

**VINAYAKA MISSION'S RESEARCH FOUNDATION, SALEM
(Deemed to be University)**

BDS DEGREE EXAMINATION – August 2019

First Year

GENERAL HUMAN PHYSIOLOGY AND BIOCHEMISTRY

SECTION A

Time: Twenty Minutes

Maximum: 20 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 Twenty 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 20 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 20 minutes.**

GENERAL HUMAN PHYSIOLOGY
SECTION-A (20X1=20 MARKS)
(Multiple choice questions)

Time: Twenty Minutes

Maximum: 20 marks

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

1. The system of fibers maintaining the structure of the cell is
 - A. Actin
 - B. Myosin
 - C. Cytoskeleton
 - D. Troponin

2. Most of the plasma proteins are synthesized by
 - A. Liver
 - B. Kidney
 - C. Spleen
 - D. Pancreas

3. Erythropoietin is mainly produced in
 - A. Kidney
 - B. Bone marrow
 - C. Spleen
 - D. Lungs

4. In isotonic contraction
 - A. Length of the muscle increases
 - B. Tone of the muscle changes
 - C. Tone remains the same
 - D. Length remains the same

5. Normal stroke volume is
 - A. 5-6 ml/beat
 - B. 70-80 ml/beat
 - C. 5-6 L/beat
 - D. 20-30 L/beat

6. Exposure to high altitude causes
 - A. Hypoxic hypoxia
 - B. Stagnant hypoxia
 - C. Hystotoxic hypoxia
 - D. Anemic hypoxia

(p.t.o.)

7. Lipase helps in the digestion of

- A. Proteins
- B. Carbohydrates
- C. Fats
- D. Minerals

8. Somnambulism is

- A. Eating in sleep
- B. Walking in sleep
- C. Drinking in sleep
- D. Dancing in sleep

9. Astigmatism is corrected by

- A. Concave lens
- B. Convex lens
- C. Cylindrical lens
- D. Bifocal lens

10. Parturition is brought about by

- A. Vasopressin
- B. Oxytocin
- C. Thyroxine
- D. Ovary

BIOCHEMISTRY

11. Lysosome are the
 - A. Suicide bags
 - B. Power house
 - C. Mini cell
 - D. Transmembrane
12. Which one of the following is reduced equivalent
 - A. NADH
 - B. ATP
 - C. Co
 - D. O₂
13. Dietary fiber has following effects, except
 - A. Lowers cholesterol
 - B. Increase stool bulk
 - C. Decrease risk of cardio vascular disease
 - D. Increase the risk of diabetes mellitus
14. Laboratory diagnosis of AIDS is
 - A. Western blot
 - B. Southern blot
 - C. Northern blot
 - D. None of the above
15. The lipoprotein particles that have the highest concentration of triglycerides are
 - A. VLDL
 - B. HDL
 - C. LDL
 - D. Chylomicron
16. All amino acids found in protein are optically active , except
 - A. Serine
 - B. Glycine
 - C. Threonine
 - D. Tyrosine
17. All of the following serum enzymes are elevated in myocardial infarction , except
 - A. Alkaline phosphatase
 - B. Lactate dehydrogenase
 - C. Aspartate transaminase
 - D. Creatine kinase

(p.t.o.)

(Sl.No. M21503)

18. Hemoglobin is a
- A. Monomeric protein
 - B. Trimeric protein
 - C. Tetrameric protein
 - D. Dimeric protein
19. A nucleoside can be composed of, except:
- A. Purine base
 - B. Pentose sugar
 - C. Phosphate group
 - D. Pyrimidine base
20. The concentration of the following is inversely related to the risk of cardiovascular disease
- A. HDL
 - B. LDL
 - C. VLDL
 - D. IDL

(Sl.No. M21503)

VINAYAKA MISSION'S RESEARCH FOUNDATION, SALEM.
(Deemed to be University)

BDS DEGREE EXAMINATION – August 2019

First Year

HUMAN PHYSIOLOGY AND BIOCHEMISTRY

Time : Three hours

Maximum : 70 marks

Answer ALL Questions

Answer Section A in the Answer Sheet attached to it 20 marks – 20 minutes to be handed over to the invigilator immediately after 20 minutes

Answer Section B & C in separate Answer Book

Time : 2 hours 40 minutes

SECTION – B & C

Maximum : 50 marks

SECTION – B

HUMAN PHYSIOLOGY (25 marks)

I. Write an essay on :

(1 x 10= 10)

1. Define cardiac output and cardiac index. Give its normal values. Describe the factors regulating cardiac output. (2+2+6=10)

II. Write short notes on:

(3 x 5=15)

2. Classify hypoxia. Explain any two of them.
3. What is GFR? What is its normal value? How is it measured?
4. Describe the functions of saliva.

SECTION – C

BIOCHEMISTRY (25 marks)

I. Write an essay on :

(1 x 10= 10)

1. Name three vitamins which are require for proper functioning of nerves. Write RDA, Source, Biochemical function and deficiency manifestations of any one of them. (3 + 7)

II. Write short notes on:

(3 x 5=15)

2. Glycolysis and its energetic.
3. Structural organization of protein.
4. Name any five serum enzymes of clinical importance and disease associated with them.
