



বিদ্যাসাগর বিশ্ববিদ্যালয়
VIDYASAGAR UNIVERSITY
Question Paper

B.Sc. Honours Examinations 2022
(Under CBCS Pattern)
Semester - IV
Subject: BIOTECHNOLOGY
Paper : SEC 2-T

Full Marks : 25
Time : 2 Hours

*Candidates are required to give their answer in their own words as far as practicable.
The figures in the margin indicate full marks.*

(Molecular Diagnostics)

Group - A

Answer any **two** questions from the following : 5×2=10

1. Write a short note on use of polyclonal and monoclonal antibodies in enzymes immune assays (ELISA). 5
2. Describe the principles and applications of RFLP. 5
3. What are the applications of flow-cytometry in clinical practice ?

Group - B

Answer any **one** question from the following. 15×1=15

1. What is meant by manual and automated antibiotic susceptibility testing ? Explain with suitable examples.

What is antistreptolysin (ASO) test ?

What is role of 16S rRNA in bacterial identification.

8+4+3

2. Write a short note on homogeneous and heterogeneous enzyme immunoassay. Write a short note on Automated procedures for antimicrobial susceptibility tests. What are transgenic animals ? Write a short note on Electron microscopy.

4+5+2+4

Or,

(Basics of Forensic Science)

Group - A

Answer any *two* questions from the following :

5×2=10

1. Write a short note on classification of injuries and their medico-legal aspects. 5
2. Write the principles of forensic science. What are the different branches of forensic science ? 3+2
3. Discuss the principles of DNA fingerprinting. 5

Group - B

Answer any *one* question from the following.

15×1=15

1. Discuss the role of modus operandi in criminal investigation. Discuss the classification of fire arms and explosives. Describe the classification of fingerprint. What is e-discovery? 5+5+3+2
2. Discuss the method of assessing various types of deaths. Discuss the application of DNA profiling in forensic medicine. Write a short note on general and individual characteristics of handwriting. What is cyber security ? 5+5+3+2