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PROGRAMME OF THE B.H.M.S -EXAMINATION- MARCH-2025

The First Year (CBDC)

Academic Year 2023-25

Subject Code: HomUG-PB-1

Duration: 3:00 Hrs.

Subject Name: Human Physiology & Biochemistry

Total Marks: 100

Instructions:

1. Attempt all questions.
2. Make suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.

Q.1 MCQ/Fill in the blanks (Attempt All Questions)

10

- 1) The inner membrane of _____ is folded in the form of shelf like inward projections.
 a) Lysosomes
 b) Golgi apparatus
 c) Endoplasmic reticulum
 d) Mitochondria
- 2) _____ type of channels are the type of channels which open in the presence of hormonal substances.
 a) Voltage gated channels
 b) Ligand gated channels
 c) Mechanically gated channels
 d) a) & b)
- 3) Substances have the property to pass from higher concentration to lower concentration.
 a) Diffusion
 b) Hydrotrophy
 c) Surface tension
 d) Dialysis
- 4) _____ is the manifestation of attracting forces in between atoms or molecules.
 a) Adsorption
 b) Surface tension
 c) Donnan equilibrium
 d) Colloid
- 5) Which Anaemia is Known as Addison's anaemia?
 a) Pernicious anaemia
 b) Aplastic Anaemia
 c) Thalasemia
 d) Iron deficiency anaemia
- 6) The second heart sound is produced at the end of _____.
 a) Rapid filling period
 b) Atrial systole
 c) At the end of protodiastolic period
 d) During isometric contraction period
- 7) Maximum amount of CO₂ is carried as:
 a) In simple solution
 b) As carbamino compound
 c) Bicarbonate
 d) Carbonic acid
- 8) Heat loss center is situated in _____ nucleus of hypothalamus?
 a) Paraventricular
 b) Preoptic
 c) Posterior hypothalamic
 d) Supraoptic

- 9) Glucose reabsorption takes place in the :
a) Bowman's Capsule
b) First half of the proximal tubule
c) Distal tubule
d) Loop of Henle
- 10) _____ is the property of skeletal muscle at which the muscle does not show any response to a stimulus.
a) Refractory period
b) Summation
c) All or none law
d) Excitability

40

Q.2 Short Questions. (Attempt All Questions)

- 1) Difference between DNA & RNA
- 2) Osmosis
- 3) Sarcomere
- 4) ESR
- 5) Body temperature regulation
- 6) Heart sound
- 7) Hypoxia
- 8) JGA

Q.3 Long Questions. (Attempt All Questions)

50

- 1) Describe plasma protein in detail- definition, types, synthesis, properties & functions.
- 2) Write what is Landsteiner's law & discuss about ABO blood group and its incompatibility reactions.
- 3) Define cardiac output. Explain in detail about factors affecting on it.
- 4) Describe the role of renal tubules in formation of urine.
- 5) Describe nervous regulations of respiration in detail