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MANIPAL UNIVERSITY

DM (CARDIOLOGY) DEGREE EXAMINATION – JULY 2017

SUBJECT: PAPER I: BASIC SCIENCES

Monday, July 10, 2017

Time: 14:00 – 17:00 Hrs.

Max. Marks: 100

✍ **Long Essay:**

1. Discuss Mitral valve apparatus in health and disease. (20 marks)

2. Discuss the Cardiac Ion Channels and their role in arrhythmogenesis. (20 marks)

3. **Write short notes on:**

3A. Cardiac pre excitation syndromes

3B. Takayasu arteritis

3C. Right ventricle

3D. Describe the pathology of Aschoff nodules

3E. Development of Cardiac conduction system

3F. LDL metabolism

(10 marks × 6 = 60 marks)



MANIPAL UNIVERSITY**DM (CARDIOLOGY) DEGREE EXAMINATION – JULY 2017****SUBJECT: PAPER II: ISCHEMIC HEART DISEASE**

Tuesday, July 11, 2017

Time: 14:00 – 17:00 Hrs.

Max. Marks: 100

✍ Long Essay:

1. Describe the evaluation and management of diastolic heart failure. (20 marks)
2. Enumerate the techniques of Bifurcation stenting. Discuss any four techniques in detail. (20 marks)
3. **Write short notes on:**
 - 3A. Biomarkers in acute coronary syndrome
 - 3B. Post myocardial infarction risk stratification
 - 3C. Optical coherence tomography-technique, indications
 - 3D. Describe in detail anticoagulation in atrial fibrillation.
 - 3E. Facilitated versus rescue percutaneous coronary intervention in ST elevation myocardial infarction
 - 3F. Current indications and limitations of computed tomographic coronary angiography (10 marks × 6 = 60 marks)



MANIPAL UNIVERSITY**DM (CARDIOLOGY) DEGREE EXAMINATION – JULY 2017****SUBJECT: PAPER III: CONGENITAL AND VALVULAR HEART DISEASE**

Wednesday, July 12, 2017

Time: 14:00 – 17:00 Hrs.

Max. Marks: 100

✍ Long Essay:

1. Discuss the definition, pathophysiology, clinical features, diagnosis and management of hypoplastic left heart syndrome.

(20 marks)

2. Discuss the timing of surgery in chronic mitral and aortic regurgitation and their rationale.

(20 marks)

3. Write short notes on:

3A. Congenital mitral valve disease

3B. Low gradient aortic stenosis

3C. Double chambered right ventricle

3D. Bioprosthetic valves

3E. Pulmonary AV fistula

3F. Sub aortic stenosis

(10 marks × 6 = 60 marks)



MANIPAL UNIVERSITY

DM (CARDIOLOGY) DEGREE EXAMINATION – JULY 2017

SUBJECT: PAPER IV: OTHER CARDIO VASCULAR DISEASES

Thursday, July 13, 2017

Time: 14:00 – 17:00 Hrs.

Max. Marks: 100

✍ Long Essay:

1. Discuss the diagnostic modalities in acute pulmonary embolism.
(20 marks)

2. Discuss the pathophysiology and hemodynamics of cardiac tamponade and constrictive pericarditis with special reference to echo and catheterisation findings.
(20 marks)

3. **Write short notes on:**
 - 3A. Ablation of atrial fibrillation
 - 3B. Brugada syndrome
 - 3C. Surgical options in heart failure
 - 3D. Diagnosis of wide QRS tachycardia
 - 3E. Resistant hypertension
 - 3F. Septal ablation

(10 marks × 6 = 60 marks)

