INICET

Question Paper



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INI CET 2022 (Nov)

Question Paper

Physiology

(Based on Memory Recall)

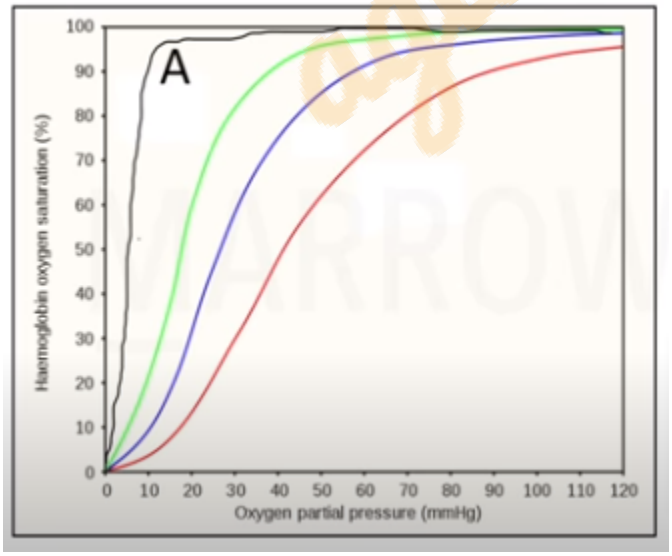
Q1. Ventricular action potential sequence order?

A. Opening a voltage gated sodium channels
B. Transient outward flow of potassium
C. Opening of voltage gated Calcium channel
D. Repolarizing K+ current

A) CDAB
B) ABCD
C) BADC
D) CADB

Correct answer : B

Q2. The below graph shows the oxygen dissociation curve, the curve marked as A indicates?



A) Methemoglobin

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B) Carboxyhemoglobin
C) Fetal hemoglobin
D) Myoglobin

Correct answer : D

Q3. How do you calculate cerebral perfusion pressure?

A) MAP - ICP
B) SBP - ICP
C) MAP/ICP
D) SBP + ICP

Correct answer : A

Q4. What does the zero pressure indicate in the pressure volume curve?

A) Residual volume
B) Functional residual capacity
C) Tidal volume
D) Inspiratory reserve volume

Correct answer : B

Q5. Fluid leaving the PCT in the absence of ADH is?

A) Isotonic
B) Hypotonic
C) Hypertonic
D) Depends on fluid intake

Correct answer : A

Q6. Match the following molecules with their carriers in plasma:
Transporter-
1. Prealbumin
2. Albumin
3. Haptoglobin
4. Hemopexin

Organic substance -
A. Thyroxine
B. Fatty acid
C. Hemoglobin

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D. Heme

A) 1-A, 2-B, 3-C, 4-D
B) 1-C, 2-D, 3-A, 4-B
C) 1-D, 2-A, 3-D, 4-C
D) None of the above

Correct answer : A

Q7. Which among the following organs have least arteriovenous pressure difference

A) Brain
B) Skin
C) Liver
D) Kidney

Correct answer : D

Q8. How does two, three BPG decrease the affinity of hemoglobin to oxygen?

A) Binds to Alpha chain
B) Binds to beta chain
C) Binds to gamma chain
D) Binds to both alpha and beta chain

Correct answer : B

Q9. Cardiac output can be calculated from?

A. ECHO
B. Ventilation - perfusion scan
C. Thermodilution
D. Fick's principle

A) A and D
B) B and C
C) A, C and D
D) D only

Correct answer : C

Q10. Match the following structures with their markers?

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A. Mitochondria (inner membrane)	1. Catalase
B. Endoplasmic Reticulum	2. Galactosyl transferase
C. Golgi body	3. Glucose 6 Phosphatase
D. Peroxisomes	4. ATP synthase

A) A-4, B-3, C-2, D-1
B) A-3, B-2, C-1, D-4
C) A-2, B-4, C-1, D-3
D) None of the above

Correct answer : A

Q11. The primary secondary messengers involved in the contraction of ciliary muscles during focusing on a near object is?

A) cAMP
B) cGMP
C) IP3
D) Na inflow through a channel

Correct answer : C

Q12. Macula densa is made of specialized cells located at?

A) Junction of thick descending Limb and DCT
B) Junction of thick descending limb and PCT
C) Junction of thick ascending Limb and DCT
D) Junction of DCT and collecting duct

Correct answer : C

Q13. 2nd phase of saliva secretion involves?

A) Active Na adsorption, Passive CL absorption, Active K secretion, active and passive secretion of HCO3
B) Passive Na absorption, Passive CL absorption, Active K secretion, active and passive secretion of HCO3
C) Active Na absorption, Active Cl absorption, Active K secretion, active and passive secretion of HCO3
D) Active Na adsorption, Passive CL absorption, Passive K secretion, active and passive secretion of HCO3

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Correct answer : A

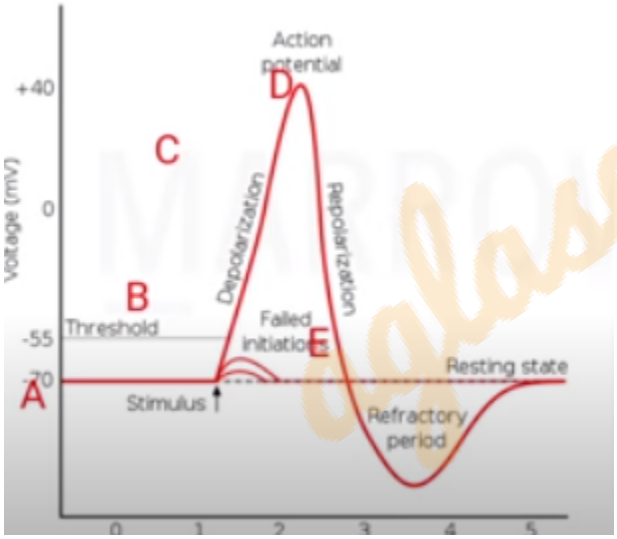
Q14. A woman has vomiting whenever she eats spicy food, arrange the sequence of events during vomiting?

A. Contraction of diaphragm and abdominal muscles
B. Inspiration against closed glottis
C. IES opens and UES opens
D. Reverse peristalsis in small intestine

A) CDAB
B) ABCD
C) BDAC
D) CADB

Correct answer : C

Q15. The image shows membrane potential during action potential, the region marked at D-E is due to?



A) Influx of Na
B) Efflux of Na
C) Influx of K+
D) Efflux of K+

Correct answer : D

Q16. Normal insensible water loss per day?

A) 550 ml

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B) 100 ml
C) 700 ml
D) 200 ml

Correct answer : C

Q17. Value of oncotic pressure of Tissue - oncotic pressure?

A) 12 mmhg
B) 15 mmhg
C) 25 mmhg
D) 5 mmhg

Correct answer : D

Q18. Part of nephron and anti - diuretics use :

A) DCT
B) PCT
C) Collecting duct
D) Ascending loop of Henle

Correct answer : A- Groonic anhydride, B- NCC; Thiazides, C- ENAC; Amiloride, D- NKCC; loop diuretics

Q19. Match the following:

a. Kupffer cell	1. Stomach
b. Parietal cells	2. Connective tissue
c. Histiocyte	3. Liver
d. Clara cells	4. Lungs

Select the correct option:

A) a-2, b-1,c-4, d-3
B) a-3, b-1, c-4, d-2
C) a-2, b-4, c-1, d-3
D) a-3, b-1,c-2, d-4

Correct answer : D

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Q20. Insensible water loss for house is :

A) 50 ml
B) 100 ml
C) 150 ml
D) 200 ml

Correct answer : A

Q21. Which are the nerves involved in oculocephalic reflex?

A) 3
B) 8
C) 6
D) 7

Correct answer : A,B,C

Q22. All of the following is the method to detect Mucociliary clearance except

A) Saccharine
B) Scintigraphy
C) Electron Microscope
D) Charcoal method

Correct answer : C

Q23. Graph with fev1/fvc, what is the diagnosis?

A) Bronchiectasis
B) Sarcoidosis
C) Pul fibrosis
D) ARDS

Correct answer : A

Q24. Neurohypophysis part of pituitary secretes::

A) ADH & Oxytocin
B) Prolactin
C) GH
D) ACTH

Correct answer : A

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Q25. Iron overload in body detected by :

A) Heart iron level by scan
B) Liver load
C) Ferritin
D) DMT1

Correct answer : A,B,C

Q26. Which of the following is true about NEUROGENIC shock:

A) Peripheral vasoconstriction
B) Anaerobic respiration produces CO2
C) Activation of lysosomal enzymes due to low pH
D) Warm shock

Correct answer : D

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