

**Q.P.Code:301016**

**REG. No:.....**

**Third Year B.Sc Perfusion Technology Degree Examinations July 2018**

**Perfusion Technology - Clinical**

**Time: 3 hrs**

**Max. Marks:- 100**

- *Answer all the questions*
- *Draw diagrams wherever necessary*

**Essays:**

**(2x15=30)**

1. Describe the indications of total circulatory arrest. What are the advantages and disadvantages. What are the safeguards taken during the period of deep hypothermic circulatory arrest.
2. Why anticoagulation is required in CPB. What are the drugs used for anticoagulation in CPB. Mention the congeners of heparin and their advantages. What is protamine and describe the various types of protamine reactions.

**Short notes:**

**(5x7=35)**

3. Describe the various arterial cannulation strategies in CPB
4. Low cardiac output
5. Compare and contrast conventional and modified ultrafiltration
6. Effect of CPB on kidneys
7. Retrograde cerebral protection

**Answer briefly:**

**(7x5=35)**

8. Lignocaine
9. Prothrombin time
10. Cardioplegia for heart transplant
11. IABP
12. ECMO oxygenator
13. Cerebral oxymetry
14. Heat exchangers

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