

**M.B.B.S. DEGREE EXAMINATION
FIRST YEAR
PAPER II – PHYSIOLOGY**

MULTIPLE CHOICE QUESTIONS

Q.P. Code: 526054

Time: 30 Minutes

Maximum : 20 Marks

Answer All Questions

Write one correct answer in the box provided in the Answer Script. No overwriting should be done.

III. Multiple Choice Questions:

(20 x 1 = 20)

1. The property of specificity of nerve fibers for transmitting only one modality of sensation is called
 - A) Law of Projection.
 - B) Spatial Summation.
 - C) Labeled Line Principle.
 - D) Weber Fechner Law.

2. The hypothalamic nucleus that controls food intake called as feeding center is
 - A) Lateral Hypothalamus.
 - B) Posterior Hypothalamus.
 - C) Anterior Hypothalamus.
 - D) Ventro Medial Nucleus.

3. The intrafusal fibers of muscle spindle is supplied by
 - A) Alpha Motor Neuron.
 - B) Gamma Motor Neuron.
 - C) Dorsal Root Neuron.
 - D) Renshaw Cell.

4. The neurotransmitter that is excitatory is
 - A) Glycine.
 - B) Glutamate.
 - C) Serotonin.
 - D) Dopamine.

5. In which stage of sleep, sleep spindles and K^+ complexes are seen in EEG
 - A) REM Sleep.
 - B) Stage – 2 NREM Sleep.
 - C) Stage – 4 NREM Sleep.
 - D) Stage – 3 NREM Sleep.

6. The increase in heart rate following an increase in Atrial pressure is called as
- A) Cushing's Reflex.
 - B) Volume Reflex.
 - C) Bain Bridge Reflex.
 - D) Baroreceptor Reflex.
7. The substance that can cause vasodilatation of blood vessel is
- A) Norepinephrine.
 - B) Angiotensin II.
 - C) Vasopressin.
 - D) Bradykinin.
8. Tall and tented 'T' waves in Electro Cardiogram is seen in
- A) Hypocalcemia.
 - B) Hypokalemia.
 - C) Hyponatremia.
 - D) Hyperkalemia.
9. The condition that causes low cardiac output is
- A) Anemia.
 - B) Beriberi.
 - C) Arteriovenous Fistula.
 - D) Valvular Heart Disease.
10. The tastant which has got highest threshold is
- A) Hydrochloric Acid.
 - B) Strychnine Hydrochloride.
 - C) Sucrose.
 - D) Glucose.
11. Counter irritants allays pain by
- A) Spatial Summation.
 - B) Adaptation of Receptors.
 - C) Inhibition of pain pathway at dorsal horn gate.
 - D) Inhibiting the release of pain mediators.
12. Pure word blindness occurs in lesion of
- A) Superior Temporal Gyrus.
 - B) Inferior Temporal Gyrus.
 - C) Middle Temporal Gyrus.
 - D) Angular Gyrus.
13. The following is TRUE regarding the surfactant lining the alveoli
- A) Is produced by alveolar type I cells and secreted into the alveolus.
 - B) Helps to prevent alveolar collapse.
 - C) Is increased in the lungs of heavy smokers.
 - D) Is a glycolipid complex.

14. Spontaneous respiration ceases after
- A) Transection of the brainstem above the pons.
 - B) Transection of the brainstem at the caudal end of the medulla.
 - C) Bilateral Vagotomy.
 - D) Bilateral vagotomy combined with transection of the brainstem at the superior border of the pons.
15. The pacemaker cells initiating rhythmic respiration located in medulla responsible for normal respiration is
- A) Apneustic Center.
 - B) Pneumotaxic Center.
 - C) Pre Botzinger Complex.
 - D) Nucleus Tractus Solitarius.
16. Shifting of O₂ – Hemoglobin curve to right means
- A) Decreased O₂ delivery to tissues.
 - B) Increased O₂ delivery to tissues.
 - C) Loading of CO₂ to blood.
 - D) Loading of O₂ to blood.
17. Which of the following sensation is carried by the lateral spinothalamic tract?
- A) Crude touch and fine touch.
 - B) Tactile localization and discrimination.
 - C) Vibration and proprioception.
 - D) Pain and temperature.
18. The diffusion of ions that causes inhibitory post synaptic potential is
- A) Increased conductance of sodium ions.
 - B) Increased conductance of potassium ions.
 - C) Decreased conductance of potassium ions.
 - D) Decreased conductance of chloride ions.
19. Renshaw cell inhibition is an example of
- A) Positive feedback inhibition.
 - B) Negative feedback inhibition.
 - C) Feedforward inhibition.
 - D) Postsynaptic inhibition.
20. The auditory pathway passes via all EXCEPT
- A) Cochlear nuclei.
 - B) Superior olivary nucleus.
 - C) Trapezoid body.
 - D) Superior colliculus.
