

## Set No. 1

**IV B.Tech. II Sem., II Mid-Term Examinations, April-2014**

## Objective Exam

**Name:** \_\_\_\_\_ **Hall Ticket No.** \_\_\_\_\_

					A				
--	--	--	--	--	---	--	--	--	--

**Answer All Questions. All Questions Carry Equal Marks. Time: 20 Min. Marks: 10.**

**I. Choose the correct alternative:**

1. Einthoven triangle is used for defining \_\_\_\_\_ leads [     ]  
a) EEG                                  b) ECG                                  c) EMG                                  d) EOG
2. In bipolar leads, ECG is recorded by \_\_\_\_\_ electrodes such that the final trace corresponds to the difference of electrical potential existing between them [     ]  
a) 4                                  b) 3                                  c) 2                                  d) None of the above
3. The 12 lead configuration consists of \_\_\_\_\_ limb leads, \_\_\_\_\_ augmented unipolar leads and \_\_\_\_\_ chest leads [     ]  
a) 3,3,6                                  b) 3,6,3                                  c) 6,3,3                                  d) None of the above
4. \_\_\_\_\_ is a process by which cutting, coagulation and etc of tissues are obtained [     ]  
a) Defibrillation                                  b) Diathermy                                  c) Ventilator                                  d) None of the above
5. Pacemaker is a device capable of generating of artificial pacing in pulses and delivering them to \_\_\_\_\_ [     ]  
a) Heart                                  b) Brain                                  c) Both a & b                                  d) None of the above
6. Spenoidal electrodes are used to record \_\_\_\_\_ signals [     ]  
a) ECG                                  b) EEG                                  c) EMG                                  d) None of the above
7. Three channel demultiplexer is an example of \_\_\_\_\_ [     ]  
a) ECG                                  b) EEG                                  c) EMG                                  d) None of the above
8. \_\_\_\_\_ is a device used for measuring the rate of respiratory function [     ]  
a) Pnemuotachograph    b) Spirometer                                  c) Pacemaker                                  d) None of the above
9. The instrument used to measure lung capacity and volume is called \_\_\_\_\_ [     ]  
a) Pnemuotachograph    b) Spirometer                                  c) Pacemaker                                  d) None of the above
10. Impedance pneumography is a \_\_\_\_\_ method for the measurement of respiration rate [     ]  
a) Direct                                  b) Indirect                                  c) Both a & b                                  d) None of the above

**Cont....2**

**II Fill in the Blanks:**

11. Unipolar leads are classified as \_\_\_\_\_ leads and \_\_\_\_\_ leads.
12. In ECG recordings, while diagnosing the patient the abnormal patterns of ECG waves are present due to undesirable \_\_\_\_\_
13. \_\_\_\_\_ is used to measure blood pressure.
14. \_\_\_\_\_ is a process that involves the removal of chemical substances from the blood by passing it through tubes surrounded by semi permeable membranes.
15. The process of applying an electric shock to resynchronize the heart is called \_\_\_\_\_
16. \_\_\_\_\_ is the basic unit of nervous system.
17. In EEG machine, the electrode leads are plugged into a \_\_\_\_\_
18. \_\_\_\_\_ is the technique of analyzing the electrical activity of the heart by ECG's three axes at right angles to one another and displaying any two of these ECG's as a vector display on an X-Y oscilloscope.
19. The process of taking oxygen from environment, transporting it to the cells, removing carbon dioxide from cells and sending the waste into atmosphere is called \_\_\_\_\_
20. \_\_\_\_\_ is the most widely used instrument in recording the respiratory volume measurements

Code No: 58026

Set No. 2

**JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD**

**IV B.Tech. II Sem., II Mid-Term Examinations, April-2014**

**BIOMEDICAL INSTRUMENTATION**

**Objective Exam**

Name: \_\_\_\_\_ Hall Ticket No. 

						A				
--	--	--	--	--	--	---	--	--	--	--

**Answer All Questions. All Questions Carry Equal Marks. Time: 20 Min. Marks: 10.**

**I. Choose the correct alternative:**

1. \_\_\_\_\_ is a process by which cutting, coagulation and etc of tissues are obtained [     ]  
a) Defibrillation                      b) Diathermy                      c) Ventilator                      d) None of the above
2. Pacemaker is a device capable of generating of artificial pacing in pulses and delivering them to \_\_\_\_\_ [     ]  
a) Heart                                  b) Brain                                  c) Both a & b                      d) None of the above
3. Spenoidal electrodes are used to record \_\_\_\_\_ signals [     ]  
a) ECG                                  b) EEG                                  c) EMG                                  d) None of the above
4. Three channel demultiplexer is an example of \_\_\_\_\_ [     ]  
a) ECG                                  b) EEG                                  c) EMG                                  d) None of the above
5. \_\_\_\_\_ is a device used for measuring the rate of respiratory function [     ]  
a) Pnemuotachograph    b) Spirometer                      c) Pacemaker                      d) None of the above
6. The instrument used to measure lung capacity and volume is called \_\_\_\_\_ [     ]  
a) Pnemuotachograph    b) Spirometer                      c) Pacemaker                      d) None of the above
7. Impedance pneumography is a \_\_\_\_\_ method for the measurement of respiration rate [     ]  
a) Direct                                  b) Indirect                                  c) Both a & b                      d) None of the above
8. Einthoven triangle is used for defining \_\_\_\_\_ leads [     ]  
a) EEG                                  b) ECG                                  c) EMG                                  d) EOG
9. In bipolar leads, ECG is recorded by \_\_\_\_\_ electrodes such that the final trace corresponds to the difference of electrical potential existing between them [     ]  
a) 4                                  b) 3                                  c) 2                                  d) None of the above
10. The 12 lead configuration consists of \_\_\_\_\_ limb leads, \_\_\_\_\_ augmented unipolar leads and \_\_\_\_\_ chest leads [     ]  
a) 3,3,6                                  b) 3,6,3                                  c) 6,3,3                                  d) None of the above

**Cont.....2**

**II Fill in the Blanks:**

11. \_\_\_\_\_ is a process that involves the removal of chemical substances from the blood by passing it through tubes surrounded by semi permeable membranes.
12. The process of applying an electric shock to resynchronize the heart is called \_\_\_\_\_
13. \_\_\_\_\_ is the basic unit of nervous system.
14. In EEG machine, the electrode leads are plugged into a \_\_\_\_\_
15. \_\_\_\_\_ is the technique of analyzing the electrical activity of the heart by ECG's three axes at right angles to one another and displaying any two of these ECG's as a vector display on an X-Y oscilloscope.
16. The process of taking oxygen from environment, transporting it to the cells, removing carbon dioxide from cells and sending the waste into atmosphere is called \_\_\_\_\_
17. \_\_\_\_\_ is the most widely used instrument in recording the respiratory volume measurements
18. Unipolar leads are classified as \_\_\_\_\_ leads and \_\_\_\_\_ leads.
19. In ECG recordings, while diagnosing the patient the abnormal patterns of ECG waves are present due to undesirable \_\_\_\_\_
20. \_\_\_\_\_ is used to measure blood pressure.

### Set No. 3

**IV B.Tech. II Sem., II Mid-Term Examinations, April-2014**

## Objective Exam

**Answer All Questions. All Questions Carry Equal Marks. Time: 20 Min. Marks: 10.**

1. Spenoidal electrodes are used to record \_\_\_\_\_ signals [     ]  
a) ECG                                  b) EEG                                  c) EMG                                  d) None of the above
2. Three channel demultiplexer is an example of \_\_\_\_\_ [     ]  
a) ECG                                  b) EEG                                  c) EMG                                  d) None of the above
3. \_\_\_\_\_ is a device used for measuring the rate of respiratory function [     ]  
a) Pnemuotachograph    b) Spirometer                                  c) Pacemaker                                  d) None of the above
4. The instrument used to measure lung capacity and volume is called \_\_\_\_\_ [     ]  
a) Pnemuotachograph    b) Spirometer                                  c) Pacemaker                                  d) None of the above
5. Impedance pneumography is a \_\_\_\_\_ method for the measurement of respiration rate [     ]  
a) Direct                                  b) Indirect                                  c) Both a & b                                  d) None of the above
6. Einthoven triangle is used for defining \_\_\_\_\_ leads [     ]  
a) EEG                                  b) ECG                                  c) EMG                                  d) EOG
7. In bipolar leads, ECG is recorded by \_\_\_\_\_ electrodes such that the final trace corresponds to the difference of electrical potential existing between them [     ]  
a) 4                                  b) 3                                  c) 2                                  d) None of the above
8. The 12 lead configuration consists of \_\_\_\_\_ limb leads,\_\_\_\_\_ augmented unipolar leads and \_\_\_\_\_chest leads [     ]  
a) 3,3,6                                  b) 3,6,3                                  c) 6,3,3                                  d) None of the above
9. \_\_\_\_\_ is a process by which cutting, coagulation and etc of tissues are obtained [     ]  
a) Defibrillation                                  b) Diathermy                                  c) Ventilator                                  d) None of the above
10. Pacemaker is a device capable of generating of artificial pacing in pulses and delivering them to \_\_\_\_\_ [     ]  
a) Heart                                  b) Brain                                  c) Both a & b                                  d) None of the above

## Cont....2

**II Fill in the Blanks:**

11. \_\_\_\_\_ is the basic unit of nervous system.
12. In EEG machine, the electrode leads are plugged into a \_\_\_\_\_
13. \_\_\_\_\_ is the technique of analyzing the electrical activity of the heart by ECG's three axes at right angles to one another and displaying any two of these ECG's as a vector display on an X-Y oscilloscope.
14. The process of taking oxygen from environment, transporting it to the cells, removing carbon dioxide from cells and sending the waste into atmosphere is called \_\_\_\_\_
15. \_\_\_\_\_ is the most widely used instrument in recording the respiratory volume measurements
16. Unipolar leads are classified as \_\_\_\_\_ leads and \_\_\_\_\_ leads.
17. In ECG recordings, while diagnosing the patient the abnormal patterns of ECG waves are present due to undesirable \_\_\_\_\_
18. \_\_\_\_\_ is used to measure blood pressure.
19. \_\_\_\_\_ is a process that involves the removal of chemical substances from the blood by passing it through tubes surrounded by semi permeable membranes.
20. The process of applying an electric shock to resynchronize the heart is called \_\_\_\_\_

Code No: 58026

Set No. 4

**JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD**

**IV B.Tech. II Sem., II Mid-Term Examinations, April-2014**

**BIOMEDICAL INSTRUMENTATION**

**Objective Exam**

Name: \_\_\_\_\_ Hall Ticket No. 

						A				
--	--	--	--	--	--	---	--	--	--	--

**Answer All Questions. All Questions Carry Equal Marks. Time: 20 Min. Marks: 10.**

**I. Choose the correct alternative:**

1. \_\_\_\_\_ is a device used for measuring the rate of respiratory function [     ]  
a) Pnemuotachograph    b) Spirometer                      c) Pacemaker                      d) None of the above
2. The instrument used to measure lung capacity and volume is called \_\_\_\_\_ [     ]  
a) Pnemuotachograph    b) Spirometer                      c) Pacemaker                      d) None of the above
3. Impedance pneumography is a \_\_\_\_\_ method for the measurement of respiration rate [     ]  
a) Direct                              b) Indirect                              c) Both a & b                      d) None of the above
4. Einthoven triangle is used for defining \_\_\_\_\_ leads [     ]  
a) EEG                                  b) ECG                                  c) EMG                                  d) EOG
5. In bipolar leads, ECG is recorded by \_\_\_\_\_ electrodes such that the final trace corresponds to the difference of electrical potential existing between them [     ]  
a) 4                                      b) 3                                      c) 2                                      d) None of the above
6. The 12 lead configuration consists of \_\_\_\_\_ limb leads, \_\_\_\_\_ augmented unipolar leads and \_\_\_\_\_ chest leads [     ]  
a) 3,3,6                                  b) 3,6,3                                  c) 6,3,3                                  d) None of the above
7. \_\_\_\_\_ is a process by which cutting, coagulation and etc of tissues are obtained [     ]  
a) Defibrillation                      b) Diathermy                      c) Ventilator                      d) None of the above
8. Pacemaker is a device capable of generating of artificial pacing in pulses and delivering them to \_\_\_\_\_ [     ]  
a) Heart                                  b) Brain                                  c) Both a & b                      d) None of the above
9. Spenoidal electrodes are used to record \_\_\_\_\_ signals [     ]  
a) ECG                                  b) EEG                                  c) EMG                                  d) None of the above
10. Three channel demultiplexer is an example of \_\_\_\_\_ [     ]  
a) ECG                                  b) EEG                                  c) EMG                                  d) None of the above

**Cont.....2**

**II Fill in the Blanks:**

11. \_\_\_\_\_ is the technique of analyzing the electrical activity of the heart by ECG's three axes at right angles to one another and displaying any two of these ECG's as a vector display on an X-Y oscilloscope.
12. The process of taking oxygen from environment, transporting it to the cells, removing carbon dioxide from cells and sending the waste into atmosphere is called \_\_\_\_\_
13. \_\_\_\_\_ is the most widely used instrument in recording the respiratory volume measurements
14. Unipolar leads are classified as \_\_\_\_\_ leads and \_\_\_\_\_ leads.
15. In ECG recordings, while diagnosing the patient the abnormal patterns of ECG waves are present due to undesirable \_\_\_\_\_
16. \_\_\_\_\_ is used to measure blood pressure.
17. \_\_\_\_\_ is a process that involves the removal of chemical substances from the blood by passing it through tubes surrounded by semi permeable membranes.
18. The process of applying an electric shock to resynchronize the heart is called \_\_\_\_\_
19. \_\_\_\_\_ is the basic unit of nervous system.
20. In EEG machine, the electrode leads are plugged into a \_\_\_\_\_