

Question Paper

Exam Date & Time: 11-Jan-2023 (02:30 PM - 04:30 PM)



MANIPAL ACADEMY OF HIGHER EDUCATION

FIRST SEMESTER B.Sc. (CARDIO VASCULAR TECHNOLOGY) DEGREE EXAMINATION - JANUARY 2023
SUBJECT: CVT1101- CARDIAC ANATOMY AND PHYSIOLOGY
(2020 SCHEME)

Marks: 50

Duration: 120 mins.

Answer all the questions.

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| 1) | Explain anatomy of aorta and its branches with neat labelled diagram | (10) |
| 2) | Explain the anatomical variances of Mitral valve in detail | (10) |
| 3A) | Write the anatomical features of AV node | (5) |
| 3B) | Explain characteristics of First heart sound | (5) |
| 3C) | Describe continuous murmur | (5) |
| 3D) | Explain the clinical significance of pericardium | (5) |
| 4A) | Define pulsus bisferiens. Give one example | (2) |
| 4B) | Define third and fourth heart sound | (2) |
| 4C) | Give two examples for irregularly irregular pulse | (2) |
| 4D) | Define right dominance of coronary system | (2) |
| 4E) | Define word root in medical terminology | (2) |

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Question Paper

Exam Date & Time: 13-Jan-2023 (10:00 AM - 01:00 PM)



MANIPAL ACADEMY OF HIGHER EDUCATION

FIRST SEMESTER B.Sc. CARDIO VASCULAR TECHNOLOGY DEGREE EXAMINATION - JANUARY 2023
SUBJECT: CVT1102 - BASIC ECG
(2020 SCHEME)

Marks: 100

Duration: 180 mins.

Answer all the questions.

- 1) Explain the derivation of limb leads and precordial leads with the help of an Einthoven's triangle in detail. Discuss the placement of precordial leads. (20)
- 2) Explain the steps involved in identification of culprit vessel and localization of MI. Describe the phases in Myocardial Infarction with the help of a diagram. (20)
- 3) Explain Atrio ventricular block in detail. (10)
- 4) Illustrate hexaxial cardiac reference system. Enumerate the steps in determining cardiac electrical axis. (10)
- 5A) Distinguish between cardiac cell and pacemaker cell action potential with a labelled diagram. (5)
- 5B) Define the ECG diagnostic findings of right and left atrial enlargement. (5)
- 5C) Explain the ECG findings in right ventricular hypertrophy. List 4 causes. (5)
- 5D) How to detect myocardial infarction in the presence of LBBB? Explain. (5)
- 5E) Explain the electrical properties of AV node with a diagram. Discuss the physiological importance. (5)
- 5F) Define fascicular block. Mention the diagnostic ECG criteria of LAFB. (5)
- 6A) List the ECG findings in RBBB. List 4 causes of RBBB. (2)
- 6B) Who is the father of ECG? What is standardization in an ECG? (2)
- 6C) List ECG findings in biventricular hypertrophy. Mention 2 causes. (2)
- 6D) Define action potential. What is resting membrane potential of ventricular cell? (2)
- 6E) Define the following terms: (a) Myocardial ischemia (b) Myocardial infarction. (2)

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