

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

BDS DEGREE EXAMINATION – JANUARY 2021

First Year

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.

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. Carbohydrate which help in maintaining transparency of lens is
 - A. Chondroitin sulphate
 - B. Dermatan Sulphate
 - C. Heparin
 - D. Inulin

2. Basal Metabolic Rate is increased in all the conditions **EXCEPT**
 - A. Exercise
 - B. Fever
 - C. Starvation
 - D. Growing period

3. Electron Transport Chain is located in
 - A. Mitochondrial matrix
 - B. Outer membrane of mitochondria
 - C. Inner membrane of mitochondria
 - D. Inter mitochondrial space

4. $\text{Na}^+ \text{K}^+$ ATPase is located in
 - A. Nucleus
 - B. Ribosome
 - C. Peroxisome
 - D. Plasma Membrane

5. The following are dietary fibres **EXCEPT**
 - A. Pentose
 - B. Pectins
 - C. Gums
 - D. Cellulose

6. Physiological Uncoupler is
 - A. 2,4 Dinitrophenol
 - B. 2,4Dinitrocresol
 - C. Thermogenin
 - D. Pentachlorophenol

(p.t.o.)

7. For the diagnosis of Diabetes Mellitus the cut off value for fasting plasma glucose is
- A. 70 – 110m/dl
 - B. >140mg/dl
 - C. <110mg/dl
 - D. >126mg/dl
8. Disaccharide obtained by hydrolysis of starch is
- A. Lactose
 - B. Maltose
 - C. Sucrose
 - D. Trehalose
9. Which one of the following homopolysaccharide is made up of N-acetyl-D-glucosamine?
- A. Starch
 - B. Glycogen
 - C. Chitin
 - D. Cellulose
10. Fluoride ion inhibits
- A. Enolase
 - B. Hexokinase
 - C. Pyruvate Kinase
 - D. Phosphofructokinase
11. Which one of the following is not a characteristic feature of genetic code
- A. Degenerate
 - B. Ambiguous
 - C. Non overlapping
 - D. Universal
12. The backbone of nucleic acid structure is constructed by
- A. Peptide bond
 - B. Glycosidic bond
 - C. Phosphodiester bond
 - D. Hydrogen bond
13. Starting codon is
- A. AUG
 - B. CAG
 - C. CCA
 - D. GUA

14. Type of mutation in sickle cell anaemia is
- A. Silent
 - B. Nonsense
 - C. Frame shift
 - D. Missense
15. Normal value for serum uric acid in adult male is _____ mg/dl
- A. 3.5 – 4.5
 - B. 3.5 – 7.0
 - C. 2.5 – 5.5
 - D. 2.0 – 6.0
16. Colon cancer is diagnosed by estimating
- A. HCG
 - B. AFP
 - C. CEA
 - D. PSA
17. Which of the following is not a feature of Primary Hypothyroidism
- A. Low T4
 - B. High serum Cholesterol
 - C. Low TSH
 - D. Low T3
18. The concentration of total protein in the plasma of human is
- A. 6.0 – 8.0gm/dl
 - B. 6.0 – 7.0 mg/dl
 - C. 4.0 – 7.0gm/dl
 - D. 7.0 – 7.4gm/dl
19. Detoxification takes place in
- A. Lungs
 - B. Kidney
 - C. Spleen
 - D. Liver
20. Which one of the following is not a feature of Reactive Oxygen Species?
- A. Extreme reactivity
 - B. Long life span
 - C. Generation of new ROS by chain reaction
 - D. Damage to various tissues.

Sl.No. M23074

Course Code: 161321T03

**VINAYAKA MISSION'S RESEARCH FOUNDATION, SALEM
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BDS DEGREE EXAMINATION – JANUARY 2021

First Year

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. Define and classify enzymes with suitable examples. Write in detail about factors affecting enzyme activity. (1 + 4 + 5)

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

2. Polysaccharides.
3. Liver Function Tests.
4. Classification of lipids.

SECTION – C

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

5. Write in detail about the steps Urea Cycle. Add a note on disorders of Urea cycle. (7 + 3)

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

6. Gout
7. Functions of albumin
8. Buffers in blood
