Sl.No. M22005 **Course Code : 161321T03**

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

BDS DEGREE EXAMINATION – February 2020
First Year

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.**

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BIOCHEMISTRY

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. Chylomicrons are synthesized in
   A. Liver
   B. Intestine
   C. Pancreas
   D. Blood

2. Which of the following is not an essential aminoacid
   A. Histidine
   B. Leucine
   C. Glycine
   D. Methionine

3. Invert sugar is
   A. Sucrose
   B. Lactose
   C. Maltose
   D. Fructose

4. Which among the following immunoglobulin is responsible for allergic reactions
   A. IgA
   B. IgG
   C. IgM
   D. IgE

5. The enzymes of glycolysis are present in
   A. Mitochondria
   B. Cytosol
   C. Plasma membrane
   D. Inter membrane space

(p.t.o.)

6. Which of the following has unusual bases
   A. tRNA
   B. mRNA
   C. rRNA
   D. hnRNA

7. The O_2 in Hemoglobin is bound to _____ of hemoglobin
   A. Iron Atom
   B. Histidine residues
   C. Lysine residues
   D. Nitrogen atoms

8. Deficiency of Thiamine produces
   A. Beri-beri
   B. Pellagra
   C. Scurvy
   D. Nyctalopia

9. The component in cornea and cartilage is
   A. Kerato sulphate
   B. Chondrotin sulphate
   C. Heparin
   D. Dermatan sulphate

10. A lipo protein inversely related to artherosclerosis is
   A. VLDL
   B. LDL
   C. HDL
   D. IDL

11. Tryptophan is the precursor for
   A. Melatonin
   B. Epinephrine
   C. Thyroxine
   D. Mealnin

12. Plasma calcium is covered by
   A. PTH
   B. Aldosterone
   C. Calcitriol
   D. Calcitonin

13. Zymogen is
    A. An intracellular enzyme
    B. Serum enzyme
    C. Inactivated enzyme
    D. Extracellular enzyme

14. In terms of excretion of nitrogenous waste, human beings are
    A. Ureotelic
    B. Uricotelic
    C. Ammonotelic
    D. Both A & B

15. According to Chargaff's rule
    A. A=T, G≡C
    B. A≡T, G=C
    C. G=A, T=C
    D. G=C, A=C

16. During fasting, the first source of energy available to the body is
    A. Muscle glycogen
    B. Muscle protein
    C. Liver glycogen
    D. Triacyl glycerol

17. Osazones are not formed with
    A. Glucose
    B. Fructose
    C. Sucrose
    D. Lactose

18. Which of the following Vitamin is required for collagen biosynthesis
    A. Nicotinic acid
    B. Pantothenic acid
    C. Folic acid
    D. Ascorbic acid

19. Phenylketonuria is due to deficiency of
    A. Phenylalanine oxidase
    B. Phenylalaine hydroxylase
    C. Phenyl alanine hydrolase
    D. Phenylalanine deaminase

20. Proteins are polymers of
    A. D α amino acids
    B. D β amino acids
    C. L α amino acids
    D. L β amino acids

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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 same answer book

Time : 2 hours 40 minutes **SECTION – B & C** Maximum : 50 marks

SECTION – B

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

1. Write in detail about biochemical functions of calcium and phosphorus. Mention the normal levels of calcium and phosphorus. Add a note on role of Vitamin D in calcium homeostasis.

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

2. Lipoproteins
3. Sources, function and deficiency symptoms of Vitamin K
4. Gout

SECTION – C

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

5. How is free ammonia liberated from proteins? Explain its utilization in urea cycle. Add a note on regulation of urea cycle.

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

6. Essential fatty acid
7. Obstructive jaundice and its clinical findings
8. tRNA.

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