

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

BDS DEGREE EXAMINATION – July 2021

First Year

GENERAL HUMAN PHYSIOLOGY AND BIOCHEMISTRY

SECTION A

Time: Twenty Minutes

Maximum: 20 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 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. All of the following substances can be used to measure ECFV except
 - A. Radioactive sodium
 - B. Thiosulphate ion
 - C. Inulin
 - D. Thickness of the membrane

2. The antigen is
 - A. A
 - B. B
 - C. C
 - D. D

3. Pace maker potential is
 - A. Characterized by unstable RMP
 - B. Also called spike potential
 - C. Largely due to increased membrane permeability to k⁺
 - D. Characteristic of atrial and ventricular fibers

4. Amount of saliva secreted per day
 - A. 500ml
 - B. 1000ml
 - C. 1500ml
 - D. 2000ml

5. Volume conductor means
 - A. Spread of excitation wave towards the recoding electrode
 - B. Conduction of depolarization activity within the myocardium
 - C. Body fluids are good conductors of electricity
 - D. Record of electrical activity of heart from the body surface

6. 1 gm% of haemoglobin when fully saturated, can carry how much oxygen?
 - A. 3.46ml
 - B. 2.35ml
 - C. 1.34ml
 - D. 0.96ml

(p.t.o)

7. Juxta – Medullary nephrons:
- A. Manifest vascular supply in the form of Vasa recta only
 - B. Manifest vascular supply in the form of peritubular capillary plexus
 - C. Both a and b
 - D. None of the above
8. Retention of bile in blood leads to
- A. Impaired fat digestion
 - B. Itching
 - C. Decreased absorption of fat soluble vitamins
 - D. Defective haemoglobin
9. Growth hormone levels increases by all of the following except
- A. Growth hormone
 - B. Stress
 - C. Obesity
 - D. Exercise
10. Which of the papilla don't contain taste buds?
- A. Fungiform
 - B. Filiform
 - C. Vallate
 - D. Foliate

BIOCHEMISTRY

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

11. Cellulose is

- A. Animal Polysachharide
- B. Monosaccharide
- C. Plant polysachharide
- D. Mucopolysachharide

12. Insulin is

- A. Hypoglycemic hormone
- B. Hyperglycemic hormone
- C. Growth hormone
- D. Emergency hormone

13. Example for lung surfactant

- A. Lysolecithin
- B. Dipalmitoy lecithin
- C. Oxido reductase
- D. Isomerase

14. Which one of the following is imino acid

- A. Phenyl alanine
- B. Tyrosine
- C. Tryptophan
- D. Proline

15. Bile salts are derived form

- A. Phospholipids
- B. Triacyl glycerol
- C. Fatty acids
- D. Cholesterol

16. Bence jonece protein level is exclusively increased in

- A. Multiple myeoloma
- B. Atherosclerosis
- C. Myocardial infarction
- D. Hemophilia

(p.t.o.)

17. Liver diagnostic enzyme is
- A. Alkaline Phosphatase
 - B. Acid Phosphatase
 - C. Alanine transaminase
 - D. Amylase
18. Deficiency of Vitamin D is
- A. Scurvey
 - B. Anencephaly
 - C. Anemia
 - D. Rickets
19. Earlier marker of myocardial infarction is
- A. CK1
 - B. CK2
 - C. CK3
 - D. AST
20. Uracil is present in which of the following
- A. RNA
 - B. Nucleotide
 - C. Protein
 - D. DNA

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BDS DEGREE EXAMINATION – July 2021

First Year

GENERAL 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 the separate answer book

Time: 2 hours 40 minutes

SECTION – B& C

Maximum: 50 marks

SECTION – B

GENERAL HUMAN PHYSIOLOGY (25 MARKS)

I. Write an Essay on : (1 x 10 = 10)

1. Enumerate the descending tracts. Origin, course and function of motor tracts with a neat labeled diagram. Mention its effect of lesion at different levels.

II. Write short notes on : (3 x 5= 15)

2. Surfactant.
3. Define cardiac output. What are the methods to measure the cardiac output?
4. Describe Cystometrogram.

BIOCHEMISTRY (25 MARKS)

SECTION – C

III. Write an Essay on: (1 x 10 = 10)

1. Describe the biochemical functions, dietary requirement, source and homeostatis of calcium.

IV. Write short notes on : (3 x 5= 15)

2. Coenzymatic forms, functions and deficiency manifestations of B12.
3. Role of dietary fibre in nutrition.
4. Mutation and its different types.