

Question Paper

Exam Date & Time: 18-Apr-2022 (10:00 AM - 01:00 PM)



MANIPAL ACADEMY OF HIGHER EDUCATION

THIRD SEMESTER M.Sc. CARDIAC CATHETERIZATION AND INTERVENTIONAL TECHNOLOGY DEGREE
EXAMINATION - APRIL 2022

SUBJECT: MCAT 701 - CARDIAC CATH AND INTERVENTION IN CHD
(2018 SCHEME)

Marks: 100

Duration: 180 mins.

Answer all the questions.

- 1) Write the diagnostic cardiac catheterization guidelines in the assessment of cyanotic congenital heart diseases. (20)
- 2) Discuss the indication, contraindication, hardwares and procedure in the intervention of Coarctation of aorta. (20)
- 3A) Explain the calculation of systemic and pulmonary blood flow resistance. (10)
- 3B) Discuss the role of safety measures while handling cases under special circumstances. (10)
- 3C) Explain the interventional procedure and techniques of RVOT stenting. (10)
- 3D) Discuss the abnormal systemic venous connections. (10)
- 4A) Mention the limitations of oximetry run. (5)
- 4B) Write a note on electrical strain gauge. (5)
- 4C) Write a note on downs syndrome. (5)
- 4D) Write the Cath study findings in the evaluation of tetralogy of fallot. (5)

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Question Paper

Exam Date & Time: 23-Apr-2022 (10:00 AM - 01:00 PM)



MANIPAL ACADEMY OF HIGHER EDUCATION

THIRD SEMESTER M.Sc. CARDIAC CATHETERIZATION AND INTERVENTIONAL TECHNOLOGY DEGREE
EXAMINATION - APRIL 2022

SUBJECT: MCAT 705 - ELECTROPHYSIOLOGY AND CARDIAC PACEMAKERS
(2018 SCHEME)

Marks: 100

Duration: 180 mins.

Answer all the questions.

- 1) Explain the physiology of cardiac pacing and discuss the pacemaker timing cycles and intervals in detail. (20)
- 2) Write the indications, contraindications, procedure, lead positioning and complications during implantation of Cardiac resynchronization devices, also briefly explain about CS lead. (20)
- 3A) Write the indications of cardiac electrophysiological studies for tachy and brady arrhythmias. (10)
- 3B) Write a note on Interpretations of finding in brady arrhythmias evaluation during electrophysiological studies. (10)
- 3C) Explain the re-implantation procedure of cardiac pacemakers after a pocket site infection. (10)
- 3D) Write a note on bradycardia detection and therapy in implanted cardiac defibrillators. (10)
- 4A) Write a note on automatic mode switching in pacemakers. (5)
- 4B) Write a note on incremental and decremental cardiac pacing during electro-physiological studies. (5)
- 4C) Mention the complications of cardiac electro-physiological studies. (5)
- 4D) Write a note on coronary sinus venogram. (5)

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