

MANIPAL UNIVERSITY**M.Ch. (CARDIO VASCULAR AND THORACIC SURGERY) DEGREE EXAMINATION – JULY 2009****SUBJECT: PAPER I: BASIC SCIENCES**

Wednesday, July 01, 2009

Time: 14:00 – 17:00 Hrs.

Max. Marks: 100

✍ **All questions carry TEN marks each.**

1. Write a short note with diagram of embryology of Inter Atrial Septum.
2. Draw labelled diagrams to show the Segmental Anatomy of Lungs.
3. Describe in short the Damaging Effects of Circulatory Arrest during Hypothermia.
4. Describe in short the Response of Cardio Pulmonary Bypass on Coagulation System.
5. Describe in short the Cardio Pulmonary Bypass Established by Peripheral Cannulation.
6. Describe in short the methods of Myocardial Management during Open Heart Surgery.
7. Describe in short the Monitoring during Cardio Pulmonary Bypass.
8. Describe in short the Causes of Low Cardiac Output after Cardiac Surgery.
9. Describe in short the protocol for Intravenous Fluids management in infants and small children (<2 years old or <13 kg in weight) after Open Heart Surgery.
10. Describe the Murmur of Mitral Stenosis in Normal Sinus Rythn and Atrial Fibrillation with Phono Cardiographic Diagram.



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M.Ch. (CARDIO VASCULAR AND THORACIC SURGERY) DEGREE EXAMINATION – JULY 2009

SUBJECT: PAPER II: THORACIC AND ACQUIRED HEART DISEASES

Thursday, July 02, 2009

Time: 14:00 – 17:00 Hrs.

Max. Marks: 100

☞ All questions carry TEN marks each.

1. Write a short note on Dysphagia Lusoria and make diagrams to show the development of Oesophagus.
2. Write a short note on management of Carcinoma of Lower Third of Oesophagus and describe the steps of Trans-hiatal Oesophagectomy.
3. Write a short note on Rolling Diaphragmatic Hernia and describe the Embryology of Diaphragm.
4. Enumerate the indications of Surgery in Pulmonary Tuberculosis and describe the steps of Right Upper Lobectomy.
5. Enumerate the approaches for the operation of Cervical Rib and describe one in detail.
6. Give a brief description of causes of Chylothorax and its surgical management.
7. Make a diagram of Pericardial Reflection and write a short note on Childhood Pericarditis.
8. Write a short note on Bentall operation and also give a brief description of Cabrol modification.
9. Describe various Anuloplasty Rings used for Mitral Valve Repair and show with diagram one of the technique of repair of Isolated prolapse of Interior Mitral Leaflet due to ruptured Chordae.
10. Compare and contrast in tabular form the relative merits and demerits of CABG with Cardio Pulmonary Bypass and Off Pump Coronary Artery Bypass.



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Friday, July 03, 2009

Time: 14:00 – 17:00 Hrs.

Max. Marks: 100

All questions carry TEN marks each.

1. Explain with diagram different types of Atrial Septal Defects and describe the technique of repair of ASD with Anomalous Connection of Right Pulmonary Veins to Right Atrium.
2. Diagrammatically explain the types of Total Anomalous Pulmonary Venous Connection. Show the technique of operation of any one of them with suitable diagrams.
3. Describe the morphology of Cor Triatriatum with diagrams.
4. Describe the clinical features of Patent Ductus Arteriosus and explain with diagram the technique of repair of Hypertensive Ductus.
5. Describe the types of Ventricular Septal Defects. Give a brief description of the clinical features. Explain Heath Edwards Classification of Pulmonary Vascular Disease Pathology.
6. What is the embryological basis of Tetralogy of Fallot? Enumerate the indications of angiography in a case of TOF. Describe one of the techniques of its intra cardiac repair with diagrams.
7. Describe clinical features and investigations in a case of Coarctation of the Aorta and make diagram to show one of the techniques for its repair.
8. Write a short note on the anomaly of Complete Transposition of the Great Arteries and draw diagrams to show the Atrial Switch Operation (Senning Technique).
9. Describe in short the anomaly of Double Outlet Right Ventricle.
10. Give a brief description of Congenitally Corrected Transposition of the Great Arteries.



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Saturday, July 04, 2009

Time: 14:00 – 17:00 Hrs.

Max. Marks: 100

***✍* All questions carry TEN marks each.**

1. Write a short note on clinical applications of Radionuclide Studies of the Lung. Describe the findings in Pulmonary Embolism.
2. Write a short note on Surgical treatment on Atrial fibrillation.
3. Discuss the surgical options in Bullous Emphysema.
4. Discuss the advantages of Robotic Surgery and its currently accepted clinical applications.
5. Role of VATS in Pleural diseases.
6. Role of Gene Therapy in Ischemic Heart Disease.
7. Compare the techniques of management of Mediastinitis using Topical Negative Pressure Therapy vs its Classical Treatment.
8. Discuss the current status of Hybrid procedures for Lower Limb Ischemia.
9. Describe briefly the use of immunosuppressant after Heart Transplant.
10. Write a brief note on Parasitic diseases of Heart.

