Sl.No. M21442 Course Code: 161021T05

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

MBBS DEGREE EXAMINATION – August 2019 First Year

BIOCHEMISTRY - PAPER I

SECTION A

Time: Fifteen Minutes							Maximum: 15 marks			
Register Number :										
Signature of the candidate Signature									gnature 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.

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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. Which of the following is not a hexose?
 - A. Glucose
 - B. Erythrose
 - C. Galactose
 - D. Fructose
- 2. What is formed by carbohydrates with free sugar group in mild alkaline conditions
 - A. Furfural
 - B. Alcohol
 - C. Osazone
 - D. Enediol
- 3. Which hormone favors glycolysis
 - A. Glucacon
 - B. Epinephrine
 - C. Insulin
 - D. Glucocorticoid
- 4. Which of the following belongs to $\omega 3$ (omega3) family of fatty acids
 - A. Linoleic acid
 - B. Linolenic
 - C. Arachidonic
 - D. Oleic acid
- 5. Which enzyme uses succinyl cort for fatty acid activation
 - A. Thiokinase
 - B. Thiophorase
 - C. Translocase
 - D. Thiolase

- 6. Which apolipoprotein is not present in HDL
 - A. Apo A1
 - B. Apo A2
 - C. Apo B48
 - D. Apo C
- 7. What is the cause for keratomalacia
 - A. Vitamin D deficiency
 - B. Iron deficiency
 - C. Vitamin A deficiency
 - D. Calcium deficiency
- 8. Which of the following enzyme is used in treating malignancy
 - A. Glucose oxidase
 - B. Asparaginase
 - C. Uricase
 - D. Lactate dehydrogenase
- 9. Which vitamin deficiency occurs by treating tuberculosis with INH
 - A. Biotin
 - B. Pyridoxine
 - C. Riboflavin
 - D. Thiamine
- 10. Which of the following Vitamin is produced from tryptophan?
 - A. Thiamine
 - B. Riboflavin
 - C. Niacin
 - D. Biotin
- 11. What is the term used to denote the ratio of CO₂ produced to oxygen consumed?
 - A. Basal metabolic rate
 - B. Specific dynamic rate
 - C. Respiratory quotient
 - D. Biological value

(p.t.o.)

- 12. Which porphyria is inherited as autosomal recessive
 - A. Acute intermittent
 - B. Congenital erythropoietic
 - C. Variegate
 - D. Coproporphyria
- 13. Which of the following is an uncoupler
 - A. Thiamine
 - B. Thyroxine
 - C. Threonine
 - D. Epinephrine
- 14. Which of the following has highest SDA
 - A. Fat
 - B. Carbohydrates
 - C. Protein
 - D. Minerals
- 15. What is the marker enzyme for microsomes
 - A. ATP synthase
 - B. Cathepsin
 - C. Salactosyl transferase
 - D. Glucose 6 phosphatase

(Sl.No. M21442)

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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:

 $(2 \times 15 = 30)$

- 1. Write down the steps of formation of glucose from lactate with its regulation and note on cori cycle. (8+4+3)
- 2. Which nutrient deficiency causes scurvy? What are its sources, daily requirement and biochemical functions.

II. Short notes on: $(5 \times 5=25)$

- 3. Glucogen storage diseases
- 4. Chylomicrons
- 5. Phospholipids
- 6. Thiamine
- 7. BMI

III. Answer briefly on:

 $(5 \times 2 = 10)$

- 8. What is the role of transketolase?
- 9. What is methyl malonyl aciduria?
- 10. What is gamma carboxylation give example?
- 11. Write two congenital hyper bilirubinemia with the defective enzyme.
- 12. What is competitive inhibition with EG.