Sl.No. M21440 **Course Code : 161021T03**

VINAYAKA MISSION'S RESEARCH FOUNDATION, SALEM

MBBS DEGREE EXAMINATION – August 2019

First Year

HUMAN PHYSIOLOGY INCLUDING BIOPHYSICS - PAPER I

SECTION A

Time: Fifteen Minutes **Maximum: 15 marks**

Register Number : | | | | | | | | | | |

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.**

Sl.No. M21440 **Course Code : 161021T03**

HUMAN PHYSIOLOGY INCLUDING BIO PHYSICS - PAPER I

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. The normal renal blood flow is

   A. 125 ml/min
   B. 400 ml/min
   C. 650 ml/min
   D. 1200 ml/min

2. The facultative reabsorption of water takes place in

   A. PCT
   B. DCT
   C. Loop of Henle
   D. Bowman's capsule

3. The process of Autoregulation is explained on the basis of

   A. Myogenic theory
   B. Travelling wave theory
   C. Kinetic theory
   D. None of the above

4. Normal range serum osmolality (in mOsm/L) is

   A. 250-270
   B. 275-290
   C. 300-325
   D. 200-250

5 .The most potent stimulator of growth hormone secretion is

   A. Excitement
   B. Exercise
   C. Trauma
   D. Hypogylcemia

(p.t.o.)

6. Cretinism occurs due to
   A. Hypothyroidism in children
   B. Hypothyroidism in adults
   C. Hyperthyroidism in children
   D. Hyperthyroidism in adults

7. The actions of Parathormone

   A. Increased serum calcium level
   B. decreases phosphate excretion in urine
   C. does not act on bones, kidneys, and intestine
   D. Increases serum sodium level

8. Insulin dependent glucose uptake occurs in

   A. Muscle
   B. Epithelial cells of small intestine
   C. Brain
   D. Kidneys

9. The most important buffer in ECF is:

   A. Hemoglobin
   B. Protein
   C. Phosphate
   D. Bicarbonate

10. Lysosomes are formed by
   A. Mitochondria
   B. Rough endoplasmic reticulum
   C. smooth endoplasmic reticulum
   D. Golgi apparatus

11. Stimulation of Myenteric plexus causes all of the following EXCEPT
   A. Increased tone of Gut wall
   B. Increasedcontraction of Pyloric sphincter
   C. Increased force of contraction of Gut wall
   D. Increased rate of contraction of Gut wall

12. The condition in which the lower Esophageal sphincter fails to relax is during
    A. Gastritis
    B. Achalasia cardia
    C. Esophagitis
    D. Peptic ulcer

13. As the salivary secretion passes through the ducts
    A. Na^+ is secreted into lumen
    B. K^+ is reabsorbed into ductal epithelium
    C. Cl^- is actively absorbed into ductal epithelium
    D. $HCO3^-$ is secreted into lumen

14. The ideal temperature required for Spermatogenesis is
    A. 24^oC
    B. 28^oC
    C. 32^oC
    D. 36^oC

15. Most effective contraceptive method in Females is
    A. Combined oral pill
    B. Vaginal ring
    C. Copper T
    D. Condom

****

Sl.No. M21005 Course Code : 161021T03

VINAYAKA MISSION'S RESEARCH FOUNDATION, SALEM

MBBS DEGREE EXAMINATION – August 2019

First Year

HUMAN PHYSIOLOGY INCLUDING BIO PHYSICS – PAPER I

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. What is counter current mechanism? Explain the physiological basis in concentration of urine.

2. Enumerate the hormones secreted by adrenal cortex. Describe the actions of glucocorticoids.

II. Write short notes on: **(5 x 5=25)**

3. Functions of plasma proteins
4. Sarcotubular system.
5. Active transport mechanisms.
6. Mechanism of HCL secretion
7. Female contraceptive methods.

III. Write briefly on: **(5x2=10)**

8. Gap junctions
9. Achalasia cardia
10. Mass peristalsis
11. Corpusluteum
12. Menopause.

*****