

[MBBS 0825]

AUGUST 2025

Sub. Code: 7054

**M.B.B.S. DEGREE EXAMINATION**

(For the candidates admitted from the Academic Year 2024-2025)

**FIRST PROFESSIONAL – (CBME)****PAPER II – PHYSIOLOGY*****Q.P. Code: 527054*****Time: 20 Minutes****Maximum : 20 Marks****Answer All Questions****Shade the correct answer with Black or Blue ink ball point pen****SET - A****IV. Multiple Choice Questions:****(20 x 1 = 20)**

1. A 22 year old male was brought to the Ophthalmology department for medical examination for the post of train driver. He was found to have blindness for red colour. Identify the condition  
A) Protanopia      B) Deutanopia      C) Tritanopia      D) Monochromatism
2. During inspiration  
A) Intra-thoracic pressure increases      B) Intra-thoracic volume increases  
C) Intra-alveolar pressure increases      D) Intra-alveolar volume decreases
3. Volume of air remaining in the lungs after normal expiration is  
A) Residual volume      B) Functional residual capacity  
C) Vital capacity      D) Total lung capacity
4. A 45 year old male had consumed cyanide and was brought to the tertiary care centre. He was treated with methylene blue because  
A) Methylene blue destroys cyanide  
B) Methylene blue forms methemoglobin  
C) Methylene blue improves tissue oxygenation  
D) Methylene blue causes reduction reaction in hemoglobin
5. Presence of Surfactant in the fluid lining the alveoli  
A) Increases surface tension      B) Increases work of breathing  
C) Prevents pulmonary edema      D) Causes collapse of alveoli
6. Visual acuity is greatest in  
A) Fovea centralis      B) Optic disc      C) Ora serrata      D) Optic nerve
7. Increase in the force of cardiac contraction without change in muscle length occurs by  
A) Catecholamines      B) Increase in end-diastolic volume  
C) Infusion of isotonic saline      D) Venoconstriction

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8. T system in the cardiac muscle is located in

- A) A-I junction      B) Z-line      C) M-line      D) H-zone

9. A 30 year old male was advised sleep study by his physician. Which of the following finding will be present in stage II non-rapid eye movement sleep?  
A) Alpha wave      B) Theta rhythm      C) K-complexes      D) Delta wave
10. Fungiform papilla are most numerous near  
A) Tip of tongue      B) Side of tongue      C) Posterior part of tongue      D) Pharynx
11. Optic nerve leaving the eye is visible in Ophthalmoscope as  
A) Macula lutea      B) Fovea centralis      C) Optic disk      D) Ora serrata
12. First order neurons of dorsal column pathway synapse in  
A) Spinal cord      B) Medulla      C) Pons      D) Sensory cortex
13. Emotional response to olfactory stimuli is due to olfactory information reaching  
A) Orbitofrontal cortex      B) Amygdala  
C) Entorhinal cortex      D) Olfactory bulb
14. Tracking movements of the eyes as they follow moving objects are called  
A) Saccadic movements      B) Smooth pursuit movements  
C) Vestibular movements      D) Convergence movements
15. A 21 year old male fell from bike and suffered spinal injury. Imaging study revealed transection of left half of spinal cord in lumbar region. Which of the following sensation would be lost on the right lower limb?  
A) Touch      B) Pain      C) Vibration      D) Position sense
16. A 40 year old male complaining of Palpitation. If the R-R interval of this patient is 0.60 seconds in ECG, then his heart rate would be  
A) 60/min      B) 75/min      C) 100/min      D) 120/min
17. Which of the following is not a cause of neurogenic shock?  
A) Septic shock      B) Deep general anesthesia  
C) High spinal anesthesia      D) Brain damage
18. Direct effect of  $\gamma$ -motor discharge is  
A) Contraction of extrafusal fibres  
B) Contraction of ends of intrafusal fibres  
C) Contraction of middle portion of intrafusal fibres  
D) Relaxation of extrafusal fibres
19. A 55 year old male was diagnosed as having congestive cardiac failure with a left ventricular ejection fraction of 30%. He was advised digoxin for increasing cardiac contractility because of its ability to increase intracellular stores of  
A) Sodium      B) Potassium      C) Calcium      D) Magnesium
20. Parallel fibres in cerebellar cortex is formed by axons of \_\_\_\_\_ cells  
A) Purkinje cells      B) Granule cells      C) Basket cells      D) Stellate cells

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1. A 45 year old male had consumed cyanide and was brought to the tertiary care centre. He was treated with methylene blue because
  - A) Methylene blue destroys cyanide
  - B) Methylene blue forms methemoglobin
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2. Presence of Surfactant in the fluid lining the alveoli
  - A) Increases surface tension
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A) A-I junction      B) Z-line      C) M-line      D) H-zone
2. A 30 year old male was advised sleep study by his physician. Which of the following finding will be present in stage II non-rapid eye movement sleep?  
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**D****r. . MEDICAL****[MBBS 0825]****AUGUST 2025****Sub. Code: 7054****M.B.B.S. DEGREE EXAMINATION****(For the candidates admitted from the Academic Year 2024-2025)****FIRST PROFESSIONAL – (CBME)****PAPER II – PHYSIOLOGY*****Q.P. Code: 527054*****Time: 20 Minutes****Maximum : 20 Marks****Answer All Questions****Shade the correct answer with Black or Blue ink ball point pen****SET - D****IV. Multiple Choice Questions:****(20 x 1 = 20)**

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