

POST-DOCTORAL DEGREE EXAMINATION – AUGUST 2022

D.M. CARDIAC ANAESTHESIA

Time: 3 Hours

Max. Marks: 100

PAPER – I
Basic Sciences

Q.P. Code: 1525

Answers should be specific to the Questions asked.
Draw neat, labeled diagrams wherever necessary.
All questions are compulsory.

Question Number

Marks

ESSAY QUESTIONS:

10 X 10 = 100

1. Coronary artery anomalies in cyanotic congenital heart disease.
2. Alpha stat versus pH stat.
3. Myocardial preservation during Cardiopulmonary bypass (CPB).
4. Assessment of diastolic function by echocardiogram.
5. Risk assessment in congenital cardiac surgery.
6. Mention arterial cannulation sites used for haemodynamic monitoring.
Mention significance of these sites in various surgical situations.
7. Thromboelastography (TEG).
8. Measurement of tissue oxygenation.
9. Single ventricle physiology.
10. Ventilation perfusion-match or mismatch.

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PAPER – II
Clinical Practice of Anaesthesia

Q.P. Code: 1526

Answers should be specific to the Questions asked.

Draw neat, labeled diagrams wherever necessary.

All questions are compulsory.

Question Number

Marks

ESSAY QUESTIONS:

10 X 10 = 100

1. Anesthesia for Truncus arteriosus.
2. Anesthesia for tracheal resection.
3. Management of heart transplantation.
4. Anesthesia management of arch aneurysm.
5. Anesthesia management of VATS (Video Assisted Thoracoscopic Surgery).
6. Anesthesia management of Fontan procedure.
7. Ebsteins anomaly.
8. Anesthesia for pulmonary endarterectomy.
9. Discuss inhaled anaesthetics and their effect on the myocardium.
10. Anaesthesia management of ventricular septal rupture.

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**PAPER – III
Allied Sciences**

Q.P. Code: 1527

Answers should be specific to the Questions asked.
Draw neat, labeled diagrams wherever necessary.
All questions are compulsory.

Question Number

Marks

ESSAY QUESTIONS:

10 X 10 = 100

1. Anesthesia for PDA device closure.
2. Cardiopulmonary exercise testing.
3. Left ventricle sequential assessment by echocardiogram.
4. Sequential weaning from CPB.
5. Management of Perioperative atrial fibrillation.
6. Management of perioperative myocardial ischemia.
7. Inhaled Nitric Oxide (INO).
8. Spinal cord protection during abdominal aortic surgery.
9. Organ protection during CPB.
10. Levosimendan versus IABP in the perioperative period.

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D.M. CARDIAC ANAESTHESIA

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**PAPER – IV
Recent Advances**

Q.P. Code: 1528

Answers should be specific to the Questions asked.
Draw neat, labeled diagrams wherever necessary.
All questions are compulsory.

Question Number

Marks

ESSAY QUESTIONS:

10 X 10 = 100

1. Monitoring during mechanical ventilation.
2. Postoperative management of right heart failure.
3. Total parenteral nutrition.
4. Tissue Doppler imaging and its use in inference of LV function.
5. Left Ventricular Assisted Device (LVAD).
6. Central and mixed venous oxygen saturation.
7. Defibrillation and cardioversion.
8. Use of trans thoracic echocardiography in ICU.
9. Treatment of Hyponatremia.
10. Inability to wean from mechanical ventilation in high risk cardiac surgery.
