

Sl.No. M21921

Course Code : 161021T05

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

MBBS DEGREE EXAMINATION – October 2019

First Year

BIOCHEMISTRY - 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.**

BIOCHEMISTRY - 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. Deficient enzyme in Hurler's disease is
 - A. β -D-galactosidase
 - B. L-iduronidase
 - C. Heparan sulfatase
 - D. Galactosamine sulfatase

2. Common enzyme deficiency resulting in galactosemia
 - A. Galactokinase
 - B. Galactose -1- phosphate uridyl transferase
 - C. Epimerase
 - D. Galactose – 1- phosphate pyrophosphorylase

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

4. Unsaturated fatty acid is
 - A. Stearic acid
 - B. Palmitic acid
 - C. Oleic acid
 - D. Myristic acid

5. In lipoprotein electrophoresis ,the pre beta band is formed by
 - A. LDL
 - B.VLDL
 - C.HDL
 - D. Chylomicrons

6. Rate limiting enzyme of cholesterol synthesis is
 - A. HMG-CoA synthase
 - B. HMG-CoA lyase
 - C. HMG-CoA reductase
 - D. Acetoacetyl-CoA synthase

(p.t.o.)

7. Hydrolysis of ATP to ADP releases
- A. -10.7 Kcal/mol
 - B. -14.8 Kcal/mol
 - C. -7.3 Kcal/mol
 - D. -12.3 Kcal/mol
8. Fetal haemoglobin has
- A. 2 epsilon & gamma chains
 - B. 2alpha & 2 delta chains
 - C. 2 alpha & 2 beta chains
 - D. 2 alpha & 2 gamma chains
9. Lead inhibits
- A. ALA synthase
 - B. ALA dehydratase
 - C. Heme synthase
 - D. Porphobilinogen-1-synthase
10. Elevated enzyme in Obstructive jaundice is
- A. Alkaline phosphatase
 - B. Alanine transaminase
 - C. Aspartate transaminase
 - D. Glutamate dehydrogenase
11. Group transferred by thiamine pyrophosphate
- A. Amino group
 - B. Hydroxyethyl
 - C. Carbon dioxide
 - D. Acyl groups
12. Marker enzyme of peroxisomes is
- A. ATP Synthase
 - B. Glucose-6-phosphatase
 - C. Catalase
 - D. Lactate dehydrogenase
13. Negative nitrogen balance is observed in
- A. Chronic fever
 - B. Growth period
 - C. Convalescence
 - D. Pregnancy

-- (3) --

14. Folic acid is inhibited by

- A. Methotrexate
- B. Dicoumarol
- C. Avidin
- D. Isoniazid

15. Coagulation factors dependent on Vitamin K are

- A. II,III,V &VII
- B. II,VII,IX & X
- C. II,III,IV & V
- D.IV,V,VII & VIII

(Sl.No. M21921)

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

MBBS DEGREE EXAMINATION – October 2019

First Year

BIOCHEMISTRY - 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. Name the sources, active form, metabolism, RDA, Biochemical functions and deficiency diseases of Vitamin B₁₂.
2. Discuss in detail about the β -oxidation of palmitic acid. Add a note on its regulation and energetic.

II. Short notes on :

(5 x 5=25)

3. Significance of pentose phosphate pathway.
4. Regulation of enzyme activity by covalent modification.
5. Protein energy malnutrition.
6. Steps involved in Heme synthesis.
7. Inhibitors of Electron Transport chain.

III. Answer briefly on :

(5 x 2 = 10)

8. Name any two glucosaminoglycens and their functions.
9. Functions and marker enzyme of mitochondria.
10. Name any two phospholipids and its functions.
11. Biochemical functions of Vitamin B₁.
12. Specific dynamic action.
