

# Question Paper

Exam Date & Time: 05-Mar-2019 (02:00 PM - 04:00 PM)



## MANIPAL ACADEMY OF HIGHER EDUCATION

**FIRST SEMESTER B.Sc. CARDIOVASCULAR TECHNOLOGY DEGREE EXAMINATION - MARCH 2019**  
**SUBJECT: BCVT 101 - CARDIAC ANATOMY AND PHYSIOLOGY**  
**(2016 RV SCHEME)**

**Tuesday, March 05, 2019 (14.00 - 16.00)**

**Answer all the questions.**

**Draw the diagram wherever necessary.**

**Marks: 50**

**Duration: 120 mins.**

- |     |   |      |
|-----|---|------|
| 1)  | Explain an arterial pulse with diagram. Briefly describe the abnormal pulses. | (10) |
| 2)  | Describe coronary venous anatomy in detail.                                   | (10) |
| 3A) | Write a short note on SA node.  | (5)  |
| 3B) | Explain tributaries of arch of Aorta and upper limb.                          | (5)  |
| 3C) | Explain functional and anatomical difference of ventricle.                    | (5)  |
| 3D) | Explain phases of BP measurement.   | (5)  |
| 4A) | Define Stroke volume. Mention factors affecting Stroke volume.                | (2)  |
| 4B) | Explain the medical terms: Cardiomyopathy, dyspnoea.                          | (2)  |
| 4C) | What are continuous murmurs? Give two examples.                               | (2)  |
| 4D) | Write any two-clinical significance of pericardium.                           | (2)  |
| 4E) | Mention the components of Aortic valve.                                       | (2)  |

-----End-----

# Question Paper

Exam Date & Time: 06-Mar-2019 (02:00 PM - 04:00 PM)



## MANIPAL ACADEMY OF HIGHER EDUCATION

**FIRST SEMESTER B.Sc. CARDIOVASCULAR TECHNOLOGY DEGREE EXAMINATION - MARCH 2019**

**SUBJECT: BCVT 103 - BASIC ECG**

**(2016 RV SCHEME)**

**Wednesday, March 06, 2019 (14.00 - 16.00)**

**Answer all the questions.**

**Draw the diagram wherever necessary.**

**Marks: 50**

**Duration: 120 mins.**

- 1) What are unipolar leads? Define Wilson's central terminal. Describe the unipolar lead placements. (10)
- 2) What is pericarditis? Explain the ECG signs to differentiate pericarditis from MI? (10)
- 3A) Briefly explain phase 4 in cardiac action potential. (5)
- 3B) Describe ECG changes in RV MI. (5)
- 3C) What is biventricular hypertrophy? Mention the ECG criterias. (5)
- 3D) Explain AV blocks briefly. (5)
- 4A) What are the QRS signs of Right atrial enlargement? (2)
- 4B) What is absolute refractory period? What is the importance? (2)
- 4C) Explain the criteria for sinus rhythm. (2)
- 4D) Describe the genesis of P-QRS-T in ECG. (2)
- 4E) Draw the action potential of pacemaker cell. Mention the phases. (2)

-----End-----