Mid Term Assignment (2020) Course Title: Basic Physiology (DT– 2nd) Instructor: Dr. Irfan Ali Khan

Multiple Choice Questions

Time: 48 hours

Class Code	_BS/DT section A	Name/Class Rollno:	_Muhammad Kamran	ID 15962
Note:				

• Attempt all questions from this section. Select the best answer from given choices.

- Use Blue / Black Ink only. Do not use red color.
- Tick or encircle only one option in each given question.

It's an open book Conceptual Assignment paper. Time to Use your brain now.

- 1. A short Gap in the myelin sheath around a nerve fiber is called
 - is called
 - a) Dendrite
 - b) Axon terminal
 - c) Node of Ranvier
 - d) None of these
- 2. The maximum amount of carbon dioxide in the human body is transported as:
 - a) Bicarbonate
 - b) Carbide
 - c) Amylase
 - d) None of the above
- 3. The lungs are protected by_____
 - a) Ribcage
 - b) Sternum
 - c) Backbone
 - d) All of the above
- 4. The three different cells found in the stomach a) Chief cells, renal cells, nephron
 - b) Renal cells, mucous cells, hepatic cells
 - c) Nephrons, hepatic cells, parietal cells
 - d) Chief cells, parietal cells, mucous cells
- 5. For action potential to occur,
 - a) The stimulus should reach or exceed threshold
 - b) Na+ influx must exceed K+ efflux
 - c) Both A & B
 - d) None of these
- During rising phase of action potential,
 a) Voltage gated Na+ channels open
 - b) Voltage gated K+ channels open
 - c) Voltage gated Na+ channels close
 - d) Voltage gated K+ channel close

- 7. The movement of an esophagus to help the food down the GI tract ______
 - a) Mastication
 - b) Emulsification
 - c) Peristalses

d) Ejection

- 8. Simple diffusion is _____.
 - a) Movement of molecules against the conc. gradient
 - b) Movement of molecules down the conc. gradient
 - c) Both A & B
 - d) None of these
- 9. 97% of Oxygen is carried in blood from lungs is
 - a) Bound to Sulphate ion
 - b) Bound to Hemoglobin
 - c) Dissolved in plasma
 - d) All of these
- 10. Intrinsic factor secreted in stomach helps in
 - a) Absorption of vitamin D
 - b) Absorption of vitamin K
 - c) Absorption of vitamin B12
 - d) Removal of vitamin B12

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Time: 72 Hours	Section 2			
Name:Muhammad Kamran Note:	Class/Roll.no15962			
• Attempt all questions from this section.				
Use only Blue / Black Ink other than diagrams				
Answer Briefly and to the point, avoid un-neco	essary details			

1. Draw and Label the Action Potential in a large myelinated nerve fiber. Which ion channels are

involved in its different stages?

Key points:

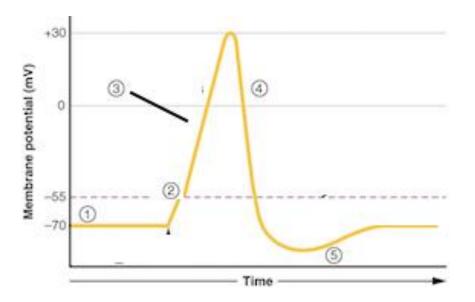
Draw

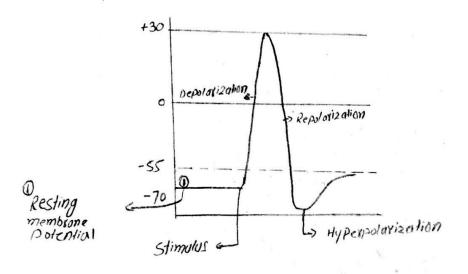
Label

Ion Channels

Depolarization

Repolarization





1 resting membrane potential (electric charge inside the cell at normal state of

The cell

2 stimulus (evoking special functional reaction)

3 depolarization (decreasing negativity inside the cell)

4 repolarization (increasing negativity inside the cell)

5 hyperpolaization (cell membrane potential becomes more negative)

2. What is the role of oxygen, carbon dioxide and hydrogen ions in control of respiration? Marks 10

ANSWER

Oxygen enters into the body during inspiration where it reacts with hemoglobin in the blood through the lungs and pass it to all of the body organs. All body parts works on oxygen .it is the main element of the body because It reacts with hydrogen ions to make water (remove ammonia or urea from the body which are toxic substances). it also makes carbon dioxide by reacting with carbon. Carbon dioxide exhale from the body as waste material which complete the respiration process