

THE APOLLO UNIVERSITY
Saketa, Chittoor, AP
AHS- IV Semester End Examination, June, 2024
PAPER -III – RDTT 2506 – INSTRUMENTATION IN DIALYSIS
TECHNOLOGY

Time: 3 hours

Max. Marks: 60

Section –A (10x2=20 marks)
Answer all Questions with Short Answers

1. Differentiate arterial and venous sections of the blood tube.
2. Differentiate the colours of indication lights in the hemodialysis machine.
3. What is the representation of the symbols square and circle related to the dialysate proportioning ratio?
4. What is the use of bypass function in dialysate delivery during dialysis?
5. Differentiate Voltage and current.
6. Differentiate conductivity and resistance
7. Write a note on the sand filter and carbon filter.
8. What is the importance of conductivity monitoring of Water used for Haemodialysis?
9. What is invasive blood and non-invasive blood pressure monitoring?
10. When do we need to use a defibrillator?

Section –B (5X8=40 marks)
Answer all Questions either A or B in 400 words each

11. A) Describe the alarms in the HD machine and differentiate the External alarms and dialysate alarms.

OR

B) Describe the functioning of Haemodialysis machine.
12. A) Explain the steps of APD.

OR

B) Write on Deaeration system, blood leak detector, bypass function and ultrafiltration control system.

13. Explain the various electronic components used in dialysis equipment.

OR

B) Comment and explain on a) Integrated circuit chip b) Voltage regulators c) Microprocessors d) Memory in electronic devices.

14. A) Describe the principle and mechanism of action of the following:

- a) Sand filter
- b) Carbon filter
- c) Softener
- d) Reverse osmosis system.

OR

B) What are the methods used to treat the water for haemodialysis unit? Explain?

15. A) Discuss about Defibrillator and differentiate it with AED.

OR

B) Write on fumigation and different chemicals used for it.
