

Sl.No. M21441

Course Code : 161021T04

VINAYAKA MISSION'S RESEARCH FOUNDATION, SALEM

MBBS DEGREE EXAMINATION – August 2019

First Year

HUMAN PHYSIOLOGY INCLUDING BIOPHYSICS - PAPER II

SECTION A

Time: Fifteen Minutes

Maximum: 15 marks

Register Number :

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Signature of the candidate

Signature of the Invigilator

Instructions to the candidates

- 1. Write your Register Number and sign at the place specified on the first page of this Question Booklet.**
- 2. Do not open this question booklet until Invigilator announces the commencement of the examination.**
- 3. Answer ALL the Fifteen questions. They carry equal marks. No negative marking for wrong answers.**
- 4. Answers should be marked legibly in the SHEET provided in capital letters.**
- 5. THE QUESTION BOOKLET SHOULD NOT BE TAKEN OUT OF THE EXAMINATION HALL.**
- 6. Questions should not be copied and taken out of the Examination Hall. Any one found violating this rule shall not be permitted to write the examination and shall be sent out of the Hall.**
- 7. At the end of 15 minutes, when the Invigilator announces 'STOP WRITING' you must stop writing immediately. If the candidate tries to attempt to answer the questions after the prescribed time, their answer script becomes invalid.**
- 8. Hand over the questions booklet containing answer sheet to the invigilator when you finish answering or immediately after 15 minutes.**

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HUMAN PHYSIOLOGY INCLUDING BIO PHYSICS - PAPER II

SECTION-A (15X1-15 MARKS)

(Multiple choice questions)

Time: Fifteen Minutes

Maximum: 15 marks

Select the most appropriate answer and answer in the answer sheet attached:

1. First heart sound is produced due to closure of
 - A. Semilunar valves
 - B. Mitral valve
 - C. Tricuspid valve
 - D. Both mitral and tricuspid valve

2. Following are the properties of cardiac muscle except
 - A. Excitability
 - B. Conductivity
 - C. Autorhythmicity
 - D. Staircase phenomenon

3. P wave in ECG is produced due to
 - A. Atrial depolarization
 - B. Ventricular depolarization
 - C. Atrial repolarization
 - D. Ventricular repolarization

4. Autoregulation of blood pressure in the organs operated between
 - A. 10-40 mm hg
 - B. 40-60 mm hg
 - C. 70-170 mm hg
 - D. 100-200 mm hg

5. Immunoglobulin secreted by mucosa of lungs is
 - A. IgA
 - B. IgD
 - C. IgE
 - D. IgM

(p.t.o.)

6. The diffusion of gases across the respiratory membrane is
 - A. Directly propotional to the thickness of the membrane
 - B. Inversely propotional to the surface area of the membrane
 - C. Inversely propotional to the diffusion coefficient of the gas
 - D. Directly propotional to the pressure gradient across the respiratory membrane

7. Pneumotaxic center is present in
 - A. Medulla
 - B. Pons
 - C. Hypothalamus
 - D. Thalamus

8. Hypoxia causing damage of the cytochrome oxidase enzyme system is
 - A. Hypoxic hypoxia
 - B. Anemic hypoxia
 - C. Stagnant hypoxia
 - D. Histotoxic hypoxia

9. Premotor cortex corresponds to Broadmann area no
 - A. 3,1,2
 - B. 4,6
 - C. 8
 - D. 5,7

10. Features of the UMN lesion are the following except
 - A. Rigidity in the muscle
 - B. Loss of superficial reflexes
 - C. Exaggerated deep reflexes
 - D. Negative Babinski's sign

11. Fast pain is carried by
 - A. $A\alpha$ fibers
 - B. $A\delta$ fibers
 - C. B fibers
 - D. C fibers

12. Parkinsonism is treated by administration of

- A. L-dopa
- B. Dopamine
- C. Prostaglandins
- D. Histamine

13. Taste sensation from the anterior 2/3rd of the tongue is carried by

- A. Facial nerve
- B. Vagus nerve
- C. Glossopharyngeal nerve
- D. Hypoglossal nerve

14. The centre for light reflex is located in

- A. Edinger -Westphal nucleus
- B. Pretectal nucleus
- C. Ciliary ganglion
- D. Lateral geniculate body

15. Refractive power of the lens is measured in

- A. Decibels
- B. Diopters
- C. Centimeters
- D. Millimeters

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First Year

HUMAN PHYSIOLOGY INCLUDING BIO PHYSICS – PAPER II

Time : Three hours

Maximum : 80 marks

Answer ALL Questions

Answer Section A in the Answer Sheet attached to it 15 marks – 15 minutes to be handed over to the invigilator immediately after 15 minutes

Answer Section B in the same answer book

Time : 2 hours 45 minutes

SECTION – B

Maximum : 65 marks

I. Write essays on:

(2 x 15=30)

1. Define blood pressure with normal values in describe the long term regulation.
Add a note on Hypertension.
2. Describe the nuclei, connections and functions of hypothalamus and explain regulation of food intake.

II. Write short notes on:

(5 x 5=25)

3. Chemical regulation of respiration
4. Oxygen – dissociation curve
5. Visual pathway
6. Functions of Middle Ear
7. Errors of refraction.

III. Write briefly on:

(5x2=10)

8. Functions of surfactant
9. Reynold's number
10. Phantom limb
11. Referred pain
12. Anosmia.
