

B.V.Sc. & A.H. (First Professional) Examination – 2022

Veterinary Physiology Paper -I

(MSVE 2016)



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 overleaf for general instructions.

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:

B.V.Sc. & A.H. (First Professional) Examination – 2022
Veterinary Physiology Paper – I
(MSVE 2016)

Time: Three Hours

Maximum Marks: 100

Weightage: 20

Unit-1 : Blood, Cardiovascular, Nervous and Muscular Systems
Unit-2 : Digestive and respiratory Systems

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 True oxide of Hemoglobin is _____.
- 1.2 Maturation arrest of erythrocytes occurs at _____ stage in iron deficiency anaemia.
- 1.3 Plasma protein _____ is responsible for maintaining osmotic pressure of blood.
- 1.4 Insoluble form of iron storage is _____.
- 1.5 Macrophages are modified _____ cells.
- 1.6 Instrument used to record electrical activities of the heart is called _____.
- 1.7 Distension of heart release hormone _____ which decreases the blood volume.
- 1.8 First heart sound is produced due to closure of _____ valves.
- 1.9 Cardiac output is _____ during stressful conditions.
- 1.10 Blood flows at _____ pressure in veins in comparison to arteries.
- 1.11 The difference between Systolic and Diastolic pressure is called _____.
- 1.12 Maximum pressure in arteries during contraction of heart is called _____ pressure.
- 1.13 Myelin sheath is formed by _____ cells in CNS.
- 1.14 Preganglionic nerve fibres of sympathetic NS secrete _____ neurotransmitter.

- 1.15 _____ is an excellent shock absorber and helps to protect brain and spinal cord from trauma.
- 1.16 Following coagulation, the blood clot retracts, thereby forcing from the clot a clear watery fluid called _____.
- 1.17 During _____ phase of gastric secretions, the gastric glands are stimulated in anticipation of smell of food.
- 1.18 HCl secreting cells in gastric glands are called _____ cells.
- 1.19 The main digestive enzyme-producing organ in the body is the _____.
- 1.20 _____ is the proteolytic enzyme secreted by the gastric glands in neonates.

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 Semilunar valves are opened when _____ ()
1. Intraventricular pressure is lesser than pressure in aorta
 2. Intraventricular pressure is greater than pressure in aorta
 3. Pressure is same in ventricles and aorta
 4. None of the above
- 2.2 Blood clot in blood vessels is dissolved by _____ ()
1. Protease
 2. Plasmin
 3. Elastase
 4. Trypsin
- 2.3 Which of the following is not involved in the process of clotting? ()
1. Vitamin K
 2. Prothrombin
 3. Heparin
 4. Calcium
- 2.4 Globin protein in fetal hemoglobin consist of _____ ()
1. Two alpha and two beta chains
 2. Two beta and two delta chains
 3. Two alpha and two gamma chains
 4. Two delta and two gamma chains
- 2.5 Descending tracts which control posture and body movements in animals are _____ ()
1. Extrapyramidal Tracts
 2. Pyramidal Tracts
 3. Dorsal Spinocerebellar Tracts
 4. Ventral Spinocerebellar Tracts
- 2.6 Site of microbial digestion in poultry is _____ ()
1. Crop
 2. Gizzard
 3. Proventriculus
 4. Caeca

- 2.7 Transport of rumino-reticular content back into oral cavity is known as ()
1. Regurgitation
 2. Rumination
 3. Vomition
 4. Eructation
- 2.8 Air sacs are responsible for ()
1. Ventilation
 2. Gas exchange
 3. Both a & b
 4. None of the above
- 2.9 Stimulation of parasympathetic portion of the nervous system causes ()
1. Dilation of airways in the lungs
 2. Dilation of pupil in the eye
 3. Increased gastrointestinal function
 4. Increased heart rate
- 2.10 What is the name given to the white of the eye ()
1. Sclera
 2. Retina
 3. Conjunctiva
 4. Cornea
- 2.11 Group of axons in CNS are called ()
1. Ganglion
 2. Nuclei
 3. Tract
 4. Nerve
- 2.12 Erythrocyte sedimentation rate is ()
1. More in buffaloes than cattle
 2. Less in buffaloes than cattle
 3. Same in buffaloes and cattle
 4. None of the above
- 2.13 Normal resting type of respiration is known as ()
1. Apnea
 2. Eupnea
 3. Dyspnea
 4. Polypnea
- 2.14 Isoacids are the end products of breakdown of which of these in the rumen ()
1. Carbohydrate
 2. Proteins
 3. Fats
 4. Urea
- 2.15 Which of the following is not an end product of carbohydrate fermentation in the rumen? ()
1. VFAs
 2. Methane
 3. Carbon dioxide
 4. Glycerol

- 2.16 Language and fine activities of the body are predominantly controlled by ()
1. Left hemisphere
 2. Right hemisphere
 3. Both the hemispheres
 4. None of the above
- 2.17 Release of neurotransmitter from nerve terminals requires ()
1. Calcium ions
 2. Sodium ions
 3. Potassium ions
 4. Chloride ions
- 2.18 Which type of receptors are responsible for the sensation of pain ()
1. Mechanoreceptors
 2. Chemoreceptors
 3. Proprioceptors
 4. Nociceptors
- 2.19 Domestic animals have ()
1. Monochromatic Vision
 2. Dichromatic Vision
 3. Trichromatic Vision
 4. Tetrachromatic Vision
- 2.20 Cerebrospinal fluid is produced by ()
1. Brachial plexus
 2. Arachnoid villi
 3. Choroid plexus
 4. Duramater

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 Cardiac Output

3.2 Prehension

3.3 Blind spot

3.4 Appetite

3.5 Sarcomere

3.6 Inspiratory reserve volume

3.7 Saltatory conduction

Do not write across this line

3.8 Unipolar Neurons

3.9 Diastolic pressure

3.10 Rigor mortis

3.11 Lung compliance

3.12 Plasma cells

Do not write across this line

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 Erythropoiesis

4.2 Role of kidney in maintaining blood pressure

Do not write across this line

Please write your Roll Number above this line _____

4.3 Advantages and disadvantages of ruminant digestion

Handwriting practice lines for question 4.3, consisting of 15 horizontal dashed lines.

4.4 Plasma proteins

Handwriting practice lines for question 4.4, consisting of 15 horizontal dashed lines.

4.5 Frank Sta

4.6

Do not write across this line
Do not write across this line

Please write your Roll Number above this line

4.5 Frank Starling mechanism

Dotted lines for writing the answer to question 4.5.

4.6 Anaemia

Dotted lines for writing the answer to question 4.6.

4.7 Shock

Dotted lines for writing the answer to question 4.7.

Do not write across this line

Please write your Roll Number above this line

4.8 Electrocardiogram

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

- 5.1 What is cardiac cycle? Discuss various events of the cardiac cycle in detail.
- 5.2 Describe in detail the mechanism of blood coagulation.
- 5.3 Describe carbohydrate digestion and absorption in ruminants.