

MANIPAL UNIVERSITY**M.Ch. (CARDIO VASCULAR AND THORACIC SURGERY)
DEGREE EXAMINATION – JULY 2016****SUBJECT: PAPER I: BASIC SCIENCES**

Wednesday, July 13, 2016

Time: 14:00 – 17:00 Hrs.

Max. Marks: 100

✍ **Answer ALL the questions.**

✍ **Long Essay:**

1. Describe the surgical anatomy of the coronary Sinus. Outline the procedure of retrograde coronary sinus perfusion.

(20 marks)

2. Describe the Anatomy of the Trachea and discuss management of benign tracheal stenosis.

(20 marks)

3. **Short Essay:**

3A. Levosimendan

3B. Membrane Oxygenator

3C. Development of inter ventricular septum

3D. Swan Ganz catheter and its uses

3E. Rigid bronchoscope

3F. Virchow's triad

(10 marks × 6 = 60 marks)



MANIPAL UNIVERSITY**M.Ch. (CARDIO VASCULAR AND THORACIC SURGERY)
DEGREE EXAMINATION – JULY 2016****SUBJECT: PAPER II: CONGENITAL HEART SURGERY**

Thursday, July 14, 2016

Time: 14:00 – 17:00 Hrs.

Max. Marks: 100

✍ **Answer ALL the questions.**

✍ **Long Essay:**

1. Discuss the classification, clinical features and management of Transposition of Great Arteries.

(20 marks)

2. Describe the embryology and anatomy of complete vascular rings causing trachea-esophageal compression and management.

(20 marks)

3. **Short Essay:**

3A. Cyanotic spells - etiology, clinical features, management

3B. Classification of Tricuspid Atresia

3C. Norwood procedure- Indication and technique

3D. Absent pulmonary valve syndrome - clinical features, diagnosis, surgery

3E. Ebstein anomaly - morphology, diagnosis and treatment

3F. Surgery for supra-aortic stenosis discuss one technique briefly

(10 marks × 6 = 60 marks)



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MANIPAL UNIVERSITY

M.Ch. (CARDIO VASCULAR AND THORACIC SURGERY) DEGREE EXAMINATION – JULY 2016

SUBJECT: PAPER III: ACQUIRED HEART DISEASE, GREAT ARTERIES, THORACIC

Friday, July 15, 2016

Time: 14:00 – 17:00 Hrs.

Max. Marks: 100

✍ **Answer ALL the questions.**

✍ **Long Essay:**

1. Describe the surgical techniques of Tricuspid valve repair and merit / demerits of each technique.

(20 marks)

2. Classify bronchiectasis and discuss the clinical features, diagnosis and management.

(20 marks)

3. **Short Essay:**

3A. Management of Acute Aortic regurgitation – clinical features and treatment

3B. Discuss the various approaches for Mitral valve surgery

3C. Atrial Myxoma- clinical features and management

3D. Classification of Aortic dissection

3E. Advantages and disadvantages of off pump coronary artery bypass surgery

3F. Enumerate causes for continuous cardiac murmurs briefly describe one of them

(10 marks × 6 = 60 marks)



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MANIPAL UNIVERSITY

M.Ch. (CARDIO VASCULAR AND THORACIC SURGERY)

DEGREE EXAMINATION – JULY 2016

SUBJECT: PAPER IV: RECENT ADVANCES

Saturday, July 16, 2016

Time: 14:00 – 17:00 Hrs.

Max. Marks: 100

✍ **Answer ALL the questions.**

✍ **Long Essay:**

1. Discuss the different strategies for treatment of left ventricular failure after coronary artery bypass surgery.

(20 marks)

2. What are the advantages and implications of robots in cardiac surgery?

(20 marks)

3. **Short Essay:**

3A. Newer Oral anticoagulants

3B. Nitric oxide in pediatric cardiac surgery

3C. Recent advances in heart transplant

3D. Single port Video assisted thoracoscopic surgery

3E. Extra corporal life support. (ECLS)

3F. Advances in treatment of Atrial Fibrillation

(10 marks × 6 = 60 marks)

