

# Question Paper

Exam Date & Time: 27-Jan-2023 (10:00 AM - 01:00 PM)



## MANIPAL ACADEMY OF HIGHER EDUCATION

FIRST SEMESTER M.Sc.(CARDIAC CATH & INTERVENTION TECHNOLOGY) DEGREE EXAMINATION - JANUARY 2023  
SUBJECT: CCI5101- BASICS IN CARDIAC CATHETERIZATION AND INTERVENTION  
(2021 SCHEME)

Marks: 100

Duration: 180 mins.

Answer all the questions.

- 1) Discuss the indications, contraindications, hardware's and procedural steps in percutaneous coronary intervention (20)
- 2) Explain the principle of intravascular ultrasound and discuss the interpretation of IVUS images (20)
- 3A) Discuss the role of left ventricular angiography in diagnostic catheterization (10)
- 3B) Explain the strategies in the left main coronary intervention (10)
- 3C) Discuss the benign and malignant coronary anomalies (10)
- 3D) Write the TIDS rule for radiation protection and management in cathlab (10)
- 4A) Mention the uses of radiographic contrast media (5)
- 4B) Write a note of fractional flow reserve (5)
- 4C) Write a note on Brachial artery approach of access (5)
- 4D) Give the classification of coronary wires (5)

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# Question Paper

Exam Date & Time: 30-Jan-2023 (10:00 AM - 01:00 PM)



## MANIPAL ACADEMY OF HIGHER EDUCATION

FIRST SEMESTER M.Sc.(CARDIAC CATH & INTERVENTION TECHNOLOGY) DEGREE EXAMINATION - JANUARY 2023  
SUBJECT: CCI5102- RADIATION EVALUATION AND PROTECTION  
(2021 SCHEME)

Marks: 100

Duration: 180 mins.

Answer all the questions.

- 1) Explain personal monitoring devices (20)
- 2) Explain factors for calculating primary radiation (20)

Explain the following:

- 3) Explain effects of beam limiting devices (10)
- 4) Explain significance of effective communication on reducing radiation dose (10)
- 5) Discuss the guidelines for installation of diagnostic X-ray equipment (10)
- 6) Explain aim and objectives of radiation protection (10)

7) Short notes:

- 7A) Explain ALARA and ALARP (5)
- 7B) Explain somatic and genetic effect of radiation (5)
- 7C) Explain direct and indirect effects of radiation (5)
- 7D) Explain radiation protection in pregnancy (5)

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