Extra Tests

Chapter 1 (EMG)

1. To support weak muscles, various …….. have been designed.
a. prostheses **b**. orthoses **c**. prosthesis **d**. orthosis

….A…. engineering is a branch of biomedical engineering that deals with devices and procedures for restitution of human ….B….. function.

a. A) Biomechanical B) neuromuscular **b**. A) Orthopedic B) neuromuscular **c**. A) Rehabilitation B) physical **d**. A) Bioinstrumentation B) Cardiac

2. After data acquisition and rejection of muscular artifacts, off-line robust adaptive identification techniques are applied for retinal feature extraction. In deed, muscles act as a source of ….A….when data… B…. .

a. A) noise B) are acquired **b**. A) signal B) is collected **c**. A) noise B) is acquired **d**. A) signal B) are collected

3. The success of neuroprosthetic devices for the ….A…. of motor function in patients afflicted with neurological ….B…. or injury will require some restitution of touch function as well.

a. A)stimulation B) necrosis **b**. A) restoration B) paralysis **c**. A) innervation B) handicap **d**. A) processing B) wounds

4. A neuron is the basic ….A…. unit of the peripheral nervous system …. B…. the central nervous system.

a. A) anatomical, B) encoding **b**. A) neonatal, B) uniting **c**. A) functional, B) as well as **d**. A) principal, B) in accordance of

5. The myoelectric prosthesis is controlled by a ____ of appropriate.

a. A) series, B) stimulae **b**. A) sery, B) stimuli **c**. A) Sery, B) stimulae **d**. A) series, B) stimuli

6. When you pronounce "rehabilitation" , you should stress primarily on:
a. -ta- **b**. re- **c**. -ha- **d**.-tion

7. The cross-section of the skeletal muscle is ..... to the fibers of motor units.
a. horizontal **b**. oblique **c**. perpendicular **d**. transient

8. The frequency ..... .of the Doppler signals are analyzed for detection of the velocity distribution
a. spectrum **b**. spectral **c**. spectral **d**. spectra

9. The electrophysiological ...(A) ..., emerging from the interactions of several neurons, ...(B)... through differential equations.

a. A) phenomenon	**b**. A) phenomena	**c**.A) phenomenon	**d**.A) phenomena
B) are being studied	B) are studied	B) has been studying	B) is studied

10. Neural control refers to the ...(A)... of inputs to a particular ...(B)... of the nervous system to cause desirable output behavior.

a. A) mechanism	**b**. A) knowledge	**c**. A) application	**d**. A) manipulation
B) model	B) formation	B) pattern	B) structure

11. Central...(A)...generat0rs maintain the rhythmic movements that produce the ..(B)...

a. A) spinal	**b**. A) motor	**c**. A) pattern	**d**. A) trigger
B) flexion	B) pursuit	B) locomotion	B) posture

12. The success of neuroprosthetic devices for the…… (A)……. of motor function in patients afflicted with neurological …… (B)…….... or injury will require some restitution of touch function as well.

a. A) stimulation	**b**. A) restoration	**c**. A) innervation	**d**. A) processing
B) necrosis	B) paralysis	B) handicap	B) wound

13. The results show that we can successfully record neural…… (A)…… and evoke limb movement through The…… (B)……. cord of some vertebrates

a. A) activity	**b**. A) stimulus	**c**. A) stimulation	**d**. A) activation
B) spinal	B) internal	B) spine	B) vertebra

14. A tactile prosthetic device, that records somatosensory information from the nerves, bypasses the site of spinal ……(A)…… and returns the signal to the cortex for further…… (B)…... by the higher centers.

a. A) vertebra	**b**. A) vessels	**c**. A) junctions	**d**. A) injury
B) restoration	B) application	B) amplification	B) processing

15. Most patients with…… (A)….. of the upper……. (B)…… may receive artificial limbs.

a. (A) flexion	**b**. (A) amputation	**c**. (A) amputation,	**d**. (A) flexion
B) extremity	B) prosthesis	B) extremity	B) prosthesis

16. Externally-powered…… (A)….. lack the….. (B).… feedback that is intrinsic in artificial limbs with cable control.

a. (A) prostheses, (B) proprioceptive **b**. (A) prostheses (B) comprehensive **c**. (A) prosthesis (B) proprioceptive **d**. (A) prosthesis (B) comprehensive

17. To restore body functions to a former capacity is within the 'discipline of……..

a. kinesthetic **b**. anesthesiology **c**. kinesiology **d**. rehabilitation

18. The record taken by the special device for collecting myoelectricity is called:

a. electromyograph **b**. electromyography
c. electromyographer **d**.Electromyogram

19. In the word "rehabilitation", on which part should we stress during pronunciation?

a. -ta- **b**. re- **c**. -ha- **d**. -tion

20. There are different types of ..... needle and wire electrodes.

a. surface **b**. electrolytic **c**. percutaneous **d**.External

21. What is the plural form of stimulus?

a. stimulus **b**. stimula **c**. stimuli **d**. stimulae

Chapter 2 (ECG)

1. make it possible to determine the…... (A)…… heart rate during ….. (B)…….

a. A) fetal , B) labor **b**. A) arrhythmia B) epilepsy **c**. A) fetal B) epilepsy **d**. A) labor B) arrhythmia

2. irregular heartbeat is termed as:

a. arrhythmia **b**. hemorrhage **c**. coagulation **d**. arteriosclerosis

3. Rapid and unusual activity of the natural pacemaker is:

a. cardiomyopathy **b**. bradycardia **c**. tachycardia **d**. circumcision

4. ..... can lead to a changing amplitude or irregularity of pulsation.

a. Quantification **b**. Arrhythmia **c**. Angiography **d**. Plethysmography

Chapter 3 (EEG)

1. Analysis of the evoked potentials and the ..... provides a non-invasive diagnostic method for the clinician.

a.electroencephalograph **b**.electroencephalogram
c.electroencephalography **d**.electroencephalographer

2. ...(A)... adapting neurons sense the velocity and ...(B)... of the stimulus.

a.A) rapid	**b**. A) rapidly	**c**. A) rapid	**d**. A) rapidly
B) reception	B) reception	B) acceleration	B) acceleration

3. signals project the electrical field generated by the heart onto the mutually…. (A)….. transverse, frontal and….. (B)….. planes.

a. (A) horizontal	**b**.(A) orthogonal	**c**. (A) orthogonal	**d**. (A) horizontal
B) sagittal	B) sagittal	B) perpendicular	B) perpendicular

4. A linear phase digital bandpass filter removes the baseline….. (A)…. and power-line….. (B)…...

a. (A) drift	**b**. (A) interference	**c**. (A) interference	**d**. (A) drift
(B) screening	(B) drift	(B) screening	(B) interference

5. Compared to other ....., such as the ECG, the EEG is extremely difficult to interpret.

a. bipolars	**b**.biopotentials	**c**.wavelets	**d**. circumstances

Chapter 4 (ERG)

1. After data acquisition and rejection of muscular artifacts, off—line robust adaptive identification techniques are applied for retinal feature extraction . indeed, muscles act as a source of ……A……..when data……B……

a. A) noise	**b**. A) signal	**c**. A) noise	**d**. A) signal
B) are acquired.	B) is collected.	B) is acquired.	B) are collected.

Chapter 5 (Blood pressure measurement)

1. Through cardiac ……A….. , it is possible to detect abnormal flow in….B……. arteries.

a. A) augmentation	**b**. A) catheterization	**c**.A) implantation	**d**.A) valve
B) liver	B) coronary	B) drain	B) renal

2. Abnormally high blood pressure is called…….

a. hemostasis	**b**. hypotension	**c**. hypertension	**d**. hemorrhage

3. The …….. carries blood away from the heart; and the ……carries b1ood in to the heart.

a. A) vein,	**b**.A) atrium	**c**. A) artery	**d**. A) ventricle
B) artery	B)ventricle	B) vein	B) atrium

4. Accurate measurement of blood flow Ito tissues is necessary in . ..... areas of biological research.

a. infinity	**b**. definite	**c**. infinitesimal	**d**. define