

Allied- Applied Biochemistry (16SACBT2)

UNIT I

2 MARKS

1. Centrifuge
2. Centrifugal force
3. Rpm
4. Chromogens
5. Types of centrifuge

5 MARKS

1. Explain about the working principle of Centrifuge
2. Explain about the applications of centrifuge

10 MARKS

1. Describe about the types of centrifuge

Unit II

2 MARKS

6. Chromatography
7. Paper chromatography
8. Ascending chromatography
9. descending chromatography
10. Mobile phase
11. TLC
12. HPTLC
13. GC
14. HPLC
15. Column chromatography
16. Ion exchange chromatography
17. Affinity chromatography
18. LC_MS
19. Rf- value
20. Silica gel

5 MARKS

3. Explain about the working principle of Chromatography
4. Account on importance of Gas chromatography
5. Account on the principle of paper chromatography

6. Account on importance of Gas chromatography

7. Account on column chromatography

8. Describe about thin layer chromatography

9. Explain about the working principle of HPLC

10. Explain about the working principle of HPTLC

11. Explain about the working principle of LC-MS

12. Explain about the working principle of Affinity chromatography

13. Explain about the significance of HPLC

14. Explain about the importance of HPTLC

15. Explain about the applications of LC-MS

16. Explain about the applications of Affinity chromatography

10 MARKS

2. Explain in detail about types of chromatography

3. Explain in detail about Ion exchange chromatography

4. Explain in detail about Affinity chromatography

5. Explain about the principle operation and applications of HPLC

6. Explain about the principle operation and applications of LC-MS

7. Explain about the principle operation and applications of Gas chromatography

8. Explain about the principle operation and applications of column chromatography

9. Explain about the principle operation and applications of TLC

10. Explain about the principle operation and applications of paper chromatography

11. Explain about the principle operation and applications of HPLC

UNIT III

2 MARKS

1. Buffers
2. Agarose

3. Electrophoresis
4. Native Electrophoresis
5. Denatured Electrophoresis
6. Supporting Medium/ Matrix
7. Cations/ anions
8. Anode/ Cathode
9. Whatman filter paper
10. Nin hydrin
11. Bromophenol blue
12. Ethidium bromide
13. Polymerization
14. Electrofocusing
15. Isoelectric focusing
16. Transilluminator
17. Taq polymerase
18. Gene amplification
19. PCR
20. Primer
21. Moldi ToF

5 MARKS

1. Explain about the principle of electrofocusing
2. Explain about the applications of iso electrofocusing
3. Explain about the working methodology of electrofocusing
4. Explain about the principle of Native electrophoresis
5. Explain about the applications of electrophoresis
6. Explain about the working methodology of 1D-electrophoresis
7. Explain about the principle of 1D-electrophoresis
8. Differentiate between 1D & 2D Electrophoresis
9. Explain about the working methodology of electrophoresis
10. Explain about the principle of PCR
11. Explain about the applications of PCR
12. Explain about the working mechanism of PCR

10 MARKS

1. Explain about the types of PCR
2. Explain about the principle, working mechanism and applications of PCR
3. Explain about the principle, working mechanism and applications of Electrophoresis
4. Explain about the principle, working and applications of isoelectrofocusing
5. Explain about the principle, working and applications of 1D & 2D Electrophoresis

UNIT IV

2 MARKS

1. Colorimeter
2. Visible spectrume
3. Beer's law
4. Lambert's law
5. Spectrometer
6. Rayleigh band
7. Rayleigh peak
8. Polarization
9. AAS
10. Diffraction
11. X-ray diffraction
12. Photometer
13. Fluorescence
14. ELISA
15. Chromagens
16. Flourimeter
17. Antigen- antibody complex
18. BSA
19. Energy
20. Monochromator
21. Wavelength
22. Optical density
23. Raman effect

5 Marks

1. Illustrate about the instrumentation of Colorimeter
2. Describe about the working principle of Colorimeter

3. Describe about the instrumentation of Spectrometer
4. Describe about the working principle of Spectrometer
5. Illustrate about the instrumentation of UV visible Spectrometer
6. Describe about the working principle of UV visible Spectrometer
7. Describe about the applications of UV visible Spectrometer
8. Describe about RAMAN effect
9. Describe about the working principle of X-ray Spectrometer
10. Describe about the working principle of Atomic Absorption Spectrometer
11. Illustrate about the working principle of Flame photometer
12. Describe about the applications of Flame photometer
13. Describe about the working principle of Spectro fluorimeter
14. Describe about the applications of Spectro fluorimeter
15. Describe about the working principle of Fluorimeter
16. Describe about the applications of Fluorimeter
17. Illustrate about the working principle of Fluorimeter
18. Describe about the applications of Fluorimeter
19. Illustrate about the working principle of ELISA reader
20. Describe about the applications of ELISA reader

10 Marks

1. Explain in detail about ELISA Reader
2. Explain in detail about the working principle and application of Colorimeter
3. Explain in detail about the working principle and application of Spectrometer

4. Explain in detail about the working principle and application of U.V. visible Spectrometer
5. Explain in detail about the working principle and application of X-ray Spectrometer
6. Explain in detail about the working principle and application of Atomic Absorption Spectrometer
7. Explain in detail about the working principle and application of Flame photometer
8. Explain in detail about the working principle and application of Fluorimeter
9. Explain in detail about the working principle and application of Spectro fluorimeter

UNIT V

2 MARKS

1. What is crystallography
2. What is Braggs law?
3. What is X-ray Diffraction?
4. What is Ramachandran Plot?
5. Give any 2 application of X-ray Crystallography?
6. What is Miler index?
7. What is Unit cell?
8. Define Crystal growth?
9. Define Microdialysis?
10. What is goniometer?

5 MARKS

1. Explain about miler index.
2. Explain about X-ray diffraction?
3. Explain about X-ray crystallography?
4. Write about principle of X-ray crystallography?
5. Write about application of X-ray Crystallography?

10 MARKS

1. Explain in detail about miler index and Unit Cell?
2. Explain in detail about X-ray crystallography?