**Mid Term Assignment (2020)**

**Course Title: Basic Physiology (DT– 2nd) Instructor: Dr. Irfan Ali Khan**

**Multiple Choice Questions Time: 48 hours**

**Name: Khalid Shah Class Roll no: 15828**

**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**
2. Dendrite
3. Axon terminal
4. Node of Ranvier
5. None of these
6. **The maximum amount of carbon dioxide in the human body is transported as**:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
7. Bicarbonate
8. Carbide
9. Amylase
10. None of the above
11. **The lungs are protected by\_\_\_\_\_\_\_\_\_\_\_**
12. Ribcage
13. Sternum
14. Backbone
15. All of the above
16. **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

1. **For action potential to occur,**
2. The stimulus should reach or exceed threshold
3. Na+ influx must exceed K+ efflux
4. Both A & B
5. None of these
6. **During rising phase of action potential,**
7. Voltage gated Na+ channels open
8. Voltage gated K+ channels open
9. Voltage gated Na+ channels close
10. Voltage gated K+ channel close

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1. **The movement of an esophagus to help the food down the GI tract \_\_\_\_\_\_\_\_\_\_**

a) Mastication

b) Emulsification

c) Peristalses

d) Ejection

1. **Simple diffusion is \_\_\_\_\_\_\_\_.**
2. Movement of molecules against the conc. gradient
3. Movement of molecules down the conc. gradient
4. Both A & B
5. None of these
6. **97% of Oxygen is carried in blood from lungs is \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**
7. Bound to Sulphate ion
8. Bound to Hemoglobin
9. Dissolved in plasma
10. All of these
11. **Intrinsic factor secreted in stomach helps in**
12. Absorption of vitamin D
13. Absorption of vitamin K
14. Absorption of vitamin B12
15. Removal of vitamin B12

**Midterm Assignment(2020)**

**Course Title: Basic Physiology (DT- 2nd) Instructor: Dr. Irfan Ali Khan**

**Time: 72 Hours Section 2**

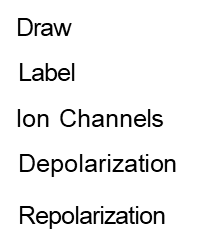
**Name: ……………………..…………………… Class/Roll.no …………………………………….**

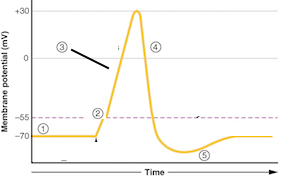
**Note:**

* **Attempt all questions from this section.**
* **Use only Blue / Black Ink other than diagrams**
* **Answer Briefly and to the point, avoid un-necessary 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:**





1. Hypo polarization
2. Depolarization
3. Overshoot
4. Repolarization
5. Hyperpolarization

The course of the action potential can be divided into five parts: the rising phase, the peak phase, the falling phase, the undershoot phase, and the refractory period. During the rising phase the membrane potential depolarizes (becomes more positive). The point at which depolarization stops is called the peak phase.

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

ROLE OF OXYGEN: Oxygen is important to every cell in your body. Oxygen through a process called oxidation, chemically changes food and liquid into energy . it’s this oxygen fire that contract our muscles repairs our cells feeds our brains and even calms our nerve . not only that but breathing is our body, chief cleasing tool.

ROLE OF CARBON DIOXIDE: carbon dioxide is an atmospheric constituent that play several vital roles in the environment it is a greenhouse gas that traps infrared radiation heat in the atmosphere. it plays a crucial role in the weathering of rocks . it is the carbon source for plants.

HYDROGEN IONS\_: whenever hydrogen ions are in liquid that contains water, hydrogen ions quickly combine with H2O to from hydronium ions ,or H30. hydrogen ion also contribute to the formation of hydrochloric acid in the stomach to digest food , and to form a molecules called pepsin, which helps break down food proteins.

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