



Very Important: each part of question must be written in a separate page

QUESTION (1)(40 MARKS):

A- Mention the origin and the branches of the radial nerve (diagram needed) (8marks)

B- Discuss the Anastomosis around elbow (5marks)

C- Discuss the Ligaments of the shoulder joint (6 marks)

D- Describe the Borders and contents of the Cubital fossa (6marks)

E- draw a diagram illustrated the formation of the brachial plexus (roots, division, cords and branches. (5 marks)

F- Enumerate the muscles of the pectoral region and describe TWO of them (origin, insertion, action and nerve supply) (8 marks)

G- Problem solving: (2 marks)

A pregnant patient presents with a history of numbness and tingling in her right thumb and index finger during each of her previous four pregnancies. Symptoms are worse in the morning and could be somewhat relieved by vigorous shaking of the wrist. Examination revealed atrophy and weakness of the abductor pollicis brevis, the opponens pollicis, and the first two lumbrical muscles. Sensation was decreased over the lateral palm and the palmar aspect of the first three digits. Numbness and tingling were markedly increased when the wrist was held in flexion for 30 seconds.

1-The symptoms suggest damage to which of the following?

- a. The radial nerve
- b. The median nerve
- c. The ulnar nerve
- d. Musculocutaneous nerve

2- what is your diagnosis

QUESTION (2) (MCQ)...Choose the correct answer:(10 MARKS):

1. The artery that supplies the bone marrow is:

- A. Periosteal artery.
- B. Epiphyseal artery.
- C. Metaphyseal artery.
- D. Nutrient artery.

2. Pneumatic bones are present in the:

- A. Upper limb.
- B. Skull.
- C. Lower limb.
- D. Thorax.

3. All the followings form the articular surfaces of the elbow joint EXCEPT:

- A. Medial epicondyle
- B. Capitulum of humerus
- C. Head of radius
- D. Troclear notch of ulna

4. One of the following muscles is NOT a rotator cuff:

- A. Supraspinatus.
- B. Infraspinatus.
- C. Teres major.
- D. Teres minor.

5. Ulnar nerve supplies the following muscle in the forearm:

- A. Flexor carpi ulnaris
- B. Flexor digitorum superficialis
- C. Palmaris longus
- D. Pronator quadrates

6. The following nerve is a branch from posterior cord of brachial plexus:

- A. Musculocutaneous nerve
- B. Median nerve
- C. Ulnar nerve
- D. Lower subscapular nerve

7. Supinator muscle is supplied by:

- A. Median nerve
- B. Anterior interosseous nerve
- C. Radial nerve
- D. Posterior interosseous nerve

8. One of the following muscles share in adduction of the wrist joint:

- A. Flexor carpi radialis.
- B. Flexor carpi ulnaris.
- C. Flexor pollicis longus.
- D. Adductor policis.

9. Anterior interosseus nerve is a branch of:

- A. Median nerve
- B. Ulnar nerve
- C. Radial nerve
- D. Musclocutaneous nerve

10. Carpal tunnel transmits the followings EXCEPT:

- A. Median nerve
- B. 4 tendons of flexor digitorum superficialis
- C. 4 tendons of flexor digitorum profundus
- D. Tendon of flexor carpi radialis

شاه بیری

With My Best Wishes
Dr/ Manal El-Bermawy

Kafr El-Sheikh University
Faculty of Physical Therapy
Class: First Year (Freshmen)
Course Title: English Language



Time Allowed: 2 Hrs.
Final Exam
Total Mark: 80
Date: 13/01/2018

ATTEMPT THE FOLLOWING QUESTIONS:

I) Write an essay on the topic below:

Health and Illness

20 Marks

II) Complete the following statements:

20 Marks

1. The English expressions for the words *coxa* and *femur* are and
2. The left lung is divided into
3. Medical problems associated with 'stools' relate to the function of
4. A PRHO is
5. The function of the *bladder* can be explained as follows:

III) Re-write the following sentences in their correct lexico-grammatical form:

20 Marks

1. This time last year, many computer companies were launching a new antivirus program.
2. It is certain that many students can be worried about oral, and not written, exams.
3. The doctor insisted that the patient takes no anaesthetic for the headache.
4. I wish the driver will be cautious enough as to avoid any accidents.
5. With too many corpses of animals in the seas, diseases will have spread across many parts of the country.

IV) Translate the following passage into Standard Arabic:

20 Marks

Consultant physicians and surgeons are responsible for a specific number of patients in the hospital. Each consultant has a team of junior doctors to help care for those patients. In many hospitals, there are multidisciplinary teams which consist not only of doctors but also of physiotherapists and other allied health professionals. When patients enter – or are admitted to – hospital, they are usually seen first by one of the junior doctors on the ward where they will receive treatment and care. The junior doctor clerks them – takes their medical history – and examines them. Some time later, the registrar also sees the patients, and may order investigations, or tests, for example X-rays or an ECG, make a provisional diagnosis, and begin treatment. The consultant usually sees the new admissions – people who have recently been admitted to the ward – for the first time on one of the regular ward rounds, when the management of the patients is discussed with the registrar. Consultants also decide when a patient is ready to be discharged (sent home). On the ward round, the consultant is accompanied by the team and a nurse, and they visit all the patients in the consultant's care.

BEST OF LUCK,
Amir H. Y. Salama

- 23- Intervention/treatment is implemented and modified in order to reach agreed goals and may include manual handling. ()
- 24- Physical therapy should be oriented toward the patient's resources rather than the person's problems. ()
- 25- A well-documented informed consent is the hallmark of any ethical research work. ()
- 26- Interprofessional collaborative practice is not essential for improvement in patient and family health outcomes. ()
- 27- Mention functional support financial is important in PT research. ()
- 28- Frequently thinking of the patient when away from work is a good sign of patient care. ()
- 29- Professional boundaries circumscribe the therapeutic relationship between a patient and physical therapist. ()
- 30- Informed consent form should include an explanation of the purpose of the research and the expected duration of the subject's participation. ()

31- Complete the following. (10 grades)

1- Benefits of interprofessional collaboration:

- A.
- B.
- C.
- D.

32- Give short notes about: (10 grades)

- A. Professional Boundaries. (only definition and its types)

ETHICS

First Year (1st Semester)
Kafrelsheikh University
Faculty of Physical Therapy
Basic Sciences Department

(Code: PT)

Date: 6 / 1 /2018
Time Allowed: 2 Hours
Total Marks: 80 Marks
Number of Pages: 4

I. Multiple choice questions (28 grades)

Choose A if the first sentence is true. Choose B if the second sentence is true.
Choose C if the two sentences are true. Choose D if the two sentences are false.

1. Ethical committee:
 - A. Is the most important checkpoint for promoting ethical research in the country.
 - B. Involve prolonged academic training and a formal qualification.
2. Characteristics of a Profession:
 - A. Extensive period of education
 - B. Skill based on theoretical Knowledge
3. Core Values: Social Responsibility is related to:
 - A. Physical therapists shall participate in efforts to meet the health needs of people locally, nationally, or globally.
 - B. Physical therapists shall be accountable for making sound professional judgments.
4. Diagnosis and prognosis arise from
 - A. the examination and evaluation
 - B. represent the outcome of the process of clinical reasoning
5. The purpose of the diagnosis in physical therapy:
 - A. Is to guide physical therapists in determining the prognosis and most appropriate intervention strategies for patients.
 - B. reveals findings that are not within the scope of the physical therapist's knowledge
6. Discontinuation is:
 - A. The process of ending physical therapy services provided during a single episode of care.
 - B. The physical therapist determines that the patient/client will no longer benefit from physical therapy
7. Prognosis is:
 - A. Identification of existing or potential impairments.
 - B. Determination of the predicted optimal level of improvement in function.
8. Discharge is the process of ending physical therapy services
 - A. Because the anticipated goals and expected outcomes of treatment have been achieved.
 - B. The physical therapist determines that the patient/client will no longer benefit from physical therapy

9. Code of Ethics is built upon five roles such as:
 - A. Consultation.
 - B. Research
10. Physical therapy delivered in a variety of settings that allow it to achieve its purpose such as:
 - A. Education and research centers.
 - B. Out-patient clinics.
11. From factors important to successful physical therapy:
 - A. A physical therapist should become too involved with the patient's personal or social problems.
 - B. Patient motivation is a vital component of successful therapy
12. Purposes of Code of Ethics are to:
 - A. Define the ethical principles that form the foundation of physical therapist
 - B. Provide guidance for physical therapists facing ethical challenges, regardless of their professional roles and responsibilities
13. Physical therapy Ethics in research:
 - A. Mention functional support financial
 - B. Control group should be used twice.
14. Informed consent form should include:
 - A. An explanation of the purpose of the research and the expected duration of the subject's participation.
 - B. A description of any benefits to the subjects or to others that may reasonably be expected from the research.

II. Put (v) or (x) for each statement (32 grades)

- 15- Physical therapists are integral members of the primary care team and are involved in prevention of disability and promotion of positive health. ()
- 16- Diagnosis in physical therapy is the result of a process of clinical reasoning ()
- 17- One of physical therapist responsibilities is prevention of impairments and activity limitations. ()
- 18- Diagnosis and prognosis arise from the examination and evaluation ()
- 19- Discharge is the process of ending physical therapy services provided during a single episode of care because the anticipated goals and expected outcomes of treatment have not been achieved ()
- 20- Evaluation is the process of making clinical judgments, based on examination data, to create a problem list for each patient. ()
- 21- Discontinuation is the process of ending physical therapy services provided after successful treatment achieved. ()
- 22- In physical therapy ethics and laws are the same meaning. ()



Answer the following questions

1. Give an account on Skeletal Muscles with references to The triad Tubular System.
(7 marks)
2. Describe the types of Connective tissue fibers.
(5 marks)
3. State the histological structure of Stratified squamous epithelium.
(5 marks)
4. Give an account on Osteoclasts Cell (Sites, L.M., E.M. and functions)
(3 marks)
5. Describe the Characteristics of Aorta.
(3 marks)
6. Mention fate of primary lysosomes.
(5 marks)
7. State the shape and structure of Red Blood Corpuscles & adaptation to their functions.
(5marks)
8. Discuss the structure of Elastic Cartilage.
(7 marks)
9. Compare between different types of Ganglia.
(5 marks)
10. Name two sites for each of the following:
a- Simple squamous epithelium.
b- Simple cuboidal epithelium.
c- Simple columnar ciliated epithelium.
d- Transitional epithelium.
e- Pseudo-stratified columnar ciliated epithelium.
(5 marks)

Best Wishes
Dr. Maha Abo Gazia



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Best Wishes
Dr. Maha Abo Gazia

Kafrelsheikh University
Faculty of Physical Therapy
1st year
Date : 30/12/2017
Score: 80
Time: 2 hours



Psychology of Handicapped

Answer the following question:(80 Marks)

(A) Write short notes about: (60 Marks)

- 1- Memory: definition, and types.(15 Marks)
- 2- Psychology: definition, goals, and branches.(15 Marks)
- 3- Motivation: definition, and types.(15 Marks)
- 4- Endocrine glands and its effects on behavior. (15 Marks)

(B) Sign (√) or (X): (20 Marks)

- 1- John Watson is the founder of behaviorism. ()
- 2- Assistive technology is one of treatment methods that physical therapists use to help patients ()
- 3- There are two types of reinforcement. ()
- 4- Dyslexia is one of learning disabilities. ()
- 5- The attention may be selective. ()
- 6- Psychiatry focused on the diagnosis, treatment of mental, emotional and behavioral disorders. ()
- 7- There are three types of punishment. ()
- 8- Displacement means that the old information will push out part of the new information. ()
- 9- Dyscalculia is disability of spoken language.()
- 10- Blindness and ocular trauma are Hearing disability.()

Best Wishes,

Dr. AmalZayed

الزمن : ساعتين.
التاريخ : ٢٧/١٢/٢٠١٧

امتحان الفصل الدراسي الخريفي
المستوي الأول
مادة: « حقوق الإنسان »

جامعة كفر الشيخ
كلية العلاج الطبيعي

أولاً: اكتب في موضوع واحد مما يلي:

١. عرف الرشوة لغة واصطلاحاً، ثم بين حكمها، ووضح الفرق بين الهدية والرشوة.
٢. وضح حق الإنسان في الاسم، وكذلك حق الإنسان في الوطن.

ثانياً: اكتب في موضوعين من الموضوعات التالية:

١. الأساليب غير الديمقراطية لنشأة الدساتير.
٢. إعادة النظر في الدستور.
٣. نهاية الدساتير.

مع تمنياتنا للجميع بالنجاح والتوفيق



Answer the following questions? (Each question 10 marks)

Q1- Discuss mechanisms of blood coagulation?

Q2- Enumerate Functions of?

1- Red blood cells.

2- Plasma proteins.

Q3- Autonomic ganglia: definition, types and functions?

Q4- Mention functions of sympathetic to head& neck and its lesion?

Q5- Resting membrane potential : definition, values and causes?

Good luck



Communication skills (Final exam)

(Code: 20500)

I: Choose the correct answer

(30 Marks)

- 1- "Before I finish" is an expression used in of presentation
(Introduction - conclusion – main body)
- 2- Listening of audience to what he wants to listen is listening
(comprehensive- selective-critical)
- 3- We must be focus and send short messages when we deal with
personality (emotive-reflective-directive)
- 4- When we deal with.....personality we need to use the fact in our
discussion (emotive-reflective-directive)
- 5- One of environmental barrier of sending messages are(gender-
light- culture)
- 6- Listening with think about something else is..... Listening (ignoring-
inattentive- critical)
- 7- Given direction to find location needtype of listening
(comprehensive- inattentive- appreciative)
- 8- This is more difficult when giving longer presentations in that there is a lot of
material to be memorized, this istype of presentation. (memorized –
impromptu- read)
- 9- When we deal with.....personality we need to tell all details (emotive-
reflective-directive)

- 10- The type of questions used to get the person attention (Direct– Hypothetical - Probing) questions.
- 11- Direct eye contact when listening means (remember- imagination- interest).
- 12- Personal zone usually used for (Family – sports– social) interaction
- 13- Slow nodding of the head indicate (refuse – impatience - interest) with the speaker.
- 14- The word account (7%- 55% -38%) for the meaning of message
- 15- Emotions can express by (tone- speed- pitch) of voice.

II- Choose (A) if the first sentence is true Choose (B) if the second sentence is true
Choose (C) if the two sentences are true Choose (D) if the two sentences are false

(20 marks)

1-Feedback

- A- It enables the sender to evaluate the effectiveness of the message
- B- In good communication the sender can take another step without it

2- Empathetic listening

- A- Need concentration by mind for every word as robot
- B- When we listen to distressed friend who want to send his feeling

3-Communication

- A- Is a passive process between the subjects.
- B- Our quality to do relationship depend on our quality of communication

4-To become good presenter

- A- Prepare and training on the topic of presentation
- B- Understanding the audience of your presentation

5- You can get the attention of your audience by

- A-Neglect their feedback
- B-Make active participation by ask question

6- Fear of presentation

- A-Is normal emotional responses to situations
- B-Can overcome this fear by good training

7-Body language

- A-Is conscious part of communication
- B-Represented 7% of our communication

8-Memorized type of presentation

- A-Is the easy type of presentation
- B-Less contact of audience

9- Extemporaneous presentation

- A-This involves cue cards or slides on which you summarize the main points of presentation
- B-Loss contact with audience

10-The sender in the message must has

- A-Clear thinking
- B-Decoding the message

III: Put \sqrt or \times

(10 marks)

- 1- Feedback is the response or reaction of the receiver after perceiving or understanding the message ()
- 2- Communication is an art need passive participation()
- 3- Body language is a conscious part of communication()
- 4- Each person has different respond to the same stimulus or message()
- 5- Effective communication depend on active listening()
- 6- Attentive listener concentrate in each word as a robot()
- 7- Listening process does not require voluntary attention or conscious effort()
- 8- Feedback should focus on person, not the issue of discussion()

- 9- Open body language can come from passivity, aggression, acceptance, supplication, or relaxation ().
- 10- Facial expressions express not only the emotion but the degree of emotion()

IV: Give the meaning in one word

(10 marks)

- 1- Faulty understandings of the message
- 2- Process require voluntary attention and then making sense of what is heard
- 3- Is one of interpersonal skills affecting our ability to develop effective working relationship.
- 4- It is the process of presenting the content of topic to an audience consists of one or more.
- 5- This is type of presentation involves giving a talk with no prior planning, and is often the least preferred method of presentation
- 6- Type of posture caused by injury, illness or skeletal deformities
- 7- Form of non-verbal communication, are not always straightforward to understand represent 55% of communication.
- 8- Brief , involuntary expression betray emotion, and they typically last 1/25 of a second
- 9- Type of question used to get other to think or reflect.
- 10- Part of presentation in which the presenter introduces himself to audience and gives short note about his sequence of topic.

V: Enumerate

(10 Marks)

- 1- The common sources of noise, which can affect communication accuracy and effectiveness.
- 2- Types of Questions

With our best wishes

Kafrelsheikh University
Faculty of physical therapy
Date 25/5/2017
Time allowed: - 2 Hours



History of medicine

Give short a count on:-

- 1- Traditional Chinese medicine .
(20 Marks)
- 2- Islamic scientist have a great important effect in medicine **(20 Marks)**
- 3- The role of Roman medicine is very important .
(20 Marks)
- 4- Is history of Medicine Just About usually subject? **(10 Marks)**
- 5- During the 19th century the world changed dramatically **(10Marks)**

Good luck
Prof Dr/Abd El-Aziz Sherif



Answer all the following questions:

Choose one answer per question:

(50 Marks)

1- Light can travel in

- A) air only. B) vacuum only.
C) both air and vacuum. D) none of mediums.

2- Which of the following statements concerning the velocity of action potential propagation is correct?

- A) Is independent of an axon's diameter
B) Depends on the thickness of the myelin around the axon
C) Will be unaffected if the axon becomes demyelinated
D) Is fastest in unmyelinated axons

3- ECGs are frequently ordered through computerized systems.

- A) True B) False

4- Which of the following statement is incorrect

- A) Photoelectric emission does not occur below the threshold frequency
B) The photoelectric current increases with the frequency of incident light
C) Threshold frequency does not depend on the metal used

5- Thermocouple thermometer is

- A) less responsive.
B) very responsive.
C) least responsive thermometer.
D) unresponsive thermometer.

6- Incident ray, reflected ray and normal lie at same point' is a true statement of refraction.

- A) Right. B) Wrong.
C) May be right or may be wrong. D) Neither right nor wrong.

7- Electrical impulses gather and accumulate in which part of a neuron, in order to initiate an action potential?

- A) Dendrites B) Axon hillock
C) Axon terminal branches D) Node of Ranvier

8- When the frequency of the incident light is less than the threshold frequency

- A) a little photoelectric current is produced B) a large photoelectric current is produced
C) no photoelectric current is produced D) the velocity of the photoelectrons is large

9- In a photon-electron collision, one photon can eject two or more electrons

- A) True B) False

10- Which of following statements related to waves is/are incorrect?

- A) It provides a mechanism for transfer of energy from one point to another without transfer of material.
B) All waves have same speed i.e. equal to 3×10^8 m/s.
C) The source of any wave is vibration or oscillation.
D) All of above.

11- A medical assistant should include which of the following in preparing a patient for cryosurgery?

- A) place a grounding pad somewhere on the patient's body
B) ask the patient to put on safety goggles
C) inform the patient that the initial sensation of cold will be followed by a burning sensation
D) position the patient for the administration of a general anesthetic

12- The photoelectric current depends upon

- A) the frequency of incident photon only
B) the intensity and the frequency of incident radiation
C) the intensity of incident radiation only
D) the temperature of cathode

13- The lowest rate of ultrasound absorption occurs in:

- A) Fat.
- B) Air.
- C) Bone.
- D) Lung.

14- Maximum kinetic energy of photoelectron is Intensity of incident radiation

- A) directly proportional to
- B) inversely proportional to
- C) independent of
- D) directly proportional to square root of

D) The emission of photoelectrons is an instantaneous process

15- Transfer of thermal energy by means of currents in fluids is termed as

- A) Conduction.
- B) Convection.
- C) Radiation.
- D) Convection and radiation.

16- Which of the following statements concerning the action potentials of nerve cells is correct?

- A) They result from a large increase in the membrane permeability to sodium ions
- B) They can summate one with another
- C) They may vary considerably in amplitude
- D) They become larger as stimulus strength increases

17- Regarding the regulation of body temperature:

A) As the skin possesses thermoreceptors, its temperature is regulated more closely than the core temperature.

B) During water immersion, heat is mainly lost via radiation

C) The thalamus is the centre for integrating thermal information.

D) In a temperate climate under normal conditions, the greatest loss of body heat occurs through radiation.

18- Bend of light rays or image in denser medium is termed as

- A) Reflection.
- B) Opacation.
- C) Refraction.
- D) Transpiration.

19- Which of the following statements concerning the neuromuscular junction is correct?

- A) The muscle membrane possesses muscarinic receptors
- B) The motor nerve endings secrete acetylcholine
- C) Curare leads to prolongation of neuromuscular transmission
- D) The motor nerve endings secrete noradrenaline (norepinephrine).

20- Which of the following statements about the ECG are not true?

- A) The P wave of the ECG reflects atrial contraction
- B) The P-Q interval is normally about 0.1 s.
- C) The QRS complex reflects the start of ventricular depolarization.
- D) The T-wave reflects the repolarization of the ventricular fibres.

21- A stimulus can be caused by:

- A) A change in the environment
- B) Sensory deprivation
- C) A constant environment

22- Which of the following statements about the central nervous system (CNS) and sensory neurons is true?

- A- The CNS sends impulses along sensory neurons to receptors
- B- Sensory neurons carry impulses from receptors to the CNS
- C- Receptors receive impulses from the sensory neurons through the CNS

23- The peripheral nervous system includes the nerves, which are neurons with cell bodies that occur in the

- A) sympathetic nervous system
- B) motor system
- C) brain, spinal cord, or in ganglia
- D) autonomic system

- 24- Waves that travel in a direction parallel to direction of vibration are known as**
 A) Transverse waves. B) Longitudinal waves.
 C) Water waves. D) Electromagnetic waves.
- 25- Which of the following is poor conductor to heating?**
 A) Connective tissues. B) Blood.
 C) Muscles. D) Fatty cells.
- 26- It is the treatment by using low temperature applied either locally or generally**
 A) Hydrotherapy B) Electrotherapy
 C) Manualtherapy D) Cryotherapy
- 27- The maximum Kinetic Energy of photoelectrons increases with increase in frequency. It is independent of intensity**
 A) True B) False
- 28- The number of photoelectrons emitted per second (rate of photoelectrons emission) from a given metal is directly proportional to intensity. It is independent of frequency**
 A) True B) False
- 29- Maximum kinetic energy of photoelectron is Frequency of incident radiation**
 A) directly proportional to B) inversely proportional to
 C) independent of D) directly proportional to square root of
- 30- An ECG can only be performed with a physician's order to do so.**
 A) True B) False
- 31- Clinical equipment that contains wires and cords in the same room with you and the patient will not affect the ECG tracing.**
 A) True B) False
- 32- Spreading of wave as it passes through a gap or around an edge is called**
 A) reflection. B) refraction.
 C) diffraction. D) superposition.
- 33- Freezing point of ethyl alcohol is 156 K, which is equal to**
 A) 426°C. B) 117°C
 C) -426°C D) -117°C
- 34- Instrument used to measure temperature is termed as**
 A) Barometer. B) Thermometer.
 C) Manometer. D) Galvanometer.
- 35- Property of thermetic substances used by thermometer to measure temperature is**
 A) The chemical property. B) The physical property.
 C) The resistance property. D) Repulsion property.
- 36- Which is not a deep heat therapy**
 A) Short wave diathermy B) Ultrasound therapy
 C) Infrared therapy D) Microwave therapy
- 37- Steam point is equal to 100 °C, which is equal to**
 A) -373 K. B) -173 K.
 C) 373 K. D) 173 K
- 38- As an ultrasound pulse moves through tissue in a patient's body it will not undergo a change in:**
 A) Frequency. B) Amplitude (energy).
 C) Physical size. D) Intensity.
- 39- The opening of axon membrane voltage-gated potassium channels is responsible for which part of the action potential?**
 A) Depolarisation of the membrane B) Repolarisation of the membrane
 C) Contraction of the post synaptic muscle fibre
 D) Signalling vesicular release of neurotransmitters

40- Which of the following is not a job of the fatty sheath?

- A- Insulates the neuron from neighboring cells
- B- Speeds up transmission of the impulse
- C- Connects two neurons together

41- What is largely responsible for the negative resting membrane potential (around -70 mV) in a neuron?

- A) Axonal insulation by Schwann cells.
- B) Voltage-gated sodium channels opening.
- C) The action potential.
- D) Potassium leak currents.

42- Changing from a 2 MHz to a 5 MHz ultrasound transducer would generally produce:

- A) Faster imaging.
- B) Deeper penetration.
- C) Shorter wavelengths.

43- Which of the following is not a potential benefit of cryotherapy?

- A) causes vasoconstriction, leading to a decrease in local circulation
- B) reduces the acute inflammatory response
- C) decreases local blood viscosity
- D) decreases local metabolic rate and secondary hypoxic tissue damage

44- This is the job of the nervous system:

- A) To send messages to and from the brain and spinal cord to and from the body.
- B) To break down food to be used by the body.
- C) To remove wastes from the body.
- D) All the above answers.
- E) none of the above

45- Regarding the electroencephalogram (EEG)

- A) The normal EEG of an awake person is dominated by alpha waves
- B) The EEG can be used to monitor the health of the brain
- C) During deep sleep the EEG is always dominated by delta waves
- D) The presence of theta waves in the EEG of an awake child is indicative of cerebral pathology.

46- Photoelectric cells are used to convert

- A) light energy into sound energy
- B) electrical energy into light energy
- C) light energy into electrical energy
- D) light energy into heat energy

47- The "sodium-potassium pump" pumps

- A) sodium ions out and potassium ions in
- B) sodium ions in and potassium ions out
- C) sodium and potassium ions in
- D) sodium and potassium ions out

48- What are the main divisions of the nervous system?

- A) the sensory system and the motor system
- B) the peripheral nervous system and central nervous system
- C) the dendritic and the axonal systems
- D) the sympathetic and parasympathetic systems

49- The following are adverse effects of ultraviolet radiation Except

- A) Burning
- B) Premature aging of skin
- C) Production of vitamin D
- D) Carcinogenesis

50- The following is a deep heating modality

- A) Infrared radiation.
- B) Shortwave Diathermy
- C) Hotpacks
- D) Fango

The End of exam

Dr. Kamal Reyad