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MANIPAL UNIVERSITY

SECOND/THIRD YEAR M.Sc. ECHOCARDIOGRAPHY DEGREE EXAMINATION – JUNE 2015

SUBJECT: PAPER V: CONGENITAL HEART DISEASE

(2012 SCHEME/2012 PT)

Monday, June 01, 2015

Time: 10:00 – 13:00 Hrs.

Max. Marks: 80

- ✍ Answer ALL the questions.
- ✍ Draw the diagram wherever necessary.

1. Explain presentation, diagnosis and Echocardiography in HLHS. (20 marks)
2. Explain pathophysiology, presentation and diagnostics in TOF. (20 marks)

3. Write short note on:

- 3A. Pulmonary AV malformation
- 3B. Uhl anomaly
- 3C. Phlebotomy
- 3D. AP window
- 3E. ALCAPA

(8 marks × 5 = 40 marks)



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MANIPAL UNIVERSITY

SECOND YEAR M.Sc. CARDIAC CATHETERIZATION AND
INTERVENTIONAL TECHNOLOGY DEGREE EXAMINATION – JUNE 2015

SUBJECT: PAPER V: CONGENITAL HEART DISEASE

Monday, June 01, 2015

Time: 10:00 – 13:00 Hrs.

Max. Marks: 80

- ✍ Answer ALL the questions.
✍ Draw the diagram wherever necessary.

1. Explain baseline hemodynamics, procedure, technique and stenting of co-arcuation of aorta. (20 marks)
2. Explain various methods of cardiac output measurements. (20 marks)
3. Write short note on:
 - 3A. Pre-Glenn and pre-Fontan catheterization
 - 3B. Balloon atrial septostomy
 - 3C. Cath and Angiography in TOF
 - 3D. Cardiac catheterization and angiography in anomalous pulmonary venous connection
 - 3E. Assessment of reactivity PV bed in Eisenmenger syndrome

(8 marks × 5 = 40 marks)



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MANIPAL UNIVERSITY

SECOND YEAR M.Sc. CARDIAC CATHETERIZATION AND INTERVENTIONAL TECHNOLOGY DEGREE EXAMINATION – JUNE 2015

SUBJECT: PAPER VI: MISCELLANEOUS DISEASES

Wednesday, June 03, 2015

Time: 10:00 – 13:00 Hrs.

Max. Marks: 80

- ✍ Answer ALL the questions.
- ✍ Draw the diagram wherever necessary.

1. Explain the types of aortic arch. Explain carotid stenting in detail.
(20 marks)
2. Explain the treatment of abdominal aortic aneurysm in detail with expecting complications.
(20 marks)
3. Write short note on:
 - 3A. Coronary artery perforation
 - 3B. Contrast nephropathy
 - 3C. Coronary graft angiogram
 - 3D. Arterio-venous fistula obstruction-intervention in dialysis patients
 - 3E. Front runner catheter

(8 marks × 5 = 40 marks)



MANIPAL UNIVERSITY**SECOND YEAR M.Sc. ECHOCARDIOGRAPHY DEGREE EXAMINATION – JUNE 2015****SUBJECT: PAPER VI: MISCELLANEOUS DISEASES
(2012 SCHEME/2012 PT)**

Wednesday, June 03, 2015

Time: 10:00 – 13:00 Hrs.

Max. Marks: 80

- ✍ **Answer ALL the questions.**
✍ **Draw the diagram wherever necessary.**

1. Explain definition, nomenclature, pathophysiology and diagnosis of HOCM. (20 marks)
2. Define differentiation of ischemic and non ischemic cardiomyopathy in detail. (20 marks)

3. **Write short note on:**

- 3A. Aortic atheroma
3B. Marfan syndrome
3C. Squatting stress echocardiography
3D. Arrhythmogenic RV cardiomyopathy
3E. Hepatic vein Doppler

(8 marks × 5 = 40 marks)



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MANIPAL UNIVERSITY

SECOND/THIRD YEAR M.Sc. ECHOCARDIOGRAPHY DEGREE EXAMINATION – JUNE 2015

SUBJECT: PAPER VII: RECENT ADVANCES
(2012 SCHEME/2012 PT)

Friday, June 05, 2015

Time: 10:00 – 13:00 Hrs.

Max. Marks: 80

- ✍ **Answer ALL the questions.**
- ✍ **Draw the diagram wherever necessary.**

1. Explain hepatic venous flow in rhythm and conduction disorders. (20 marks)

 2. Define CHA2DS2-VASc Score for Atrial Fibrillation Stroke Risk, pre analysis of LA appendage closure, procedural and post LAA closure assessment in detail. (20 marks)

 3. **Write short note on:**
 - 3A. TD imaging for LV Dyssnchrony
 - 3B. 3D speckle tracking echocardiography
 - 3C. Myocardial contrast Echo
 - 3D. PFO assessment in stroke patient
 - 3E. PISA method
- (8 marks × 5 = 40 marks)



MANIPAL UNIVERSITY

SECOND YEAR M.Sc. CARDIAC CATHETERIZATION AND INTERVENTIONAL TECHNOLOGY DEGREE EXAMINATION – JUNE 2015

SUBJECT: PAPER VII: RECENT ADVANCES IN INTERVENTION

Friday, June 05, 2015

Time: 10:00 – 13:00 Hrs.

Max. Marks: 80

✍ **Answer ALL the questions.**

✍ **Draw the diagram wherever necessary.**

1. Explain procedural consideration and technique of optical coherence tomography (OCT) in detail.

(20 marks)

2. Explain technique and role of FFR in coronary intervention in detail.

(20 marks)

3. **Write short note on:**

3A. Pulmonary valve implantation

3B. Percutaneous balloon pericardiotomy

3C. RSOV devise closure

3D. Radiation hazards

3E. Coronary artery brachytherapy

(8 marks × 5 = 40 marks)

