

B.Sc. CARDIAC TECHNOLOGY
FIRST YEAR
PAPER V – BASIC ELECTROCARDIOGRAPHY (ECG)
Q.P. Code : 801505

Time: Three hours

Maximum: 100 Marks

Answer all questions

I. Elaborate on:

(3 x 10 = 30)

1. Describe normal conduction system of heart.
2. Describe the concept of Einthovens triangle.
3. Draw a normal ECG pattern in LI, aVL, V1, V5, C6 and Explain why the pattern is like this base on electrical activation.

II. Write Notes on:

(8 x 5 = 40)

1. Triaxial and Hexaxial reference system.
2. Left axis deviation – Draw the complex in I,aVL, liii, AVF.
3. Non cardiac factors that can alter the appearance of ECG.
4. What is an U wave? Which leads have prominent U wave?
5. What does the PR interval indicate and what is it's relation with heart rate?
6. Rate calculation in atrial fibrillation.
7. What is meant by clockwise and counterclockwise rotation of heart?
8. What is the normal R wave progression in chest leads and why?

III. Write Notes on:

(10 x 3 = 30)

1. Draw a QRS and T in V1 and V5, V6 in left bundle branch block.
2. Right axis deviation – the ECG pattern in L II, LIII and Avf.
3. How to determine whether QRS voltage is normal or low?
4. Normal P wave axis.
5. When do you say ECG shows left axis deviation? Draw a QRS complex in LI, aVL, LIII and aVF in left axis.
6. Differentiation from normal and pathological Q wave.
7. What do you mean by vertical heart?
8. Mark the position of V7, V8 and V4R. Which are the situations where these leads are taken.
9. When do you say PR interval is prolonged and conditions where PR is Prolonged?
10. What is normal QRS pattern in AVR?
