

Date: 10-06-2019

C 2743

First Year MBBS Examination

I MBBS Physiology Paper 1

Time: 3 hours

Max Marks: 50

Instructions: 1. Answer to the points. 2. Figure to the right indicates marks. 3. Use separate answer books for each section. 4. Draw diagrams wherever necessary. 5. Write legibly.

Section 1

1. Explain in detail (Any Two) (10)
 - a. What do you mean by term "Active Transport"? Explain in detail giving examples each of primary and secondary active transport.
 - b. Explain in detail about Erythropoeisis.
 - c. Explain the various phases of Nerve Action Potential? Discuss the ionic basis of each phase.
2. Write briefly on: (Any Two) (6)
 - a. Functions of Gastric secretions.
 - b. Enumerate the components of Pancreatic

secretion. Explain its regulation.

c. Anticoagulants.

3. Write briefly on: (Any One) (3)

a. Measurement of plasma volume

b. Draw well labelled diagram of eosinophil.
What are its functions?

4. Write briefly on: (Any Two) (6)

a. Write detail about Ca^{2+} Gap Junctions?

b. Define Fatigue. Write in the basic mechanism of infatiguability of Heart?

c. Differentiate between Meissner's and Myenteric Plexus.

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Section 2

1. Explain in detail: (Any Two) (10)
 - a. What are the various waves of ECG ?
Discuss the features of each wave
 - b. Define Stroke volume and explain the various factors which regulate it.
 - c. Write in detail about the non respiratory functions of Lung.
2. Write briefly on: (Any Two) (6)
 - a. Chemical control of respiration.
 - b. Baroreflex
 - c. Role of Hypothalamus in temperature regulation.
3. Write briefly on - (Any One) (3)
 - a. Physiological and Pathological variations of Heart rate.
 - b. Caisson disease
4. Short explanatory objective questions: (Any Six) (6)
 - a. What do you mean by Apoptosis?
 - b. What is the effect of parasympathetic system stimulation on gastric secretion?
 - c. What is the effect of temperature on Basal

Metabolic Rate?

- d. Define Fick's Law of diffusion.
- e. Mention the type of nerve fibers carrying "cold sensation" €^{TM}
- f. Which cells secrete the enzyme Enterokinase?
- g. Define Vital Capacity
- h. Which plasma proteins mainly contribute to Colloid Oncotic Pressure €^{TM} ?
- i. Why skeletal muscles have striated appearance?
- j. What is All or None Phenomenon?

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