

# Question Paper

Exam Date & Time: 30-May-2022 (10:00 AM - 12:00 PM)



## MANIPAL ACADEMY OF HIGHER EDUCATION

FOURTH SEMESTER B.Sc. CARDIOVASCULAR TECHNOLOGY DEGREE EXAMINATION - MAY 2022  
SUBJECT: CVT 2241 - PROGRAM ELECTIVE-1 - CARDIAC INTERVENTIONAL HARDWARES  
(2020 SCHEME)

Marks: 50

Duration: 120 mins.

Answer all the questions.

- |     |  |      |
|-----|--|------|
| 1)  | Explain the uses of left heart catheters in detail.                    | (10) |
| 2)  | Discuss the various types of stents used in interventional cardiology. | (10) |
| 3A) | Discuss the advantages of radial approach over femoral approach.       | (5)  |
| 3B) | Mention the uses of pacing catheters.                                  | (5)  |
| 3C) | Discuss the various types of guide wires used in cathlab.              | (5)  |
| 3D) | Write a note on IVC filter.  | (5)  |
| 4A) | Name few drug eluting stents.  | (2)  |
| 4B) | Define compliant balloons.   | (2)  |
| 4C) | Give two uses of Pig tail catheter.                                    | (2)  |
| 4D) | Draw a labelled diagram of X ray tube.                                 | (2)  |
| 4E) | Define absorbed dose.  | (2)  |

-----End-----

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FOURTH SEMESTER B.Sc. CARDIOVASCULAR TECHNOLOGY DEGREE EXAMINATION - MAY/JUNE 2022  
SUBJECT: CVT2242 - PROGRAM ELECTIVE-I - PACEMAKER PROGRAMMING AND ANALYSIS  
(2020 SCHEME)

Marks: 50

Duration: 120 mins.

Answer all the questions.

- 1) Discuss the preliminary settings required in Cath lab for device insertion. (10)
- 2) How do the pacemaker malfunctions are identified and rectified? (10)
- 3A) Discuss Single chamber timing intervals. (5)
- 3B) What are the acute complications of pacing device insertion? (5)
- 3C) What is the sequential approach for pacemaker analysis? (5)
- 3D) How a pacing threshold test is performed? (5)
- 4A) Mention the various pacing device companies. (2)
- 4B) Define sensitivity. (2)
- 4C) Define end of life. (2)
- 4D) Name the tools used in extraction. (2)
- 4E) Define cross talk. (2)

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