Please write your Roll Number above this line

Total Number of Pages 16

B.V.Sc. & A.H. (Second Professional) Examination – 2023

Veterinary Biochemistry Paper –I

(MSVE 2016)

Library

To be filled by the candidate:

Candidate's Roll Number:

In figure .....

In words .....

Candidate's Enrolment Number: .....

Day and date of examination: .....

Please see for general instructions overleaf.

Signatures of invigilators verifying the details filled by the candidate

Signature of invigilator 1: ..... 2: .....

Candidate should not write anything below this line

Marks to be filled by the examiner:

Section A	
Q. No.	**Marks**
1.	
2.	
3.	
4.	
5.	
Total	

Total Marks obtained:

In figures: ..... In words: .....

Signature of examiner: .....

Donot write across this line

Donot write across this line

Page 1 of 16

Please write your Roll Number above this line

B.V.Sc. & A.H. (Second Professional) Examination – 2023
Veterinary Biochemistry Paper -I

Time: Three Hours **Maximum Marks: 100**
Weightage: 20

Unit-1 (General Veterinary Biochemistry)
Unit-3 (Veterinary Analytical Biochemistry)

Instructions:
1) Attempt all questions
2) Answer of all questions is to be written in the space provided along with the question in question-booklet.
3) Overwriting is not allowed in the objective type question.

Q.1 Fill in the blanks. **(20x0.5 = 10)**

1.1 The bonds forming the backbone of protein structure _____.

1.2 The concentration of serum enzyme elevated in carcinoma of prostate gland is _____

1.3 Foreign molecules which enter the body are called _____

1.4 The pyrimidine present in DNA but absent in RNA _____.

1.5 The acceptor arm of tRNA contains a capped nucleotide sequence _____.

1.6 Glucose and Galactose are epimers of each other at carbon number _____

1.7 Ketone bodies in urine are detected by _____test.

1.8 Bile acids are synthesized in liver from _____

1.9 Proteins are the polymers of _____.

1.10 Write the name of the ring present in cholesterol _____

1.11 _____ is the only physiologically significant site for the formation of ketone bodies.

1.12 Phosphatidyl choline is also known as _____

1.13 Polysaccharide used for assessing kidney function through measurement of glomerular filtration rate is _____

1.14 Membrane transport mechanism dependent on the supply of metabolic energy is termed as _____.

1.15 Hippuric acid synthesis test is used to test _____ function of liver.

1.16 "Maturity" onset diabetes or type II diabetes is _____ dependent on insulin.

Do not write across this line

Please write your Roll Number above this line

1.17 Creatine kinase is mainly used for diagnosis of diseases of _____

1.18 _____ is the structural polysaccharide of insect.

1.19 The main physiological buffer in the blood is _____

1.20 The absence of hydrochloric acid in gastric secretion is termed as _____

Q.2 Choose the most suitable answer and write the number of the correct answer 1 or 2 or 3 or 4 in the space given against each sub question: (20x0.5 = 10)

2.1 Beta pleated structure of protein is an example of ( )
1. Primary structure
2. Secondary structure
3. Tertiary structure
4. Quaternary structure

2.2 Nucleosides are made up of ( )
1. Deoxy ribose-Nitrogenous base
2. Ribose-base-phosphoric acid
3. Ribose-Nitrogenous base
4. None of above

2.3 The bond in protein structure which is not broken by denaturation ( )
1. Hydrogen bond
2. Peptide bond
3. Ionic bond
4. None of above

2.4 Ribose and deoxyribose differs in their structure around ( )
1. 1st carbon
2. 2nd carbon
3. 3rd carbon
4. 4th carbon

2.5 Amino acid involved in conjugation reaction of detoxification ( )
1. Glycine
2. Cysteine
3. Glutamine
4. All of the above

2.6 Prostaglandins are derived from ( )
1. Proteins
2. Carbohydrates
3. Arachidonic acid
4. Cholesterol

2.7 The imino acid found in protein structure is ( )
1. Proline
2. Leucine
3. Lysine
4. Glycine

Donot write across this line

2.8 The

2.9 The

2.10 The

2.11 Ins

2.12 The

2.13 Whi

2.14 Dire

2.15 A m

2.16 pH

2.8 The nitrogenous base that is never found in the genetic code is ( )
1. Adenine
2. Guanine
3. Thymine
4. Cytosine

2.9 The enzyme concentration increased in myocardial infarction ( )
1. Creatine kinase
2. Lactate dehydrogenase
3. Aspartate aminotransferase
4. All of above

2.10 The lipid(s) which are most abundant in the cell membrane is ( )
1. Glycolipids
2. Phospholipids
3. Sphingolipids
4. None of above

2.11 Insulin is secreted from _____ cells of pancreas ( )
1. Alpha cells
2. Beta cells
3. Gamma cells
4. None of above

2.12 The colour test of protein identifies protein with at least two peptide bonds ( )
1. Biuret test
2. Millon's test
3. Xanthoproteic test
4. Hopkins Cole test

2.13 Which of the following substances is present in plasma but not in serum? ( )
1. Globulins
2. Inorganic ions
3. Erythrocytes
4. Fibrinogen

2.14 Direct colour reaction in Van den Bergh test observed in ( )
1. Hemolytic jaundice
2. Hepatic jaundice
3. Megaloblastic anemia
4. Obstructive jaundice

2.15 A mRNA of eukaryotes can code for ( )
1. Only one polypeptide
2. Two polypeptide
3. Three polypeptide
4. Many polypeptide

2.16 pH of healthy blood is ( )
1. 7.35
2. 11.5
3. 37
4. None of the above

2.17 Which one is not Essential fatty acids ( )
1. Palmitic acid
2. Linoleic acid
3. Linolenic acid
4. Archidonic acid

2.18 A disaccharide containing glucose and galactose is ( )
1. Maltose
2. Lactose
3. Trehalose
4. Sucrose

2.19 The plasma proteins perform all the following functions except: ( )
1. They exert an osmotic force
2. They have a buffering action.
3. They increase the capillary permeability
4. They play a role in the body defense mechanisms.

2.20 If the increased CO2 caused the acidosis or alkalosis, it is what? ( )
1. Metabolic acidosis
2. Metabolic alkalosis
3. Respiratory acidosis
4. Repiratory alkalosis

Q.3 Attempt any ten out of the following twelve questions. Answer of each question should be in 2 to 3 lines. **(10x2.0= 20)**

3.1 Define lipids

3.2 Define pH

3.3 Passive transport

3.4 Fats and oils

3.5 Purines

3.6 Essential amino acids

3.7 Sucrose

3.8 Chargaff's rule

Please write your Roll Number above

3.9 Glycosuria

3.10 Shock

3.11 Bilirubin

3.12 Non functional plasma enzymes

Q.4 Attempt any six out of the following eight questions. Answer of each question should be in 8 to 10 lines. **(6 x 6.0 = 36)**

4.1 Write short notes on Cholesterol.

Please write your Roll Number above this line

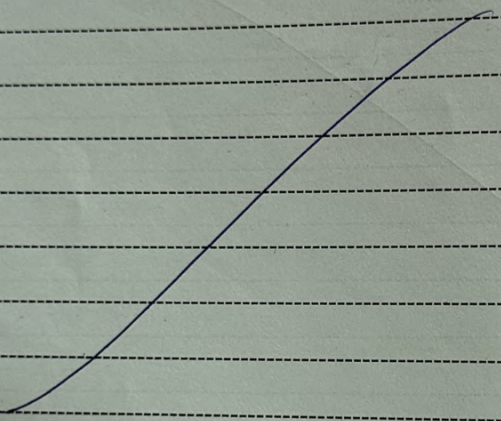
Donot write across this line

4.2 Write about Essential fatty acids.

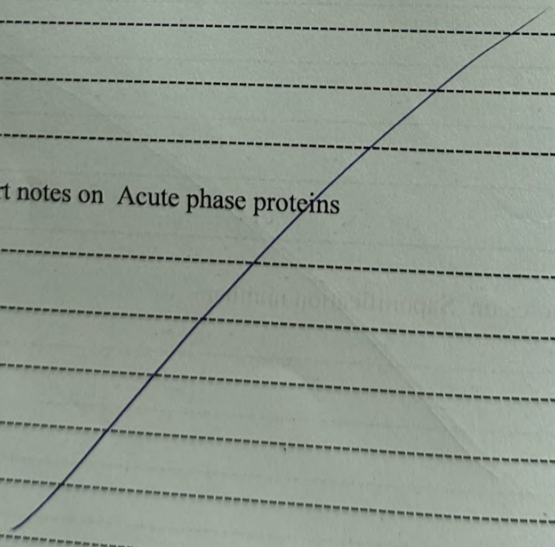
4.3 Write short notes on Saponification number

Please write your Roll Number above this line

4.4 Write short notes on Hypoglycemia in baby pigs



4.5 Write short notes on Acute phase proteins



Do not write across this line

Please write your Roll Number above this line

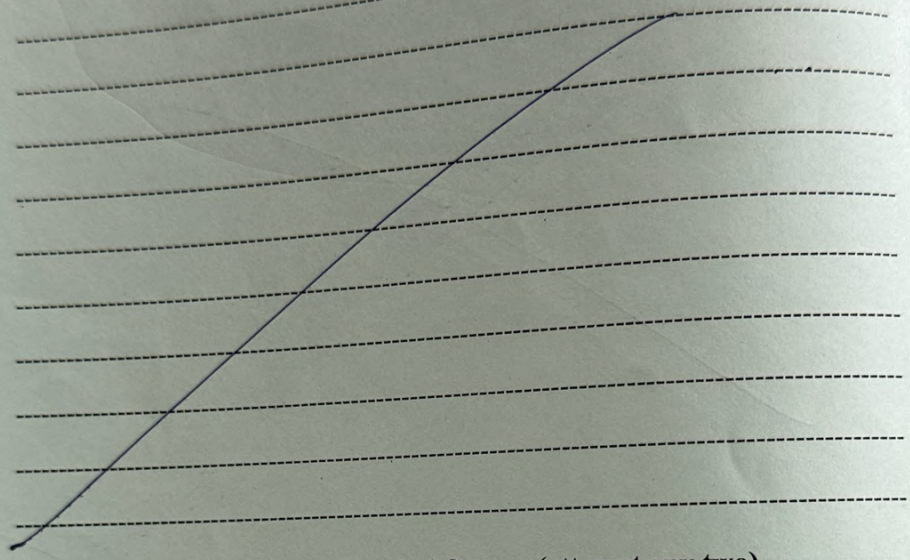
Donot write across this line

4.6 Write short notes on mRNA

4.7 Write short notes on Optical isomers of Carbohydrates

Please write your Roll

4.8 Write short notes on Ruminal blot



Q.5 Answer the following question in 1-2 pages (attempt any two). **(2x12.0 = 24)**

5.1 Write short notes on any two

a). Explain physiological buffer systems of body. (4 marks)

b). Write short notes on Rancidity of fats. (4 marks)

c) Watson and Crick model of DNA structure. (4 marks)

5.2 a). Give an account of Enzymes of diagnostic importance (8 marks)

b). Write down Classification of liver function test. (4 marks)

5.3 a) Write in details about Classification of carbohydrates. (8 marks)

b) Explain Clover leaf model of structure of tRNA (4 marks)

Do not write across this line