Semester II

Name of course: Introductory veterinary pharmacology -II

Course No. AHD 212

Theory

1. Materia Medica

a) Alkali metal and ammonia- sodium chloride, sodium hydroxide, sodium carbonate, sodium bicarbonate, potassium chloride, potassium permanganate, potassium carbonate, potassium bicarbonate, potassium nitrate, potassium iodide, sodium citrate, ammonium chloride, liquor ammonia fort, ammonium carbonate, spirit ammonia aromaticus.

b) Alkali earth metal- calcium chloride, calcium gluconate, calcium borogluconate, calcium lactose, calcium phosphate, calcium hydroxide, creatapreparata, plaster of Paris, magnesium carbonate, magnesium sulphate.

c) Heavy metals – Aluminium hydroxide, kaolin, lead acetate, zinc sulphate, zinc oxide, calamine, copper sulphate, silver nitrate, mercurous chloride (calomel), bin iodide of mercury, mercurochrome, argirol, pretargol, ferrous sulphate, ferric chloride, tincture ferri-perchloride, cobalt chloride.

d) Metalloids- bismuth carbonate, bismuth sub nitrate, potassium antimony tartrate (tartar emetics), acetyl arsan, suramin, arsenic trioxide, calcium glycero phosphate.

e) Non-metal halogen- chlorine, iodine, oxygen, sulphur (sublimed), wood charcoal.

2. Systemic Pharmacology

a) Drugs action on Brain, nervous system – volatile general anaesthetic (chloroform, ether, trilene, ethylene, CCl_4), Narcotics (Alcohol), chloral hydrate, urea derivatives (Barbiturates) sulfonyl, group (Sulfonal), Alkaloid narcotics (opium, morphine, codeine) Cannabis, Cocaine, Nux vomica, Nikethamide, musk, Belladona, hyocyamus, Dhatura stramonium, vasaka, Tobacco, carbachol.

b) Drugs action on digestive system -

i. Digestive ferments, vegetable bitters and sweetening agents – Pulv zinger, malt, pepsin, sucrose, honey, saccharine

ii. Purgative – Castor oil, tincture asafetida, oil of alsi, croton oil, linseed oil, aloe

iii. Emollients and demulcents – Olive oil, groundnut oil, cotton seed oil, mustard oil, coconut oil, liquid paraffin, glycerin, gum acacia, starch, barley

iv. Vegetable astringent – Tannic acid, catechu

v. Volatile oil –

vi. Carminative group – clove oil, cardamom, coriandrum, Antithum, Anisi, Cinnamon.

vii. Counter irritant group – Turpentine, eucalyptus, capcicum, black pipper, garlic, onion.

c) Urinary antiseptic and diuretic –sandle wood

i. Solid volatile oil – Camphor, menthol, thymol

ii. Aloe, Gum, Resins – Asafoetida

d) Anthelmentic

i. Round worm and hook worm – Oil of chinapodium, piperazine adipate, diethyl/carbamazine CCl_4.

ii. Stomach worm – Fenovas, promentic, Butia semina, Beronia

iii. Tapeworm – Nux acacia, Diclorofen, Kamala, Pumpkin seed

iv. Fluke worm – CCl_4

v. Blood worm – Tarter emetics, Neguvon

e) Drugs action on circulatory system – cardiac depressant (aconite) cardiac tonic (digitalis, siquil) vasoconstrictor (adrenaline, amphetamine), vasodilator (amylnitrate).
f) Drugs act on respiratory system – expectorant (ipecacuhana)
g) Drugs act on reproductive system – Caffeine, sodium salicylate, potassium nitrate, theobromine, theophylline, ergot, oxytocin,
h) Drugs act on skin (integumentary system) – Paraffin, Vaseline, lard wax, gamaxene, soap, detergent, cetramide etc.
i) Dosage and mode of action of sulpha drugs and antibiotics used for the treatment of animal disease.
j) Incompatibility, toxic drugs and prevention thereof.

Practical

1. Importance of following in Pharmacological preparations : sodium chloride, potassium permanganate, potassium iodide, sodium citrate, liquor ammonia fort, spirit ammonia aromaticus , calcium borogluconate, plaster of paris, magnesium sulphate, zinc sulphate, kaolin, calamine, silver nitrate, bin iodide of mercury, bismuth subnitrate, iodine,s ulphur, charcoal.
2. Collection of blood, urine, faeces and milk for laboratory examination and dispatch of samples.
3. To prepare carminatives.
4. To prepare astringents.
5. Common names and uses of counter irritants, purgatives, urinary antiseptics, anthelmentics. Incompatability of drugs.