



SRI VENKATESWARA UNIVERSITY, TIRUPATHI

4 -Year UG Honours in B.vocational (Dairy and Animal Husbandry) Major in Consonance with Curriculum Frame work w.e.f AY 2026-27

COURSE STRUCTURE (for Semester IV)

Year	Semester	Course	Title of the course	No.o f hrs/ week	No.of credits
II	IV	8	Veterinary physiology (theory)	3	3
			Veterinary physiology (practical)	2	1
		9	Laboratory Diagnostic & Techniques (theory)	3	3
			Laboratory Diagnostic & Techniques (practical)	2	1
		10	Veterinary Gynacology & AI(Artificial insimulation)(theory)	3	3
			Veterinary Gynacology & AI (Artificial insimulation) (practical)	2	1

G. Srinivas

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Govt. Degree & P.G. College of Women

Chittoor - 517 044

SEMESTER-IV

COURSE 8: VETERINARY PHYSIOLOGY

Theory	credits-3	3hrs/week
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LEARNING OUTCOMES

After completion of course ,student is able to

- 1.Understanding and applying knowledge of organ system functions (cardiovascular, renal, nervous , etc.).
- 2.Maintaining homeostasis. Integrating different body systems.
- 3.Interpreting physiological data, explaining normal and abnormal function

UNIT – I

9 hrs

Introduction to Blood ;Properties of blood as a body fluid , plasma , its functions , Erythropoiesis, factor influencing Erythropoiesis ; Heamoglobin – structure , physiological functions leucocytes , differential leaucocyte count. Thrombocytes , Hemorrhage , hemostasis . Blood groups.

UNIT– II

9 hrs

Physiology of the gastrointestinal tracts of ruminants and monogastric animals prehension , defecation ;vomiting function of saliva digestion. Esophageal groove , rumination , fermentation.

UNIT– III

9 hrs

Physiology of respiration and mechanics of breathing . Transport of blood gases ,fetal and neonatal oxygen transport . Physiology of excretory system , nephron structure , urine formation .

UNIT – IV

9 hrs

Introduction and basics of endocrinology . Major endocrine glands and their hormones .Hormones and their action on different systems of the body.

UNIT– V

9 hrs

Physiology of puberty . Physiology of reproduction in male , spermatogenesis . Physiology of reproduction in female ,folliculogenesis , ovulation , estrus cycles . Mating behavior , fertilization , parturition .

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SEMESTER IV

COURSE 8 : VETERINARY PHYSIOLOGY

<u>Practical</u>	<u>credits -1</u>	<u>2hrs/week</u>
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1. Collection of blood samples – separation of serum and plasma.
2. Enumeration of erythrocytes.
3. Enumeration of leucocytes.
4. Differential leucocytic count.
5. Platelet count.
6. Estimation of hemoglobin.
7. Hematocrit – erythrocyte sedimentation rate – packed cell volume – coagulation time – bleeding time.
8. Counting of rumen motility.
9. Urine analysis – physiological constituents and pathological determinates.
10. Behavioral signs of estrus.
11. Sperm motility.
12. Sperm concentration – live and dead – abnormal sperm count.

Reference books :

1. Text book of veterinary physiology Bradley klein, Elsevier
2. Animal physiology M.Armugam, A. Mariakuttukam
3. Physiology of domestic animals Dukes
4. Text book of veterinary physiology B. Bhattacharya

MODEL QUESTION PAPER

course: B. Voc Dairy & Animal Husbandry

VETERINARY PHYSIOLOGY

Time: 3 hours

Marks: 75

SECTION – A

Answer all of the following question .Each question carries equal marks(5x3=15)

- 1.leukocytes
- 2.Rumination
- 3.Hemoglobin
- 4.Fermentation
- 5.Parturition
- 6.Nepron
- 7.Neonatal oxygen transport
- 8.Pancreas
- 9.Spermatogenesis
- 10.Fertilization

SECTION -B

Answer all of the following question .Each question carries equal marks (5x12=60)

11. (a) How does serum differ from plasma and what are the functions of serum in relation to

blood composition?

(OR)

(b) What is plasma and what role does it play in maintaining homeostasis and transporting

essential substances throughout the body ?

12. a) Explain the physiological characteristics of the gastrointestinal tracts in ruminants and

monogastric animals .

(OR)

b) Explain the process of prehension and defecation in animals

13. a) Explain the physiology of respiration .

(OR)

b) Discuss the transport of blood gases.

14. a) Discuss the effects of thyroid hormones on metabolism.

(OR)

b) Identify the major endocrine glands in the human body and describe the hormones they

produce

15. a) Discuss the physiology of puberty.

(OR)

b) Explain the physiology of reproduction in females.

4- Year UG Honours, Major
Syllabus
(2026-27)
Semester-IV

Model Question Paper

Time : 3hrs

Marks:75

Part-A

Answer any Five Questions. Each Question carries 3 Marks.

5x3=15

- 1.
- 2.
- 3.
- 4.
- 5.
- 6.
- 7.
- 8.
- 9.
- 10.

Answer the following questions. Each question carries 12 Marks

5x12=60

11. a) Unit-I
(Or)
b) Unit-I

12. a) Unit-II
(Or)
b) Unit-II

13. a) Unit-III
(Or)
b) Unit-III

14. a) Unit-IV
(Or)
b) Unit-IV

15. a) Unit-V
(Or)
b) Unit-V