



عنوان درس: زبان تخصصی، زبان تخصصی مهندسی پزشکی

رشته تحصیلی/کد درس: مهندسی برق - گرایش مهندسی پزشکی (بیوالکتریک)، مهندسی پزشکی - بالینی ۱۳۱۸۰۱۶ - مهندسی پزشکی - گرایش بیومتریال، مهندسی پزشکی - گرایش بیومکانیک ۱۳۱۸۰۵۲

1- "Venous occlusion plethysmography is one of the oldest method of blood flow measurement that is noninvasive and can yield highly accurate results."

Venous occlusion plethysmography

1. can measured blood flow invasively
2. can yield highly accurate results
3. is one of the newest method of measurements of blood flow.
4. cannot be used for measurement of blood flow

2- "The attenuation in air results from absorption due to viscosity. However, in soft tissue, the attenuation is mainly due to relaxation, and is approximately proportional to the frequency." What is the attenuation in soft tissue proportional to?

1. frequency
2. relaxation
3. air
4. viscosity

3- "The advances in technology of electrocardiography have greatly simplified the procedure so that ECG can be recorded quickly in the patient's home or in a health center as well as in hospitals." The ECG can be recorded

1. only in hospitals
2. only in the patient's home
3. only in the patient's home and in a health center
4. in the patient's home or in a health center or in hospitals

4- "Providing mechanical protection for vital organs, supporting and movement of the body by bone are possible because bone is both stiff and strong."

Which of the following choices is wrong?

1. Bone is not stiff and strong.
2. Bone can provide mechanical protection for vital organs.
3. Bone can support body.
4. Bone play a role in movement of the body.



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5- "The current drain is depend on the types of electrode as well as the circuitry and type of pulse generation of the pacemaker."

What does the current drain depend on?

1. the types of electrode
2. the circuitry and type of pulse generation
3. the type of pace maker
4. the types of electrode, the circuitry and type of pulse generation

6- "The surgeon is able to switch the generator on and off, usually by means of a foot switch and the current passing can be controlled by a front panel control on the instrument."

..... is used to control the current in an electrosurgery unit.

1. Foot switch
2. Front switch
3. Foot panel
4. Front panel

7- "Earlier surgical procedures, whether they involved biomaterials or not, were generally unsuccessful as a result of infection."

Earlier surgical procedures were unsuccessful because of

1. infection
2. using biomaterials
3. not using biomaterials
4. surgical techniques

8- The word "artefact" is best described as

1. the artificial response
2. the voluntary process
3. the artificial product
4. the spontaneous activity

9- The word "stimulus" is best described as anything that

1. excites or incites an organism to function, become active or respond
2. change the amplitude of the ERG signals
3. determines the electrical activity of the retina
4. arises from the outer segments of retinal receptors

10- "Evoked potential" is an electrical response in the brainstem or cerebral cortex that is.....

1. produced by a specific frequency
2. derived from a specific electrode
3. elicited by a specific stimulus
4. displayed in a specific pen recorder



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11-Saline is the substance that

1. absorb liquid and gases
2. contains a salt of alkali metal
3. conducts an electrical activity
4. decrease electrical activities on the surface of the body

12-The word "lymphatic" refers to a vessel that

1. produces collagen
2. transports plasma
3. removes nutrients
4. conveys lymph

13-"Brittle" refers to substances which are

1. soft and easily shaped
2. hard but easily broken
3. hard and not easily broken
4. stiff and shaped

14-"to distend" means

1. to enlarge
2. to combine
3. to reject
4. to remove

15-The word "homogenous" in "Catalysis may be either homogeneous or heterogeneous." means

1. similar
2. dissimilar
3. complete
4. incomplete

16-The word "supersede" in "The earlier systems have been supersede because of their slower scan times and patient throughput." can be replace with

1. represent
2. insert
3. replace
4. influence

17-Which of the following choices is the meaning of the word "implants"?

1. to stimulate
2. to insert
3. to deliver
4. to discharge

18-The word "hazardous" as used in "The chemicals in paint can be hazardous to health." means

1. continuous
2. comfortable
3. dangerous
4. available

19-The word "infection" has nearly the same meaning as

1. psychological
2. congenital
3. physiological
4. contagious

20-There is also a in frequency range between normal and abnormal heart.

1. differs
2. different
3. difference
4. differences



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21-In ultrasonography, the intensity of the is related to the ratio of the characteristic acoustic impedance across the interface.

1. reflect 2. reflection 3. reflective 4. reflectively

22-The greatest area of and use of centrifuges in the research field has involved the use of centrifugation on what is essentially a private scale.

1. developed 2. developing 3. developer 4. development

23-Small potentials between any two surfaces near the patient can cause a microshock.

1. connected 2. connection 3. connector 4. connective

24-The heart valves could be with artificial devices.

1. replace 2. replacement 3. replaced 4. replaceable

25- measurements of motor unit activity and nerve conduction velocity are used clinically in the investigation of neuromuscular disease.

1. Electromyographic 2. Electrocardiographic
3. Electroretinographic 4. Electroradiographic

26-The term biomechanics often notes that area of biomedical engineering concerned with human biodynamics.

1. partially 2. axially 3. normally 4. specifically

27-The outer layer of cortex beneath the scalp electrodes is the main source of the electrical recorded.

1. potentials 2. versions 3. derivations 4. systems

28-When the natural heart rate fell below the preset rate, the pacemaker would be to send an electrical impulse to cause the heart to beat.

1. included 2. inhibited 3. instructed 4. informed

29-The role of biomaterials has been influenced by advances in many areas of medicine.

1. materially 2. considerably 3. systemically 4. biologically

30-Endoscope is an illuminated optic instrument for the the interior of a body cavity or organ.

1. introduction 2. visualization 3. examination 4. generation