

Sl.No. M23006

Course Code : 161021T06

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

MBBS DEGREE EXAMINATION – October 2020

First Year

BIOCHEMISTRY- PAPER II

SECTION A

Time: Fifteen Minutes

Maximum: 15 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 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 II

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. Dopamine a neurotransmitter is derived from

- A) Tyrosine
- B) Tryptophan
- C) Histidine
- D) Methionine

2. Guanidine group containing Aminoacid is

- A) Alanine
- B) Arginine
- C) Aspartic Acid
- D) Glutamic Acid

3. Purely Glucogenic Aminoacid is

- A) Glycine
- B) PhenylAlanine
- C) Isoleucine
- D) Tryptophan

4. Molecular scissors are

- A) Exonucleases
- B) Restriction Endonucleases
- C) Reverse Transcriptase
- D) Helicase

5. DNA formed from RNA template is due to the activity of the enzyme

- A) RNA Polymerase
- B) DNA Polymerase
- C) Reverse Transcriptase
- D) DNA Primase

6. Hyperchloremia is seen in

- A) Excessive vomiting
- B) Excessive Sweating
- C) Addison's disease
- D) Cushing's Syndrome

7. Normal Anion gap Acidosis is seen in

- A) Lactic Acidosis
- B) Salicylate Poisoning
- C) Organic Aciduria
- D) Renal Tubular Acidosis

8. Chain breaking Antioxidants is

- A) Catalase
- B) Glutathione Peroxidase
- C) Superoxide Dismutase
- D) Ethylene di amine tetraacetate

9. The following mineral is required for Tyrosinase activity

- A) Copper
- B) Magnesium
- C) Iron
- D) Zinc

10. The following mineral stabilizes Insulin molecules

- A) Selenium
- B) Manganese
- C) Copper
- D) Zinc

11. Hypocalcemia is seen in

- A) Metastatic carcinoma of bone
- B) Paget's disease
- C) Multiple Myeloma
- D) Medullary carcinoma of Thyroid

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12. Glutathione does not contain the following Amino acid

- A) Glutamic Acid
- B) Glycine
- C) Cysteine
- D) Alanine

13. Detoxification of Benzoic Acid to form Hippuric Acid requires

- A) Glutamic Acid
- B) Histidine
- C) Glycine
- D) Cysteine

14. Nitric oxide is formed from

- A) Arginine
- B) Alanine
- C) Glutamic Acid
- D) Aspartic Acid

15. Melatonin is synthesized from

- A) Tyrosine
- B) Tryptophan
- C) Histidine
- D) Glycine

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First Year

BIOCHEMIST– PAPER II

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. Discuss in detail recombinant DNA technology. Write its clinical application.
2. Write the sources, daily requirement, biochemistry functions of calcium. Add a note on hypocalcaemia.

II. Short notes on :

(5 x 5= 25)

3. Renal regulation of acid base balance.
4. Transmethylation reactions and its importance.
5. tRNA – transfer RNA
6. Biological important compounds formed from tyrosine.
7. Antioxidants

III. Answer briefly on:

(5 x 2 = 10)

8. Reverse transcriptase.
9. Creatinine clearance test.
10. Role of insulin in regulation of blood sugar.
11. Name any two tumour markers and write their importance.
12. Give two examples of detoxification by conjugation mechanism.
