

NOVEMBER 2017

1709118/UBYM53A

Time : Three hours

Maximum : 75 marks

SECTION A — (10 × 2 = 20 marks)

Answer any TEN questions.

Each questions carries 2 marks.

1. Define Molarity.
2. Define Isoelectric P^H.
3. What is Svedberg unit?
4. List few common gradient materials used in density gradient centrifugation.
5. What kind of mobile phases are used in paper chromatography?
6. Define R_f value.
7. Define the term electrophoresis.
8. Give the applications of paper electrophoresis.
9. How wavelength is connected to wave number?
10. What is meant by hyperchromicity?
11. State Beer Lambert's law.
12. Mention the different types of buffers present in blood.

SECTION B — (5 × 5 = 25 marks)

Answer any FIVE questions.

Each questions carries 5 marks.

13. Derive Henderson Hasselbalch equation.
14. With a neat diagram explain the principle of Swinging bucket rotor.
15. How aminoacids and Sugars are detected by TLC?
16. Write notes on Tiselius moving boundary electrophoresis.
17. Give an account Isopycnic centrifugation technique.
18. Explain the steps involved in estimation of riboflavin by Spectrofluorimetry.
19. Discuss in short the factors that affect the resolution of column chromatography.

SECTION C — (3 × 10 = 30 marks)

Answer any THREE questions.

Each questions carries 10 marks.

20. Explain in detail about the measurement of oxygen consumption by Clark oxygen electrode.
21. How Sub cellular organelles are fractioned by differential centrifugation? Discuss.

22. Describe the principle, sample application and development of ascending paper chromatography.
 23. Discuss elaborately in principle, procedure and application of paper electrophoresis.
 24. Give an account on the instrumentation and application of Spectrophotometry.
-

