

**VINAYAKA MISSION'S RESEARCH FOUNDATIONS, SALEM  
(Deemed to be University)**

**B.Sc. (Perfusion Technology) DEGREE EXAMINATION  
August 2018  
Second Year**

**INTRODUCTION TO PERFUSION TECHNOLOGY**

Time: Three hours

Maximum: 75 marks

**I. Write an essay on any ONE of the following: (1 x 20 = 20)**

1. State the various types of blood pumps known to you.
2. Write about the different types of membrane oxygenators.

**II. Write short notes on any TWO of the following: (2 x 10 = 20)**

3. The tubings used in CPB circuit.
4. Describe azygous flow principle and its significance.
5. Write an essay on cardioplegia delivery systems.
6. Describe bubble oxygenators.

**III. Write short answers on any SEVEN of the following: (7 x 5 = 35)**

7. Who discovered blood circulation, blood grouping and heparin?
8. Describe cardiotomy and vent suction.
9. What are the laboratory investigations done on CPB?
10. What is meant by an ideal pump?
11. Define Henderson-Hasselbalch equation.
12. Write about the cardiac surgical team.
13. What was controlled cross-circulation and who first did it?
14. Write about arterial and venous cannulae.
15. What is a heat exchanger?
16. What is a pressure transducer, where are they used?