

# Question Paper

Exam Date & Time: 11-Jan-2023 (10:00 AM - 12:00 PM)



## MANIPAL ACADEMY OF HIGHER EDUCATION

THIRD SEMESTER M.Sc. (ECHOCARDIOGRAPHY) DEGREE EXAMINATION - JANUARY 2023  
SUBJECT: CVS6011 - ADVANCE ECHOCARDIOGRAPHY  
(2021 SCHEME)

Marks: 50

Duration: 120 mins.

Answer all the questions.

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|-----|---|------|
| 1)  | Explain the different views and clinical applications of transesophageal Echo | (20) |
| 2)  | Explain the pre-requisites and brief method of assessing LV torsion           | (10) |
| 3)  | Write a note on dyssynchrony assessment by Echocardiography                   | (10) |
| 4A) | Enumerate the advantage and disadvantages of Tissue Doppler imaging           | (5)  |
| 4B) | Write a note on intravascular ultrasound                                      | (5)  |

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# Question Paper

Exam Date & Time: 07-Jan-2023 (10:00 AM - 01:00 PM)



## MANIPAL ACADEMY OF HIGHER EDUCATION

THIRD SEMESTER M.Sc. (ECHOCARDIOGRAPHY) DEGREE EXAMINATION - JANUARY 2023  
SUBJECT: CVS6101- CONGENITAL HEART DISEASES  
(2021 SCHEME)

Marks: 100

Duration: 180 mins.

Answer all the questions.

- 1) Explain in detail pathophysiology, clinical features, diagnosis and management in HLHS. (20)
- 2) Elaborate the pathogenesis, clinical features, echocardiographic diagnosis and management of complete AVSD in detail. (20)
- 3) Explain the pathophysiology, diagnosis and management in hemitruncus. (10)
- 4) Illustrate the embryology and diagnostic features in common atrium. (10)
- 5) Explain the pathophysiology and diagnosis in TOF with absent pulmonary valve. (10)
- 6) Explain the etiopathogenesis, clinical features and diagnostic criteria of Kawasaki disease. (10)
- 7A) Briefly write a summary on Shone's complex. (5)
- 7B) Define Double aortic arch. (5)
- 7C) List the syndromic associations in conotruncal anomalies. (5)
- 7D) Define Double orifice mitral valve. (5)

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# Question Paper

Exam Date & Time: 09-Jan-2023 (10:00 AM - 01:00 PM)



## MANIPAL ACADEMY OF HIGHER EDUCATION

THIRD SEMESTER M.Sc. ECHOCARDIOGRAPHY DEGREE EXAMINATION - JANUARY 2023  
SUBJECT: CVS6102 - CARDIAC PACEMAKERS AND DEFIBRILLATORS  
(2021 SCHEME)

Marks: 100

Duration: 180 mins.

Answer all the questions.

- 1) Explain the preprocedural and post-procedural evaluation of patients undergoing CRT implantation. (20)
- 2) Explain the mechanism of Bradycardia detection and therapy in ICD. (20)
- 3A) Explain the indication and brief procedure of the head-up tilt table test. (10)
- 3B) Illustrate the mechanism of biventricular pacing. (10)
- 3C) Explain the components of cardiac pacemakers. (10)
- 3D) Describe the various pacemaker malfunction. (10)
- 4A) Explain the role of Holter monitoring in the decision-making for PPI. (5)
- 4B) Explain the waveforms seen in SAECG. (5)
- 4C) Outline the magnet function in ICD. (5)
- 4D) Explain the pacing physiology in VVI pacing. (5)

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