

BABA FARID UNIVERSITY OF HEALTH SCIENCES, FARIDKOT

ECG TECH
(Under DRME, Govt. of Punjab)

QUESTION BOOKLET NO.

SESSION OF THE CANDIDATE

OMR ANSWER SHEET NO.

ROLL NO:

FULL SIGNATURE OF THE CANDIDATE

FULL SIGNATURE OF THE INVIGILATOR

FULL SIGNATURE OF THE OBSERVER

Time Allowed: 1.00 Hours (11.00 AM to 12.00 noon)

Maximum Marks: 50

1. Use BLACK FINE TIP BALL PEN only. Use of pencil is not allowed.
2. Write your Roll number on the OMR answer-sheet and also on the question-booklet only in the space provided for the purpose and at no other place in the question booklets and Answer-sheet
3. Enter the Question Booklet Set and Number on the OMR Answer-sheet and also darken the corresponding bubbles with BLACK FINE TIP BALL PEN.
4. Do not put any marks anywhere in the Question booklet /on the OMR Answer-sheet.
5. **There are 50 objective type questions in all of 1 Mark each.** Before attempting the questions, check that the Question-booklet is complete. In case any question/part of question or page is missing, inform the Centre Superintendent within 5 minutes of the start of the examination. After that no claim will be entertained.
6. **Each question is followed by four alternative responses listed as A), B), C) and D) out of which only one is correct / most correct. In case, all the ovals are left blank, there will be deduction of marks @ 0.25 mark for each such unattempted question. Fifth oval 'E' (introduced for security purpose) is to be darkened in case you do not want to attempt the question to avoid negative marking.**
7. To open the question booklet, remove the seal gently when asked to do so. Handover the OMR Answer-sheet to the officer on duty on the completion of the time before you leave the examination hall.
8. **The candidates are permitted to carry his/her question booklet after completion of the examination but OMR Sheets are compulsory required to be deposited with the invigilator.**
9. A candidate who create disturbance of any kind or changes his/her seat or is found in possession of any paper possibility of any assistance to him/her or unfair means will be expelled from the examination by the Centre superintendent/Observer, whose decision shall be final. ("Expulsion" for this purpose would mean cancellation of the entire examination of the candidate).
10. **THE CANDIDATES ARE NOT PERMITTED TO CARRY ANY TELECOMMUNICATION EQUIPMENT SUCH AS WATCH, CELLULAR PHONE, WIRELESS SET, SCANNER ETC. INSIDE THE EXAMINATION HALL.**
11. For rough work, use only the blank space of the Question booklet.
12. The candidates will not be allowed to leave the examination hall during the examination.
13. Borrowing any material is not allowed.
14. The answer-sheet is designed for Computer evaluation. If the instructions are not followed properly, the candidate alone shall be responsible for the resultant loss.
15. Smoking/Refreshment shall not be allowed in the Entrance Test Centre/Hall.
16. Male candidates shall affix their Left Thumb Impression (LTI) while Female candidates shall affix Right Thumb Impression (RTI) at the prescribed place on the OMR answer sheet, Question Booklet and attendance sheet. The Centre superintendent shall also obtain and retain it for record.
17. The candidate must fill both the question booklet number and OMR answer sheet number on the attendance sheet.
18. No candidate shall be allowed to leave the centre before **12.00 noon**.

1. An electrocardiogram is a graphic illustration of :

- a. Cardiac conduction system
- b. Cardiac cycle
- c. Cardiac output
- d. Systemic and pulmonary circuits

2. The correct route through which pulse-making impulse travels in the heart is:

- a. AV-node —» bundle of His —» SA node —» Purkinje fibers —» heart muscles
- b. AV-node —» SA node —» Purkinje fibers —» bundle of His —» heart muscles
- c. SA node —» Purkinje fibers —» bundle of His —» AV-node —» heart muscles
- d. SA node —» AV-node —» bundle of His —» Purkinje fibers —» heart muscles

3. What view of the heart do leads I, aVL, V5 and V6 represent?

- a. Inferior
- b. Lateral
- c. Anterior
- d. Septal

4. What is the size of one small box?

- a. 2 mm²
- b. 1.5 mm²
- c. 1 mm²
- d. 2 mm²

5. Horizontally, each unit represents how many seconds:

- a. 0.04 sec
- b. 0.05 sec
- c. 0.06 sec
- d. 0.03 sec

6. Leads I, II and III can be represented schematically in terms of a triangle called as:

- a. Wintrove's triangle
- b. Heathrow's triangle
- c. Virchow's triangle
- d. Einthoven's triangle

7. What is the standard calibration in an ECG:

- a. 1 m V = 8 mm
- b. 1 m V = 6 mm
- c. 1 m V = 10 mm
- d. 1 m V = 12 mm

8. Which of the following are Bipolar leads:

- a. aVR, aVL and aVF
- b. V1, V2 and V3
- c. I, II and III
- d. V4, V5 and V6

9. In normal ECG the paper speed is:

- a. 50 mm/sec
- b. 25 mm/sec
- c. 50 mm/ min
- d. 25 mm/min

10. Lead V2 is placed over _____
intercostal space in left sternal margin:

- a. 5th
- b. 4th
- c. 2nd
- d. 3rd

11. What is the name of machine used for recording continuous ECG in an ambulatory patient:

- a. Defibrillator
- b. Holter
- c. Ambulatory BP monitor
- d. None of the above.

12. Counting the number of QRS Complexes, which of the following can be interpreted?

- a. Heart rate
- b. Cardiac output
- c. Stroke volume
- d. Breathing rate

13. Which of the following is the Pacemaker of the heart:

- a. AV node
- b. Right atrium
- c. SA node
- d. Purkinje fibers

14. P wave represents which of the following:

- a. Atrial contraction
- b. Atrial relaxation
- c. Ventricular contraction
- d. Ventricular Relaxation

15. QRS complex indicates:

- a. Atrial contraction
- b. Atrial relaxation
- c. Ventricular relaxation
- d. Ventricular Contraction

16. Normal heart rate of an adult is:

- a. 50-100 bpm
- b. 40-80 bpm
- c. 60-100 bpm
- d. 70-100 bpm

17. How many small squares are present between two heavy lines on ECG paper:

- a. 5
- b. 4
- c. 3
- d. 6

18. T Wave in an ECG represents:

- a. Atrial diastole
- b. Atrial systole
- c. Ventricular diastole
- d. Joint diastole

19. Disturbance in cardiac rhythm is called as:

- a. Arrhythmia
- b. Seizure
- c. Syncope
- d. Tachycardia

20. Which of the following represent Inferior leads:

- a. V1, V2 and V3
- b. V4, V5 and V6
- c. II, III, and aVF
- d. I, aVL and V6

21. Name the correct placement of V5:

- A. 4th left intercostal space
- B. 4th right intercostal space
- C. 5th left intercostal space anterior axillary line
- D. 5th left intercostal space mid axillary line

22. Defibrillator is used for all of the following except:

- a. Delivering shock
- b. Rhythm monitoring
- c. Pacing
- d. Respiration

23. Which of the following are augmented leads:

- a. I, II, III
- b. V2, V3, V4
- c. AVR, AVL, AVF
- d. V4, V5, V6

24. What is the site for placement of 2 pads in Automated external defibrillator :

- a. Directly below right and left collar bone
- b. Directly below right collar bone and below right nipple
- c. Below right and left nipple
- d. Directly below right collar bone and to the side of left nipple

25. Disinfection of ECG machines is done with which of the following:

- a. Soap Water
- b. Dry cloth
- c. 70 % Alcohol wipes
- d. None of the above

26. How many leads are present in standard ECG:

- a. 12 leads
- b. 7 leads
- c. 8 leads
- d. 6 leads

27. How will you identify limb lead reversal right and left arm on ECG:

- a. Negative P wave with negative QRS complex in lead 1
- b. Negative P wave with normal QRS complex in lead 1
- c. Positive P wave with negative QRS complex in lead 1
- d. None of the above

28. Where should you place AED pads on an infant victim?

- a. One under left arm pit and one high on the right side of the chest
- b. One under the right arm and one high on left side of chest
- c. One under each arm pit
- d. One in the center of the back and one over the center of chest

29. Lead I records difference in voltage between ____ and ____:

- a. Right arm and left leg
- b. Left arm and right arm
- c. Right arm and Left arm
- d. Left leg and left arm

30. If AED is to be used and victim is in water, what steps are to be done before giving shock:

- a. Pull the victim out of water
- b. Wipe the water off the chest
- c. Don't use AED in water
- d. All of the above

31. If there were 3 large squares in an R-R interval what would the heart rate be ?

- a. 100 bpm
- b. 70 bpm
- c. 90 bpm
- d. 80 bpm

32. ECG report must consist of following information:

- a. Rhythm, cardiac axis
- b. Conduction interval
- c. Description of the ST segments, QRS complexes and T waves
- d. All of the above

33. The characteristic of normal sinus rhythm include all of the following except:

- a. Rate 60-100 bpm
- b. Regular Rhythm
- c. Consistent P wave before every QRS complex
- d. QRS complex 0.4 - 0.8 sec

34. What segment, if elevated or depressed, reveals a sign of serious pathology?

- a. ST
- b. PR
- c. R-R
- d. QT

35. Full form of CAD is?

- a. Carotid artery disease
- b. Coronary angina disease
- c. Coronary artery disease
- d. Coronary artery disorder

36. A cardiac Rhythm that originates from SA node is called as:

- a. Atrial rhythm
- b. Sinus Rhythm
- c. Supraventricular rhythm
- d. Ventricular Rhythm

37. In a normal person, from V1 to V6 which wave shows gradual increase in amplitude:

- a. q Wave
- b. P wave
- c. S wave
- d. R wave

38. The 6 limb leads lie in which plane:

- a. Transverse plane
- b. Frontal plane
- c. Both of these
- d. None of these

39. If leads V1 to V6 are imagined to be the spokes of a wheel, then the centre of the wheel is:

- a. AV node
- b. SA node
- c. Left Ventricle
- d. His bundle

40. Who invented ECG:

- a. William Einthoven
- b. Ampere
- c. Darwin
- d. Newton

41. Lead III obtained by connecting _____ and _____:

- a. Right arm and left arm
- b. Right leg and left leg
- c. Right arm and left leg
- d. Left arm and left leg

42. The device used to obtain and display the conventional ECG is called as:

- a. Electrocardiogram
- b. Electrocardiograph
- c. Electrodes
- d. Leads

43. The positive electrode when recording lead avl on an EKG is: :

- a. Left arm
- b. Left leg
- c. Right leg
- d. Left arm + Left leg

44. Which amongst the following are right sided leads:

- a. aVR –V1
- b. II – avF
- c. V5-V6
- d. V2 – V3

45. The classic ECG changes in myocardial infarction are:

- a. ST segment elevation
- b. T wave inversion
- c. Development of abnormal Q wave
- d. All of the above

46. Name the placement for V4

- a. 5th intercostal space, anterior axillary line
- b. 5th intercostal space, midclavicular line
- c. 5th intercostal space, midaxillary line
- d. None of the above

47. Lead RV4 is obtained by?

- a. Placing V4 electrode in right 5th ICS in mid clavicular line
- b. Placing V4 electrode in left 5th ICS in mid clavicular line
- c. Placing V4 electrode in right 5th ICS in mid axillary line line
- d. Placing V4 electrode in right 5th ICS in anterior axillary line

48. What view of the heart does VI-V4 give?

- a. Anterior
- b. Posterior
- c. Lateral
- d. Exterior

49. Leads V1 and V2 represent which of the following views of the heart:

- a. Septal
- b. Inferior
- c. Anterior
- d. Lateral

50. Right Ventricular infarction is diagnosed in which leads:

- a. rV3 – rV4
- b. II, III aVF
- c. V3 –V4
- d. V5 –V6
