

# **BABA FARID UNIVERSITY OF HEALTH SCIENCES, FARIDKOT**

**ECG Technician**

**(under Baba Farid University of Health Sciences, Faridkot)**

QUESTION BOOKLET NO

IMPRESSION OF THE CANDIDATE

OMR ANSWER SHEET NO

ROLL NO:

FULL SIGNATURE OF THE CANDIDATE

Co-ordinator stamp

FULL SIGNATURE OF INVIGILATOR

Time Allowed: 1:00 Hour (12:00 Noon to 01:00 PM)

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 **01:00 PM**.

1. Right Ventricular infarction is represented by which leads:
  - a. rV3 – rV4
  - b. II, III, aVF
  - c. V3 –V4
  - d. V5 –V6
  
2. Which of the following are ECG changes in myocardial infarction:
  - a. ST segment elevation
  - b. T wave inversion
  - c. Development of abnormal Q wave
  - d. All of the above
  
3. Atrial fibrillation on ECG is:
  - a. Absence of P-waves and an irregular rhythm
  - b. Absence of P-waves and regular rhythm
  - c. Presence of P wave and regular rhythm
  - d. Presence of P wave and irregular rhythm
  
4. P wave is best seen in?
  - a. II
  - b. III
  - c. avF
  - d. V1
  
5. 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
  
6. The device used to obtain and display ECG is called as:
  - a. Electrocardiogram
  - b. Electrocardiograph
  - c. Electrodes
  - d. Leads
  
7. What view of the heart does VI-V4 give?
  - a. Anterior
  - b. Posterior
  - c. Lateral
  - d. Exterior

8. Lead III obtained by connecting \_\_\_\_\_ and \_\_\_\_\_:
- Right arm and left arm
  - Right leg and left leg
  - Right arm and left leg
  - Left arm and left leg
9. The 6 limb leads lie in which plane:
- Transverse plane
  - Frontal plane
  - Both of these
  - None of these
10. Normal P wave is:
- Less than 0.25 mV
  - Less than 0.12 secs
  - Precedes QRS complex
  - All of the above
11. In which of these conditions can widen QRS and Tall-tented T waves be observed?
- Hyponatremia
  - Hyperkalemia
  - Hyperglycemia
  - Hyperphosphatemia
12. If leads V1 to V6 are imagined to be the spokes of a wheel, then the centre of the wheel is:
- AV node
  - SA node
  - Left Ventricle
  - His bundle
13. Which amongst the following are right sided leads:
- aVR – V1
  - II – avF
  - V5-V6
  - V2 – V3

14. What is the site for placement of 2 pads in Automated external defibrillator :
- Directly below right and left collar bone
  - Directly below right collar bone and below right nipple
  - Below right and left nipple
  - Directly below right collar bone and to the side of left nipple
15. ECG report must consist of following information:
- Rhythm, cardiac axis
  - Conduction interval
  - Description of the ST segments , QRS complexes and T waves
  - All of the above
16. The characteristic of normal sinus rhythm include all of the following except:
- Rate 60-100 bpm
  - Regular Rhythm
  - Consistent P wave before every QRS complex
  - QRS complex 0.4 - 0.8 sec
17. If there were 3 large squares in an R-R interval what would the heart rate be ?
- 100 bpm
  - 70 bpm
  - 90 bpm
  - 80 bpm
18. What segment, if elevated or depressed, reveals a sign of serious pathology?
- ST
  - PR
  - R-R
  - QT
19. If AED is to be used and victim is in water, what steps are to be done before giving shock:
- Pull the victim out of water
  - Wipe the water off the chest
  - Don't use AED in water
  - All of the above
20. Depression of the ST segment depicts, which of the following?
- Ischemia
  - Hypokalemia
  - Myocardial infarction
  - Acute heart attack

21. How many leads are present in standard ECG:
- a. 12 leads
  - b. 7 leads
  - c. 8 leads
  - d. 6 leads
22. 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
23. Where should you place AED pads on a 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 centre of the back and one over the centre of chest
24. Which of the following correctly explains a phase/ event in cardiac cycle in a standard Electrocardiogram?
- a. QRS complex indicates atrial contraction.
  - b. QRS complex indicates ventricular contraction.
  - c. Time between S and T represents atrial systole.
  - d. P-wave indicates beginning of ventricular contraction.
25. What view of the heart do leads I, aVL, V5 and V6 represent?
- A. Inferior
  - B. Lateral
  - C. Anterior
  - D. Septal
26. An electrocardiogram is a graphic illustration of :
- A. Cardiac conduction system
  - B. Cardiac cycle
  - C. Cardiac output
  - D. Systemic and pulmonary circuits

27. 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

28. 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

29. . Lead V2 is placed over \_\_\_\_\_ intercostal space in left sternal margin:

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

30. Normal adult QRS axis lies between:

- a. -40 to +90
- b. -30 to + 120
- c. -30 to +90
- d. -60 to + 120

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

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

32. In which lead would you see a BIPHASIC P wave?

- a. V2-V3
- b. V5-V6
- c. V1
- d. V3

33. 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

34. An axis of -30 degree or more negative is described as:
- Normal axis
  - Right axis deviation
  - Left axis deviation
  - None of the above
35. Which of the following is the origin of normal heartbeat in a person:
- AV node
  - Right atrium
  - SA node
  - Purkinje fibers
36. Lead II records difference in voltage between \_\_\_\_ and \_\_\_\_:
- Right arm and left leg
  - Left arm and right arm
  - Right arm and Left arm
  - Left leg and left arm
37. How many small squares are present between two heavy lines on ECG paper:
- 5
  - 4
  - 3
  - 6
38. QRS complex indicates:
- Atrial contraction
  - Atrial relaxation
  - Ventricular relaxation
  - Ventricular Contraction
39. Counting the number of QRS Complexes, which of the following can be interpreted?
- Heart rate
  - Cardiac output
  - Stroke volume
  - Breathing rate
40. Which of the following are Bipolar leads:
- aVR ,aVL and aVF
  - V1, V2 and V3
  - I, II and III
  - V4, V5 and V6

41. Horizontally, each unit represents how many seconds:

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

42. In normal ECG the paper speed is 25 mm/sec, which other speed can be used for ECG under special circumstances:

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

43. 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.

44. P wave represents which of the following:

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

45. T Wave in an ECG represents:

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

46. In a normal individual, the heart rate can be determined by the \_\_\_\_\_ in an ECG

- a. Interval between two QRS complexes
- b. Number of P waves
- c. Interval between the P and T waves
- d. Number of T waves



47. Disturbance in cardiac rhythm is called as:

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

48. 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

49. 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

50. Hypokalemia is the condition of low potassium levels in your blood. Hypokalemia ECG changes are :

- a. ST segment elevation
- b. U wave (a position deflection after the T wave)
- c. Tall peaked T waves
- d. Widening of the QRS complex and increased amplitude

**ANSWER KEY****Recruitment test conducted on 23/01/2025 for post of ECG Technician  
under BFUHS, Faridkot**

1	A		26	A
2	D		27	D
3	A		28	C
4	A		29	B
5	A		30	C
6	A		31	D
7	A		32	C
8	D		33	C
9	B		34	C
10	D		35	C
11	B		36	A
12	A		37	A
13	A		38	D
14	D		39	A
15	D		40	C
16	D		41	A
17	A		42	A
18	A		43	B
19	D		44	A
20	A		45	C
21	A		46	A
22	D		47	A
23	D		48	C
24	B		49	A
25	B		50	B