

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

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

PERFUSION TECHNOLOGY - CLINICAL

Time: Three hours

Maximum: 75 marks

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

1. Write an essay on priming fluids. The merits and demerits of haemodilution.
2. Write an essay on cardioplegia and myocardial protection.

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

3. The principles on which heat exchangers function.
4. How will you come off bypass? Methods allowed.
5. What do you know about pulsatile perfusion?
6. Differentiate between bubble and membrane oxygenators.

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

7. How are coated oxygenators helpful?
8. Mention some drugs used by clinical perfusionists in CPB.
9. How are non-cardioplegic surgical methods performed in CPB.
10. What is reperfusion injury? How can it be managed?
11. Write short notes on hypothermia.
12. What are the various types of membrane oxygenators?
13. What are the normal cannulation sites?
14. Write notes on mannitol.
15. What are the additives that are used with cardioplegia?
16. How is capillary blood flow affected during CPB?