBCS) (F+R) (2016-17 and Onwards)
BIOCHEMISTRY – VIII

Time : 3 Hours

Max. Marks : 70

- Instructions :** i) This question paper has **two** Parts : Part – A, Part – B.
ii) Answer **any 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. How does dry heat bring about sterilization ?
2. Give two advantages of fed batch culture.
3. What is immobilization of microbes ?
4. Mention any two methods of microbial preservation.
5. What is hybridization ? Mention its types.
6. Give any two applications of microarrays.
7. Write the principle of immunoelectrophoresis.
8. What is agglutination reaction ?
9. Define antigenicity and immunogenicity.
10. What is insertional inactivation ?
11. Comment on attenuated vaccine.
12. What is electroporation ?



P.T.O.