

QUIZ 01

1-The procedure of maintaining the amounts of salt and water in tissue fluids and blood is called:

- A-homeostasis
- B-excretion
- C-osmoregulation*
- D-thermoregulation

2-The procedure of maintaining the internal temperature of the body is classified as

- A- Thermoregulation*
- B-osmoregulation
- C-excretion
- D-glucoregulation

3-If the change in temperature occurs then this change may affect

- A-metabolism process
- B-functions of enzymes*
- C-process of diffusion
- D-process of osmosis

4-The process of maintaining a balance of internal conditions in the body is called

- A-homeostasis*
- B-peristalsis
- C-excretion
- D-respiration

5-The process in which metabolic wastes are to be eliminated from the body to maintain the balance of internal condition is called

- A-thermoregulation
- B-osmoregulation
- C-binary fission
- D-excretion*

6- Kidney filter excess water, salts, urea and

- A-acetic acid
- B-uric acid*
- C-minerals
- D-ammonia

7- For insulating the human body, in the dermis, there is a layer of

- A-protein
- B-lipids
- C-fat*
- D-D-starch

8-Human body temperature is maintained by

- A-skin*
- B-liver
- C-kidneys
- D-lungs

8-In human excess carbon dioxide is removed and kept in balance by

A-skin

B-liver

C-kidneys

D-lungs

10- Role in the maintenance of body temperature and removal of excess water and salts is performed by

A-lungs

B-kidney

C-skin

D-pancreas

11- Percentage of water in the chemical composition of urine is

A-1

B-0.95

C-0.5

D-0.6

12-Considering the human skin, the outer protective layer in which blood vessels are not present is

classified as

A-epithelial

B-epidermis

C-dermis

D-epidermal

13- The salts, water, urea of blood and glucose which is passed out of glomerular capillaries into

Bowman's capsule is classified as

A-proximal filtrate

B-papillary filtrate

C-glomerular filtrate

D-bowman's filtrate

14-The process in which metabolic wastes are to be eliminated from the body to maintain the balance of

internal condition is called

A-thermoregulation

B-osmoregulation

C-binary fission

D-excretion

15-The regulation of water and salt content in body fluids and blood is classified as

A-osmoregulation

B-osmosis

C-diffusion

D-mineral fission

16- In human kidneys, the single duct in which distal convoluted tubules opens is called

A-proximal duct

B-renal duct

C-papillary duct

D-collecting duct

17- In the human kidney, the renal tubule last portion is classified as

A-hilus convoluted tubule

B-renal convoluted tubule

C-proximal convoluted tubule

D-distal convoluted tubule

18-In body fluids, the excess water causes dilute urine also known as

A-hyper-hilus

B-hypotonic

C-hypertonic

D-hilus

19-The reabsorption of salts during urine formation is allowed by

A-descending limb of loop of Henle

B-ascending limb of loop of Henle

C-Bowman's capsule

D-glomerulus

20-The kidney dialysis and kidney transplant are the two treatments for

A-misbalance in glomerular filtrate

B-kidney failure

C-kidney stones

D-misbalance of osmoregulation.

QUIZ 02

1-What is the cause of rigor mortis?

A-Of potassium out of the cell after death

B-Breakdown of protein in the cell after death

C-Calcium influx into the sarcoplasm after death

D-High levels of sodium in the cell after death

2."Cross bridges" that link between the thick and thin filaments is formed by the

A-Entails of myosin filaments

B-Globular actin

C-Globular head of thick filaments

D-F actin

3. A sarcomere is part of a (n) _____.

A-perimysium

B-Endomysium

C-Myofibril

D-Myofilament

4. Which of the following muscles is voluntary?

A-Althea muscle of the stomach

B-Bathe muscle in the wall of the heart

C-Catha muscle that extends the arm at the elbow

D-Dither muscle in the wall of the urinary bladder

5. All of the following terms refer to the ability to receive and respond to a stimulus,

EXCEPT:

A. excitability

B. Irritability

C-Contractility

D- Responsiveness

6. Which of the following allows recoil of the muscle fiber when contraction ends?

A.tropomyosin

B-Myosin

C-Cacti

D-Troponin

7. The sequence of electrical changes that occurs along the sarcolemma when a muscle fiber is stimulated

is known as the _____.

A-Arresting potential

B-Bastion potential

C-Membrane hyperpolarization

D-Membrane repolarization

8. The absolute refractory period of an action potential is due to _____?

A. Insufficient neurotransmitter

B. Depletion of intracellular Na⁺

C. Inactivation of Na⁺ k⁺ ATPase

D. Voltage inactivation of the Na⁺ channel

9. Increase in threshold level on applying sub threshold, slowly rising stimulus is known as _____?

A. Adaptation

B. Accommodation

C. Refractoriness

D. Electro tonus

10. The number of muscle fibers in a motor unit are least in _____?

A. Laryngeal muscles

B. Pharyngeal muscles

C. Muscles of middle ear

D. Extra ocular muscles

11. Succinyle choline acts to block neuromuscular transmission by

A. Inhibiting cholinesterase

B. Inhibiting the CNS

C. Depolarizing the motor end plate of skeletal muscle

D. Blocking the release of acetyl choline at the end plate

12. Non true regarding Na/K pump is _____?

A. Pumps Na against a gradient

B. 5 Na ion exchanged for 2 k ion

C. Increase in intracellular Na

D. Hypocalcaemia inhibits the pump

13. A motor unit is made up of _____?

A. A flexor muscle and an extensor muscle

B. A single skeletal muscle and all the motor peurons that supply it

C. A single motor neuron and all the muscle fibers it innervates

D. All the motor neurons in which response are observed after maximal stimulation of a single sensory nerve

14. The neuromuscular transmitter released at neuromuscular junction is _____?

- A. Dopamine
- B. Epinephrine
- C. Nor epinephrine

D. Acetylcholine

15. in myasthenia gravis _____?

- A. there is lack of acetyl choline
- B. Lack of acetyl choline receptors*
- C. There is isometric contraction
- D. Muscles are rigid and tough

16. Tendon (or) ligament is attached to a bone through _____?

A. Tomes fibers

B. Interstitial fibers

C. Sharpey's fibers

D. Haversian fibers

17. The study of the electrical activity of the muscle is _____?

- A. EEG
- B. EMG*
- C. Venn diagram
- D. ECG

18. The following electrodes are used to detect the muscle activity without pain _____?

- A. Surface electrode*
- B. Round electrode
- C. Hook electrode
- D. Needle electrode

19. Contractile element in myofibril is _____?

- A. H band
- B. Sarcoplasm
- C. Sarcomere*
- D. A line

20. CA ions trigger the muscle contraction by binding to

- A. Actin
- B. Myosin
- C. Troponin*
- D. Tropomyosin

21. In the sliding filament model of muscle contraction, the Myofilament slide over each other, resulting in the overlapping of actin and _____.

- A. troponin
- B. actin
- C. myosin*
- D. thin filaments

22. Each skeletal muscle fiber is controlled by a neuron at a single _____.

A. sarcomere

B. synaptic knob

C. synaptic cleft

D. neuromuscular junction

QUIZ 03

1-What is the colour of plasma? Due to bilirubin & Xanthophyllin

A. Yellow

B. Reddish

C. Dark brown

D. None

2-What is the percentage of solid portion of plasma in blood?

A. 15%

B. 8-10 %

C. 90-92%

D. 45%

3-What is the basic function of blood in human body?

A. Transport

B. Defence

C. Homeostasis

D. All of these

4-What is the specific density of blood in male? At 15°C

A. 1.057

B. 1.053

C. 1.055

D. 1.507

5-The protein found in blood that is responsible for transporting oxygen is

A. Erythropoietin

B. Hemoglobin

C. Gamma globulin

D. None

6-Which is not a granulocyte?

A. Neutrophil

B. Basophil

C. Leucocyte

D. None

7-The proteins of the blood are formed by the

A. Kidney

B. Bone

C. Liver

D. None

8-What characteristic of platelets makes them well suited for their function?

A. *Sticky*

B. Small

C. Full cell complement

D. Large

9-The substance that stimulates the formation of white blood cells is

A. Erythropoietin

B. Thrombopoietin

C. *Colony stimulating factors*

D. None of above

10-What is the amount of blood in the average adult?

A. 5-10 liters

B. 10-15 liters

C. *5-6 liters*

D. 5-15 liters

11-The normal red cell lasts approximately _____ before it is destroyed.

A. 90 days

B. 210 days

C. *120 days*

D-60 days

12-Which leucocytes release heparin and histamine in blood?

A. Neutrophil

B. *Basophil*

C. Eosinophil

D. Monocytes

13-Hemoglobin is a _____

A. Reproductive pigment

B. *Respiratory pigment*

C. Carbohydrate

D. Fat

14-Special kind of protein containing iron is called as

A. Hormones

B. *Hemoglobin*

C. Fibrinogen

D. Globulins

15-Bile obtained after breakage of hemoglobin is of

A. Red color

B. Bright pink color

C. Blue color

D. *Greenish-yellow color*

16-.Cell within a circular biconcave shape is called as

A.Mitochondrion

B.Chromatin

C.Centrioles

D.*Hemoglobin*

17-Iron is actively absorbed in:

A. Stomach

B. Duodenum and proximal jejunum

C. Large intestine

D. Ileum

18-How is iron transported in the circulation from the intestine to the sites of metabolism in the body?

A. As simple Fe²⁺ in the serum

B. Bound to albumin

C. Bound to ferritin

D. Bound to transferrin

19-The function of white blood cells is to act as an agent in which system of the body?

A.Nervous system

B.Respiratory system

C.Defense system

D.digestive system

20-The eosinophils, neutrophils and basophils are considered as part of

A.granulocytes

B.Agranulocytes

C.megakaryocytes

D.thrombocytes

21-The blood cells that are colorless and do not contain any pigments are classified as

A.white blood cells

B.red blood cells

C.platelets

D.antigens

22-The kind of granulocytes which kills the parasites and breaks the inflammatory substances are

A.basophils

B.chlorophylls

C.eosinophils

D.neutrophils

23-The life span of white blood cells is

A.seconds to minutes

B.months to even years

C.minutes to days

D.none of above

24- Erythrocyte is another name for

A.red cell

B.white cell

C.platlets

D.none

25-Most of the volume of normal human blood is composed of:

A.red cells

B.hemoglobin

C.plasma

D.white cells

QUIZ 04

1. Determination of which substance is the purpose of blood typing?

Rh factor

T lymphocytes

B lymphocytes

All the above

2. Your blood is based on whether or not certain type of ___ on your red blood cell

Lipid

Protein

Carbohydrates

Enzyme

3. How many common antigens and antibodies are in Human Body?

10

20

30

40

4. The blood type is based on the presence of certain proteins called?

Fibronectin

Coronin

Antigen

Actin

5. A transplant of an organ between 2 individual which are not identical twin is called?

Isograft

Hypo graft

Xenograft

Allograft

6. Which blood type is most common?

AB

O

Rh positive

Rh negative

7. Red cross is constantly recruiting donor whose blood type is?

AB Rh positive

O Rh negative

AB Rh negative

O Rh Positive

8. Agglutination is caused by the combination of antigens with?

WBC's

Antibodies

Fatty acids

Carbohydrates

9. Which genotype produces no Agglutinin?

Genotype AB

Genotype OO

Genotype OA

Genotype Bb

10. Which type of Agglutinin is present in people having Blood group O?

Anti A

Anti B

Both a & b

None

11. O- Blood group is a Universal donor because it lacks antigens.

Antigen A

Antigen B

Rh factor

All of the above

12. Which Blood group is called Universal Recipient?

AB

O A A

-

13_ RES is a network of ____ fibers inhabited by phagocytic cells such as macrophages:

Nervous tissues

Epithelial tissues

Muscle tissues

Connective tissues

14_ The function of macrophages are:

Destroy foreign objects

Filter foreign objects

Helps in protein digestion

Both A and B

15. Kupffer Cells are present in?

Liver

Spleen

Lymph nodes

Lungs

16. Which cells are present in Lymph nodes?

Kupffer

Reticular

Alveolar

Microglia

17. How much time macrophages stay in circulation?

5 to 10 hours

5 to 10 minutes

10 to 20 hours

10 to 20 minutes

18. Which is not a function of RES

Phagocytosis

Storage and Circulation of Calcium

Immune function

Destruction of ageing RBC's

19_ Colour of spleen is:

Yellow-green

Purple-grey

Dark brown

Dark blue

20_ Nodule of spleen contains?

Red pulp and white pulp

Hormone producing cells

Glucose stored as glycogen

Cells producing platelets

21. The spleen's sinuses are filled with _____

Blood

Lymph

Salts

Water

22. _____ is the venous compartment of spleen and is important to break down RBC's.

White pulp

Red pulp

Antigens

Lymphocytes

23. Which of the following is the function of spleen:

Immune function

Destruction of old RBCs

Recycling of iron

All of the above

24. N thymus:

B cell maturation.

RBC storage.

T cell maturation.

Destruction of pathogenic antigen.

25. Which of the following is indication of?

Spleectomy

Trauma

Hodgkin's disease.

Autoimmune hemolytic disorders.

All of the Above.

QUIZ 05

1-Homeostasis

Refers to maintaining a stable internal environment.

Refers to maintaining a stable external environment.

Refers to the unwavering control of a physiological set point.

A and B.

A and C.

2- Hormones

Are chemical regulators that are conveyed from one organ to another via the blood stream?

May be secreted by endocrine cells.

May be secreted by nerve cells.

A and B.

A. B and C.

3- The term "metabolism"

Refers to all the chemical reactions that occur in the body.

Includes the synthesis of complex molecules from simpler molecules.

Includes the breakdown of complex molecules into simpler molecules.

Includes anabolism and catabolism.

Is described by all of the above.

4- The site where most of the ATP is generated in a cell is the

Nucleus.

Plasma membrane.

Endoplasmic reticulum.

Golgi apparatus.

Mitochondria

5-Which of the following is covalently attached to a lipid molecule in cell membrane?

Integral protein

trans membrane protein

Peripheral protein

Lipid-anchored protein

6-Integral proteins are also known as _____

Intrinsic proteins

Glycosylated proteins

Trans membrane proteins

Bilayer proteins

7-Transmembrane domain of a trans membrane protein is present as _____

Alpha-helix

Beta-sheet

Triple beta-sheet

None of the mentioned

8- Mitochondria is the organ for _____

Cellular respiration

Cellular digestion

Cellular death

Cellular motility

9-The protruding invaginated sheets inside mitochondria is known as _____

Cristae

Fimbriae

Hyphae

Cellular Digestion

10- Which technology can be used to monitor thousands of genes in a single experiment?

Centrifugation

Polymerase chain reaction

DNA microarrays

RNA microarrays

11-What percent of genes encode transcription factors?

5-10

15-20

40-50

50-60

12- Which of the following is not an aspect of translational-level control?

MRNA degradation

mRNA localization

mRNA translation

mRNA stability

13- Pre-synthesized mRNAs are stored in the _____ in an inactive state.

Nucleus

cytoplasm

nuclear membrane

plasma membrane

14- Which of the following is a temporary storage site for RNAs?

P-bodies

Ribosomes

V-bodies

Vacuole

15- Nissl's granules are present in _____

RBC

WBC

Nerve cells

Platelets

16- Nodes of Ranvier are found in _____

Myelinated nerve fibers

Non myelinated nerve fibers

RBC

WBC

17- Myelin sheath is derived from _____

Nerve cells

Schwann cells

Neuroglial cells

Microglia

18- Which of the following are the parts of neurons?

Sympathetic and parasympathetic

Dendrite axon and cell body

Cortex medulla and sheath

Brain spinal cord and vertebral column

19- Which of the following is true regarding interneuron?

It has long dendrites and a long axon

It has long dendrites and a short axon

It has short dendrites and a long or short axon

It has short dendrites and a long axon

20- Axoplasm is a _____

Cytoplasm of axon

Cytoplasm of dendrite

Blood plasma

External fluid to axon but inside myelin sheath

21- Which of the following exists in nerve and muscle cells?

Resting potential

membrane potential

potassium equilibrium potential

sodium equilibrium potential

22- Which of the following has the highest permeability in a resting nerve cell?

Na⁺

Cl⁻

I⁻

K⁺

23 A neuron fires when _____

action potential is achieved

apoptosis is induced

re-stimulation occurs

stimulation ceases

24- Salutatory conduction occurs due to _____

axon hillock

soma

myelin sheath

nodes of Ranvier

25- Sympathetic nervous system is associated with _____

Fight and flight

Fear and rage

Hormonal secretions

skeletal muscles

26- Somatic nervous system is made up of _____

Relay neurons

Associate neurons

Sensory neurons

Motor neurons

27- What type of signals is used by the nervous system to communicate?

Electrical and chemical

Electrical and mechanical

Mechanical and chemical

only chemical

28- Muscle cells are _____

irregularly shaped

cylindrically shaped

extremely fragile

extremely labile

29- Muscle cells are formed from the fusion of _____

myoblasts

fibroblasts

mast cells

neurons

30-The striated appearance of muscle fibers is due to _____

nucleus

sarcomeres

sarcoma

myoblasts

31- All skeletal muscles operate by _____

shortening

exciting

firing

contracting

32. _____ of the sarcomere remains unaffected during the muscle contraction.

H zone

A band

I band

H band

33. The "Sliding filament model of muscle contraction" was proposed in the year

1954

1964

1974

1984

34-. Which of the following proteins are not found in muscle fibers?

Keratin

actin

troponin

tropomyosin

35. Each tropomyosin is associated with _____ subunits of actin subunits.

2 3 7 9

36-Troponin is composed of _____ subunits.

1 2 3 4

37- Which of the following prevents sarcomeres from pulling apart during muscle stretching?

Titin

Vimentin

myosin

actin

38-In a typical motor unit, three action potentials are generated quickly after each Other. The resulting contraction resulting from such an activity is labelled:

Temporal summation

Spatial summation

Temporary summation

Temporal and spatial summation combined

39- When three motor units each fire an action potential, the resulting contraction will

Then be called:

Temporal summation

Spatial summation

Temporary summation

Temporal and spatial summation combined

40-When three motor units each fire three action potentials in quick succession, the resulting contraction will then be called:

Temporal summation

Spatial summation

Temporary summation

temporal and spatial summation combined

41- Question relates to the functional anatomy of the axons in and around the spinal cord. Which of the following statements are correct?

The axons in the ventral root run towards the ventral horn

The axons in the ventral horn run towards the ventral root

The axons in the dorsal root run towards the ventral horn

The axons in the dorsal horn run towards the ventral root

42-In a typical skeletal muscle, there are approximately 5000 muscle fibers and 500 motor units. How much, on average, is the size of a typical motor unit in this muscle?

5000

500

100

10

43-The channel in a membrane protein by which an ion or molecule can be transported in and out of the cell membrane is known as _____

Permeation pathway

Permeate channel

Permeation channel

Channel pathway

44-which of the following consist of intercalated disc smooth

cardiac

skeletal

All of these

45-Diffusion

Depends upon the random motion of molecules.

Results in net movement of molecules from regions of low concentration to regions of high

concentration.

Is important for moving molecules over large distances in the body.

A and B.

A and C

cardiomyopathy death of young : hypertrophic cardiomyopathy (HCM)

cardiac cycle : ECG

Terminal branch of nerve fiber : Axon terminal

S1: apex of heart (cardiac apex)

During systole : AV valve close & semilunar (aortic valve) open

heart layer responsible for contraction: Myocardium

oxygen-rich blood pump: left side

blood away from heart by : arteries

blood towards heart by : veins

diastole : ventricles relaxation

systole : ventricles contraction

beat over 100bpm : tachycardia

arterial flutter , treatment : Ventricular rate

circulatory system : system of pumping blood

muscular portion of heart : lower (left ventricle)

p wave : atrial complex

QRS complex : initial ventricular complex

T wave : final ventricular complex

QRST : ventricular complex

Q-T : none (bcz depolarization followed by repolarization)

Right sided heart failure : due to left sided heart failure (CAD of left sided)

hypotonic : muscle tone decreased

top heart : superior vena cava

oxygen deprived (oxygen poor) : right atrium

radial pulse : wrist pulse

Heart of heart : SA

beck muscle dystrophy : Sex linked

second degree AV block type : progressive lengthening untill QRS dropped

right & left seprate by : septum

nerve ending : axon terminal

blood flowing right direction : valves

cardiomyopathy death of young : hypertropic cardiomyopathy (HCM)

cardiac cycle : ECG

Terminal branch of nerve fiber : Axon terminal

S1: apex of heart (cardiac apex)

During systole : AV valve close & semilunar (aortic valve) open

heart layer respnsible for contraction: Myocardium

oxygen-rich blood pump: left side

blood away from heart by : arteries

blood towards heart hy : veins

diastole : ventricals relaxation

systole : ventricals contraction

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top heart : superior vena cava

oxygen deprived (oxygen poor) : right atrium

radial pulse : wrist pulse

Heart of heart : SA

beck muscle dystrophy : Sex linked

second degree AV block type : progressive lengthening until QRS dropped

right & left separate by : septum

nerve ending : axon terminal

blood flowing right direction : valves

Sugar coat .. glycocalyx

Lymphaticthymus

Thick ligament ... myosin

Polydipsia increase thirst

Drop of blood50l

spleen enlargementall

surgical importance..... tension lines

effector organall

No lymphaticBrain

vitamin....B&k

shape gray matter....H

site gas exchange alveoli

Release erythropoietin....kidney

volume csf....150ml

kidney function....Both

visceral smooth muscles

maternal lineage mitochondria

third layer.....stratum granulosum

cerebral edema..... traumatic injury

regarding muscle...mix of red and white fibers

colonies are.... contralateral

labor contractions oxytocin

contractile cells..... smooth cells

barrier against.....skin

involuntary..... digestion

less prone to fatigue smooth

erythropoietin.... erythropoiesis

Rest heart beats ...60 to 75(60 to 100

Heartbeat over 100 bpm... tachycardia

Atrial flutter..... ventricular rate

Heart divided into left and right side..... septum