

Q.P. CODE: -----

Reg. No:

Third Year B.Sc Perfusion Technology Degree Examinations, September 2015

Paper-I Perfusion Technology Clinical

Time: 3 Hrs

Max. Marks: 100

*Answer all questions
Draw diagram wherever necessary*

Essays:

(2×15=30)

1. A 62 years old man was diagnosed to have triple vessel disease. His height is 165cm, and weight 80 Kg. How will you proceed to conduct and monitor cardio pulmonary bypass?

2. Discuss the principles and methodology for termination of cardio pulmonary bypass.

Short notes:

(5×7=35)

3. Pulsatile flow.

4. Cardioplegia.

5. Priming Fluids.

6. Complications of heat exchanger and its management.

7. Haemodilution.

Answer briefly:

(7×5=35)

8. Changes in Drug Pharmacokinetics due to CPB.

9. Controlled reperfusion.

10. Myocardial protection.

11. Bubble oxygenators.

12. Non -cardioplegic methods during cardiac surgery on CPB.

13. Adequacy of perfusion.

14. Amidarone.

Q.P. CODE: -----

Reg. No:

Third Year B.Sc Perfusion Technology Degree Examinations, September 2015

Paper-II Perfusion Technology .Applied

Time: 3 Hrs

Max. Marks: 100

*Answer all questions
Draw diagram wherever necessary*

Essays:

(2×15=30)

1. Discuss in detail inflammatory responses during cardiopulmonary bypass & its clinical effects. What are the methods to minimise them?

2. Discuss the principles of anticoagulation on cardio pulmonary bypass. How will you monitor and reverse heparin effect. What are its complications?

Short notes:

(5×7=35)

3. Modified ultra filtration.

4. Methods of blood conservation during cardiopulmonary bypass.

5. Priming fluids.

6. IABP.

7. Coagulopathies during CPB and its management.

Answer briefly:

(7×5=35)

8. Prevention & treatments of Acute Lung Injury in CPB.

9. Thrombo elastogram.

10. Aprotinin.

11. Unusual problems in CPB.

12. Bivalirudin.

13. Management of protamine reaction.

14. Complications of blood transfusion.

Q.P. CODE: -----

Reg. No:

Third Year B.Sc Perfusion Technology Degree Examinations, September 2015

Paper-III Perfusion Technology. Advanced

Time: 3 Hrs

Max. Marks: 100

*Answer all questions
Draw diagram wherever necessary*

Essays:

(2×15=30)

1. Discuss the indications, contra-indications and complications associated with ECMO.
2. What are the complications during CPB? Describe how you will manage each complication.

Short notes

(5×7=35)

3. Perfusion for minimally invasive cardiac surgery
4. Uses of CPB in non cardiac surgery
5. Special considerations in perfusion during cardiac surgery in infants.
6. Spinalcord protection in aortic surgery.
7. Recent advances in perfusion techniques.

Answer briefly:

(7×5=35)

8. Measures to improve cardiac surgery teamwork.
9. Left heart bypass.
10. Myocardial protection and preservation for neonates and infants.
11. Milrenon.
12. Coronary angiogram.
13. Deep hypothermic circulatory arrest.
14. Non cardiac uses of CPB.