

MANIPAL ACADEMY OF HIGHER EDUCATION
DM (CARDIOLOGY) DEGREE EXAMINATION – JULY 2019
SUBJECT: PAPER I: BASIC SCIENCES

Tuesday, July 09, 2019

Time: 14:00 – 17:00 Hrs.

Max. Marks: 100

✍ Answer ALL the questions.

✍ Long Essay

1. Discuss Anatomy and Physiology of normal coronary artery circulation in health and disease.
(20 marks)
2. Discuss Foetal Circulation.
(20 marks)
3. Write short notes on:
 - 3A. Clinical morphology of the RV outflow tract
 - 3B. Genetics of hypertrophic cardiomyopathy
 - 3C. What is Laplace law? Describe its clinical application
 - 3D. Lipoprotein a
 - 3E. Newer oral anticoagulant
 - 3F. Short QT syndrome

(10 marks × 6 = 60 marks)



MANIPAL ACADEMY OF HIGHER EDUCATION
DM (CARDIOLOGY) DEGREE EXAMINATION – JULY 2019
SUBJECT: PAPER II: ISCHEMIC HEART DISEASE

Wednesday, July 10, 2019

Time: 14:00 – 17:00 Hrs.

Max. Marks: 100

✍ **Answer ALL the questions.**

✍ **Long Essay:**

1. Discuss the non invasive management options in non ST elevation myocardial infarction.
(20 marks)

2. Discuss the principles, indications, results, complications and technical aspects of rotablation.
(20 marks)

3. **Write short notes on:**
 - 3A. Role of cardiac MRI in myocardial infarction patients
 - 3B. Mitral regurgitation after acute MI
 - 3C. Conduits for CABG
 - 3D. Management of infra renal aortic aneurysms
 - 3E. Athletes heart
 - 3F. Contrast nephropathy

(10 marks × 6 = 60 marks)



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MANIPAL ACADEMY OF HIGHER EDUCATION
DM (CARDIOLOGY) DEGREE EXAMINATION – JULY 2019
SUBJECT: PAPER III: CONGENITAL AND VALVULAR HEART DISEASE

Thursday, July 11, 2019

Time: 14:00 – 17:00 Hrs.

Max. Marks: 100

✍ **Answer ALL the questions.**

✍ **Long Essay:**

1. Eisenmenger's Physiology and its Management (20 marks)

2. Hypoplastic Left Heart Syndrome. Clinical Features and Management (20 marks)

3. **Write short essay on:**
 - 3A. Congenital Complete Heart Block
 - 3B. Fetal Circulation and its difference from Adult Circulation
 - 3C. Anomalous Origin of Left Coronary Artery from Pulmonary Artery
 - 3D. Cyanotic Spell and its Management
 - 3E. Assessment of Operability in Shunt Lesions
 - 3F. Low Flow Low Gradient Aortic Stenosis(10 marks × 6 = 60 marks)



MANIPAL ACADEMY OF HIGHER EDUCATION
DM (CARDIOLOGY) DEGREE EXAMINATION – JULY 2019
SUBJECT: PAPER IV: OTHER CARDIO VASCULAR DISEASES

Friday, July 12, 2019

Time: 14:00 – 17:00 Hrs.

Max. Marks: 100

✍ **Answer ALL the questions.**

✍ **Long Essay:**

1. Discuss about alcohol septal ablation therapy-indications, technique, contraindications and results.

(20 marks)

2. Etiology, clinical features, diagnosis and management of acute pulmonary embolism.

(20 marks)

3. **Write short notes on:**

3A. PFO closure

3B. Pathophysiology, clinical presentation, diagnosis and treatment of Short RP tachycardia

3C. Brugada syndrome

3D. Endovascular stenting for dissection of aorta

3E. Carotid artery stenting

3F. Genotypic variations in the efficacy of clopidogrel

(10 marks × 6 = 60 marks)

