# **Question Paper**

Exam Date & Time: 22-Nov-2021 (10:00 AM - 12:00 PM)



## MANIPAL ACADEMY OF HIGHER EDUCATION

### FOURTH SEMESTER B.Sc. CARDIOVASCULAR TECHNOLOGY DEGREE EXAMINATION - NOVEMBER 2021 SUBJECT: BCVT 202 - CARDIAC PACEMAKER AND DEFIBRILLATORS (2016 RV SCHEME)

Marks: 50

Duration: 120 mins.

#### Answer all the questions.

1)	Explain NBG code system for permanent pacemaker implantation.	(10)
2)	Discuss in detail the acute and chronic complications of permanent pacemaker implantation.	(10)
3A)	Explain Strength - Duration Curve and mention the importance of Impedance in the system.	(5)
3B)	Write a note on rate adaptive pacemakers.	(5)
3C)	What are the advantages and disadvantages of DDDR mode?	(5)
3D)	Write the Indications for biventricular pacing.	(5)
4A)	Uses of Magnet in ICD.	(2)
4B)	Write two difference between Unipolar & Bipolar pacing.	(2)
4C)	Define base rate and upper rate behaviour.	(2)
4D)	What is Refractory Period?	(2)
4E)	Define stimulation and threshold.	(2)

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# **Question Paper**

Exam Date & Time: 23-Nov-2021 (10:00 AM - 01:00 PM)



## MANIPAL ACADEMY OF HIGHER EDUCATION

### FOURTH SEMESTER B.Sc. CARDIOVASCULAR TECHNOLOGY DEGREE EXAMINATION - NOVEMBER 2021 SUBJECT: BCVT 204 - CONGENITAL HEART DISEASE - I (2016 RV SCHEME)

Marks: 100

Duration: 180 mins.

### Answer all the questions.

1A)	Explain embroyology, classification and pathophysiology of VSD in detail.	(20)
1B)	Describe classification, pathophysiology and role of echocardiography in TAPVC.	(20)
2A)	Describe segmental approach to congenital heart disease in detail.	(10)
2B)	Explain clinical presentation, natural history and echo findings in Ebstein's anomaly.	(10)
3A)	Briefly explain about the prevalence and pathophysiology of PAPVC.	(5)
3B)	Discuss the various types of mitral inflow obstruction in detail.	(5)
3C)	Describe the echocardiographic evaluation of AP window.	(5)
3D)	Explain the types of Cor-triatriatum with the neat labelled diagram in detail.	(5)
3E)	Explain the Classification and clinical findings of ASD.	(5)
3F)	Explain the echocardiographic evaluation of PDA.	(5)
4A)	Write the types of sinus venosus ASD.	(2)
4B)	Name the leaflets of complete AVCD with the diagram.	(2)
4C)	Write the components of right isomerism.	(2)
4D)	Define straddling.	(2)
4E)	List the X-ray findings of TAPVC.	(2)

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