

Q.P. Code: 311016

Reg. No:.....

**Third Year B.Sc Perfusion Technology Degree Regular/Supplementary
Examinations December 2025**

Perfusion Technology – Clinical

(2016 Scheme)

Time: 3 hrs

Max. Marks: 100

- *Answer all questions to the point neatly and legibly • Do not leave any blank pages between answers • Indicate the question number correctly for the answer in the margin space*
- *Answer all parts of a single question together • Leave sufficient space between answers*
- *Draw table/diagrams/flow charts wherever necessary*

Essays:

(2x15=30)

1. Describe the various components of cardiopulmonary bypass circuit. Discuss the safe initiation, conduct and termination of CPB. Write down the safety checklists used in cardiopulmonary bypass.
2. What is an ideal blood pump. Pulsatile Vs non pulsatile perfusion, compare and contrast roller Vs centrifugal pumps.

Short notes:

(5x7=35)

3. Arterial blood gas analysis during CPB.
4. Delnido cardioplegia.
5. Describe the advantages and disadvantages of pulsatile perfusion.
6. Sources of emboli during cardiopulmonary bypass and management of massive air embolism in arterial line.
7. Left heart bypass- indications and strategies.

Answer briefly:

(7x5=35)

8. Atrial well technique.
9. CPB Issues in minimally invasive cardiac surgery.
10. Modified ultrafiltration.
11. Drugs for cerebral protection during total circulatory arrest.
12. Frusemide.
13. Methods to improve venous drainage during CPB.
14. Pump- lung syndrome.
