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P007
July-2026

BLDE (DEEMED TO BE UNIVERSITY)

B.Sc. in Cardiac Perfusion Technology

[Time: 3 Hours]

[Max. Marks: 80]

V SEMESTER

PAPER - I (Perfusion Technology Clinical Paper I)

QP CODE: 8560

Your answer should be specific to the questions asked.

Write Question No. in left side of margin.

Long Questions

10X1 = 10 Marks

1. Describe the conduct and monitoring of cardiopulmonary bypass, including problems associated with it.

Short Essays: (Any – 8)

5 X 8 = 40 Marks

2. Adequacy of perfusion – monitoring and clinical aspects.
3. Pulsatile perfusion – hemodynamic effects.
4. Explain Stress Echocardiography.
5. Termination of CPB – methodology.
6. Myocardial protection – non-cardioplegic methods.
7. Heat exchangers – complications and management.
8. Priming fluids – clinical importance.
9. Hematological effects of pulsatile perfusion.
10. Hemodynamic monitoring on CPB – methodology.

Short Answers: (Any – 10)

3 X 10 = 30 Marks

11. Define CPB.
12. Mention two monitoring parameters during perfusion.
13. List two complications of cardioplegia.
14. What is hypothermia used for?
15. Define bubble oxygenator.
16. State two principles of myocardial protection.
17. List two types of priming fluids.
18. Mention two haematological effects of CPB.
19. Define pulsatile flow.
20. List two clinical uses of oxygenators.
21. What is controlled reperfusion?

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B.Sc. in Cardiac Perfusion Technology

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V SEMESTER

PAPER - II (Perfusion Technology Clinical Paper II)

QP CODE: 8561

Your answer should be specific to the questions asked.

Write Question No. in left side of margin.

Long Questions

10X1 = 10 Marks

1. Termination of cardiopulmonary bypass

Short Essays: (Any – 8)

5 X 8 = 40 Marks

2. Adequacy of perfusion during CPB
3. Bubble vs. membrane oxygenators
4. Hemofiltration methods
5. Electrolyte response in CPB
6. Immune response in CPB
7. Pulmonary complications during CPB
8. Stent implantation techniques
9. Contraindications and complications of PTCA
10. Guidewires: composition and types

Short Answers: (Any – 10)

3 X 10 = 30 Marks

11. Clinical effects of blood cell trauma
12. Complications of anticoagulation reversal
13. Hematological effects of pulsatile perfusion
14. Filters for emboli prevention
15. Controlled reperfusion
16. Assist devices in CPB
17. IABP physiologic principles
18. IABP insertion errors
19. Troubleshooting IABP
20. Balloon removal complications
21. Isolator Dome