

Semester II

Name of the Course: Introductory Veterinary Physiology and Biochemistry –II

Course No. AHD-122; Cr. Hrs. 3 (2+1)

Theory

1. General Physiology and Biochemistry of circulatory system- Cardiac cycle, system of heart, nervous control of blood flow, shock (blood volume and pressure), Venous and lymphatic return, theory of vaccination and immunity in animals.
2. General Physiology and Biochemistry of urinary system- Physiology of kidney and nephron.
3. General Physiology and Biochemistry of female genital system- Puberty, oogenesis ovulation, formation of corpus luteum, estrous cycle, hormones of female reproduction system, pregnancy and parturition,
4. General Physiology and Biochemistry of male reproduction system – Erection, ejaculation, hormones of male reproduction system, factors affecting working of testis, sex determination, spermatogenesis, spermatozoa, working of accessory glands
5. General Physiology and Biochemistry of milk letdown - Structure of udder, milk secretion, galactopoiesis, letdown of milk, formation of colostrum, milk fat and milk protein, agalactia.
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Practical

1. Study of circulatory system of various animals using charts and models
2. Study of cardiac cycle using charts
3. Study of urinary system
4. Study of kidney using charts and models
5. Study of male reproductive system using charts and models
6. An introduction to semen evaluation: Assessment of motility of spermatozoa, total spermatozoa count and Live and dead spermatozoa count
7. Study of female reproductive system using charts
8. Behavioural signs of oestrus in different species
9. Study of gestation length of various animals
10. Study of functional morphology of udder
11. Demonstration of milk let down by using model
12. Basic knowledge of hormones for pregnancy diagnosis in animals