

# Question Paper

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



## MANIPAL ACADEMY OF HIGHER EDUCATION

THIRD SEMESTER M.Sc.(CARDIAC CATH & INTERVENTION TECHNOLOGY) DEGREE EXAMINATION - JANUARY 2023  
SUBJECT: CCI6011 - 3D MAPPING AND ABLATION  
(2021 SCHEME)

Marks: 50

Duration: 120 mins.

Answer all the questions.

- 1) Explain the techniques of AVNRT and AVRT catheter ablation during cardiac EP studies (20)
- 2) Discuss the various access site used and add a note on standard catheter positioning during EP studies (10)
- 3) Discuss the catheter ablation techniques of post MI ventricular tachycardia (10)
- 4A) Define and add a note on cryoablation (5)
- 4B) Add a note on construction of Mapping system (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. (CARDIAC CATH & INTERVENTION TECHNOLOGY) DEGREE EXAMINATION - JANUARY 2023  
SUBJECT: CCI6101- CARDIAC CATH AND INTERVENTION IN CHD  
(2021 SCHEME)

Marks: 100

Duration: 180 mins.

Answer all the questions.

- 1) Write the indications, contraindications, procedure and hardware's of patent ductal arteriosus device closure by cardiac catheterization (20)
- 2) Discuss the importance of balloon atrial septostomy in various cyanotic congenital defects, and explain the procedure of the same in detail (20)
- 3A) Write a note on coronary and pulmonary arteriovenous fistula (10)
- 3B) Write the anatomical description, pathophysiology and role of cardiac catheterization in CCTGA (10)
- 3C) Explain the procedure of oximetry run and its limitations (10)
- 3D) Write a note on cardiac ventriculography . (10)
- 4A) Write a note on hypoplastic left heart syndrome (5)
- 4B) Write a note on thermodilution method of cardiac output measurements (5)
- 4C) Explain the classification and pathophysiology of Truncus arteriosus (5)
- 4D) Write a note on pulmonary blood flow and resistance (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. CCIT DEGREE EXAMINATION - JANUARY 2023  
SUBJECT: CCI6102 - ELECTROPHYSIOLOGY AND CARDIAC PACEMAKERS  
(2021 SCHEME)

Answer ALL questions.

Marks: 100

Duration: 180 mins.

- 1) Explain the importance of pacemaker timing cycles and intervals for both single and dual chamber cardiac pacing. (20)
- 2) Explain the standard catheter positioning in electrophysiological studies and add a note on various intervals measured. (20)
- 3A) Discuss the common pacemaker problems and malfunctions. (10)
- 3B) Explain the SVT evaluation and interpretation of EP study findings. (10)
- 3C) Discuss the components of implantable cardioverter defibrillator. (10)
- 3D) Explain the post procedural program settings in CRT devices. (10)
- 4A) Write a note on active and passive lead fixation mechanism. (5)
- 4B) Write a note on heart rate variability test in the evaluation of cardiac arrhythmias. (5)
- 4C) Explain the uses of cardioactive drugs during electrophysiological studies. (5)
- 4D) Define ablation therapy in electrophysiological studies. (5)

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