

CBME**DR. YSR UNIVERSITY OF HEALTH SCIENCES:AP:VIJAYAWADA-520 008****MBBS DEGREE EXAMINATION – MAY, 2022****FIRST M.B.B.S. EXAMINATION****PHYSIOLOGY – PAPER-I (SET-B)****(Multiple Choice Questions)****Time: 20 Minutes****Max Marks: 20****Note: Answer all questions**

SECTION – I (MCQs- 20 MARKS)**1x20=20**

- 1) Equilibrium potential of an ion is calculated by
 - a. Goldman equation
 - b. Katz equation
 - c. Gibbs-Donnan equilibrium
 - d. Nernst equation

 - 2) Which of the following increases the diffusion of a substance across the membrane
 - a. Increase the size of the particle
 - b. Thickness of the membrane
 - c. Increases lipid solubility of the substance
 - d. Decreased lipid solubility of the substance

 - 3) D₂O (Deuterium oxide) is used to measure volume of
 - a. Total body water
 - b. Extracellular fluid
-

- c. Blood
 - d. Intracellular fluid
- 4) Resting membrane potential of neuron is equal to equilibrium potential of
- a. Bicarbonate
 - b. Chloride
 - c. Sodium
 - d. Potassium
- 5) The cardiac output can be determined by all EXCEPT
- a. Thermodilution technique
 - b. Fick's principle
 - c. V/O ratio
 - d. Echocardiography
- 6) Which of the following is not a cell adhesion molecule
- a. Integrin
 - b. Spectrin
 - c. Cadherin
 - d. Selectin
- 7) Sympathetic stimulation causes all of the following EXCEPT
- a. Increase in venous capacitance
 - b. Increase in heart rate
 - c. Increase in blood pressure resistance

8) At rest, contribution of atrial systole of ventricular filling is about:

- a. 20%
- b. 80%
- c. 50%
- d. 65%

9) Functional residual capacity is:

- a. Tidal volume + volume expired by forced expiration
- b. Volume remaining after forced expiration
- c. Tidal volume + volume inspired forcefully
- d. Volume remaining after normal expiration

10) Hematocrit is 25% less in capillary blood compared to whole body hematocrit, due to

- a. Less blood in capillaries
- b. Less proteins in capillary blood
- c. More water in capillary blood
- d. Less cells in capillary blood due to plasma skimming

11) All are true about dead space EXCEPT

- a. This is the space occupying conducting Airways that does not take part in gas exchange
- b. Normally about 30% of minute ventilation does not participate in gas exchange
- c. Dead space is also called as anatomical Dead Space normal
- d. Dead Space volume is 350 mL

- 12) The total cross-sectional area is more in which part of circulation
- Arteries and arterioles
 - Capillaries
 - Vena cava and bigger veins
 - Aorta and bigger arteries
- 13) In an adult, at sea level the normal p_{50} occur at what level of PO_2
- 15 mmHg
 - 95 mmHg
 - 27 mmHg
 - 60 mmHg
- 14) Which of the following is NOT true about pulmonary circulation
- It is a low pressure circulation having MAP of about 15 mmHg
 - It is a low resistance circulation having less vascular resistance
 - Pulmonary arterioles are thin walled having less smooth muscle in intima media
 - The resting sympathetic tone is high
- 15) Which of the following does not stimulate gastrin secretion
- Increased acid in the stomach
 - Products of protein digestion
 - Gastric distention
 - Vaginal stimulation
- 16) The partial pressure of oxygen in venous blood is:
- 40 mmHg

- b. 46 mmHg
- c. 32 mmHg
- d. 95 mmHg

17) Which of the following intestinal movements is for mixing and grinding of intestinal content:

- a. Villous contraction
- b. Migrating motor complex
- c. Peristalsis
- d. Segmentation

18) Pancreatic juice rich in water and electrolytes poor in enzymes is secreted in response to

- a. Pancreozymin
- b. Proteins
- c. Cholecystokinin
- d. Secretin

19) Vitamin B12 is absorbed in:

- a. Stomach
- b. Duodenum
- c. Jejunum
- d. Ileum

20) All of the following are true about achalasia cardia EXCEPT

- a. Failure of LES to constrict is the major problem in this disorder
- b. Rat tail in barium X ray is a typical finding

- c. Deficiency of myenteric plexus at LES is the cause
- d. Neurotransmitter VIP and NO are deficient

firstranker.com
www.FirstRanker.com