July-December MS in Pharmacology Final Examination-2015
Department of Physiology, Biochemistry and Pharmacology
Faculty of Veterinary Medicine
Chittagong Veterinary and Animal Sciences University
Course Title: Chemotherapy of Parasitic Disease; Course code: CPD-602
Total Marks: 40; Time: 2.00 hours

Answer any four (4) questions from the following:

Q1. a. Classify anti-parasitic drugs with examples. Write down the characteristics of ideal anthelmintics. 5.0
b. Write down the general mode of action of anthelmintics 5.0

Q2. a. Write down the mode of action, dose, indication and contraindication of sulphur drug in poultry coccidiosis. 5.0
b. What are the differences between coccidiostats and coccidiocidal drugs? List the anti-coccidial drugs of livestocks. 5.0

Q3. a. Write down the mode of action, dose, indication and contraindication of ivermectin. 5.0
b. What are the characteristics of livamisole? Write down mechanism of action of livemisole. 5.0

Q4. a. Write down the mechanism of action, dose, indication and contraindication of piprazine citrate in calf. 5.0
b. Write down the mechanism of action, dose, indication and contraindication of oxiclozanide in cattle. 5.0

Q5. Write short notes on (any four): 2.5x 4 10
a. Anthelmintics b. Metronidazole c. Carbon tetrachloride d. Vermicides and vermifuges e. Benzimidazoles f. Anthemintic toxicity

Chittagong Veterinary and Animal Sciences University

Department of Physiology, Biochemistry and Pharmacology

M.S in Pharmacology

Subject: Pharmacology (VPHA-618)

Final Examination 2015

Total marks : 40 Time : 02 Hours

Answer the Following questions (any four):

1. **Define following (any five):** 5 x 2=10

   (a) Pharmacy (b) Metrology (c) Deplumation (d) Sublimation (e) Size reduction of solids (f) Labelling (g) Incompatibility (h) Tablet triturates (i) ISO-certification

2. (a) Factors that contribute to poor client compliance and factor that contribute to improved client compliance? 5

   (b) Prescription writing : for dehydration of a cat. 5

3. (a) What are the types of Dispensed Preparation? 2

   (b) How you prepare a liniment and Dextrose 10/1/V soln 4

   (c) Write down the common techniques in details for the preparation of syrup. 4

4. (a) What are the common laboratory animals? What are the basic equipments required in bloated tissue experiments. 3

   (b) How you will estimate oxyletracyclin in plasma by spcetro photometric methods. 4

   (c) What are the regulatory bodies to regulate all the regulatory meters related to drug food and cosmetics in BD. 3

5. (a) What are the residual effects of drugs in case of poultry,effects of drug use for human conjumption? Write down the process to evaluate residual effects of drug in case of poultry. 6

   (b) Define community pharmacy. Deseibe the plan of action to develop community pharmacy in Bangladesh. 4

END

July-December MS in Pharmacology Final Examination-2015
Department of Physiology, Biochemistry and Pharmacology
Faculty of Veterinary Medicine
Chittagong Veterinary and Animal Sciences University
Course Title: Toxicology of Pesticides
Course code: TOP-602; Total Marks: 40; Time: 2.00 hours

Answer any four (4) questions from the following:

Q1. a. Define and classify insecticides with examples. Write down the diagnosis and treatment of organo-phosphorus poisoning in dog. 5.0
b. Write down the factors involved with organo-chlorine poisoning. Write down the line of treatment of organo-chlorine poisoning in livestock. 5.0

Q2. a. Write down the mode of action, diagnosis and treatment of organo-carbamate poisoning in cattle. 5.0
b. Write down the mode of action, diagnosis and treatment of rotenone poisoning in rats. 5.0

Q3. a. Briefly describe the diagnosis and treatment of lead poisoning in cattle. 5.0
b. How will you diagnose and treat acute arsenic poisoning in livestock. 5.0

Q4. a. Briefly describe the possible treatment of sulfer and CO poisoning. 5.0
b. How will you diagnose and treat the ANTU and red squill poisoning in rats? 5.0

Q5. Write down the notes on (any four): 4x2.5 10

a. OPIDN b. DDT c. Honey bee sting d. Pyrithroids e. LD50 f. Warfarin

MS in Physiology July-December Final Examination 2015
Department of Physiology, Biochemistry and Pharmacology
Chittagong Veterinary and Animal Sciences University
Course Title: Wild Life Physiology (Theory)
Course Code: WPH-602
Full Marks: 40
Time: 2 hours

*Answer any 4 (**FOUR**) from the following questions*

1.	a)	Define Wild Life Physiology. Briefly outline the importance of studying Wild Life Physiology.	**4**
	b)	How do animal respond to changing environments?	**4**
	c)	Enlist the physical factors of the environment and animal adaptation.	**2**
2.	a)	Define mammals and classify them. Briefly describe the exceptional points in the physiology of wild mammals.	**4**
	b)	How does osmoregulation happen in marine air breathing vertebrates?	**4**
	c)	Enlist the digestive efficiencies of wild birds on different diets.	**2**
3.	a)	What are the special digestive adaptations in vertebrates?	**4**
	b)	Why amino acid uptake activities similar for all vertebrates?	**4**
	c)	Could trophic differences in transporter activity be due to differences in diet rather than genetic differences?	**2**
4.	a)	What are the respiratory peculiarities in turtle and tortoise?	**4**
	b)	What are the structures involved in osmoregulation?- Briefly describe.	**4**
	c)	What are the exceptions to general ectotherm responses in Tunas and sharks?	**2**
5.	a)	Describe the physiology of blue whale.	**4**
	b)	How does penguin respond to extreme cold?	**4**
	c)	What are the physiological peculiarities in leopard and camel?	**2**

MS in Physiology July-December Final Examination 2015
Department of Physiology, Biochemistry and Pharmacology
Chittagong Veterinary and Animal Sciences University
Course Title: Wild Life Physiology (Theory)
Course Code: WPH-602
Full Marks: 40
Time: 2 hours

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	b)	How does penguin respond to extreme cold?	**4**
	c)	What are the physiological peculiarities in leopard and camel?	**2**

MS in Physiology July-December Final Examination 2015
Department of Physiology, Biochemistry and Pharmacology
Chittagong Veterinary and Animal Sciences University
Course Title: Excretory Physiology and Acid-base Balance (Theory)
Course Code: EPA-602
Full Marks: 40
Time: 2 hours

*Answer any 4 (**FOUR**) from the following questions*

1.	a)	Define micturition. Illustrate the mechanism of micturition in dog.	**4**
	b)	Write down the role of kidney in hematopoesis and hypertension.	**3**
	c)	Define plasma threshold, GFR, Juxtaglomerular apparatus.	**3**
2.	a)	Write down the composition of expired and inspired air.	**3**
	b)	Define respiration. What are the steps involved in respiration.	**3**
	c)	Write down the mechanism of transport of carbon di oxide in blood.	**4**
3.	a)	Define hypoxia, cyanosis, atelectasis, RQ	**4**
	b)	What do you mean by peripheral chemoreceptor system? Explain the role of this system in respiration.	**3**
	c)	Sketch the mechanism of inspiration.	**3**
4.	a)	Differentiate sweat from sebum.	**3**
	b)	Explain the role of hormones in sebum production.	**4**
	c)	How does sweat and panting help in thermoregulation?	**3**
5.	a)	Define buffer, metabolic acidosis, metabolic alkalosis, pH	**4**
	b)	What are the role of GIT and lung in maintaining acid-base balance?	**3**
	c)	How do you will diagnose acidosis and alkalosis?	**3**

July-December MS in Pharmacology Final Examination-2015
Department of Physiology, Biochemistry and Pharmacology
Faculty of Veterinary Medicine
Chittagong Veterinary and Animal Sciences University
Course Title: Systemic Pharmacology; Course code: SPM-602
Total Marks: 40; Time: 2.00 hours

Answer any four (4) questions from the following:

Q1. a. Classify purgatives with examples. Write down the dose, mode of action, indication, contraindication of direct irritant purgatives in cattle. 5.0
b. Differentiate purgatives from laxatives? Write down the justification of use of antacids in pets. 5.0

Q2. a. Differentiate bronchodilators from expectorants. Write down the dose, mode of action, indication, contraindication of sulbutamol in dog. 5.0
b. Define and classify anti-tussive drugs. Write down the dose, mode of action, indication, contraindication of one of the expectorant in cat. 5.0

Q3. a. Define and classify diuretics with examples. How will you differentiate high efficacy diuretics from low efficacy? 5.0
b. What are the justifications of use of urinary acidifier, antiseptics and alkalizer in animal? 5.0

Q4. a. How will you differentiate glycosides from alkaloids? Write down the dose, mode of action, indication, contraindication of heart depressant in dog. 5.0
b. How will you differentiate heparin from heart warfarin? Write down the pharmacological action of adrenaline in animal. 5.0

Q5. Write short notes on (any four): 2.5x 4 10
a. Blood volume expander b. Nor-adrenaline c. Heart tonic d. Anticoagulants e. Thiazide
f. Hexamine

Chittagong Veterinary and Animal Sciences University

Department of Physiology, Biochemistry and Pharmacology

M.S in M.S in Pharmacology

Subject: Endocrine and Nutritional Pharmacology (602)

Final Examination 2015

Total marks : 40 Time : 02 Hours

Answer the Following questions (any four):

1. (a) Define Endocrine and Nutritional Pharmacology? Write down the physiological mechanisms linking reproduction in high producing dairy cows. 5
   (b) Define oestrus? Write down the procedure of estrus detection and methods of estrus control. 5
2. (a) Write down the reproduction parameters for dairy herds in tabular form. 5
   (b) Write down the determination of the stage of pragnency by RP. 5
3. (a) Mention the reproductive disorders and what is the proper lining of AI in cow. 5
   (b) How will you examine of the genital tract of bull. 5
4. (a) Made a feed formulation for a lactating cow. 5
   (b) What do you mean by production disease. Make a prescription for milk fever for a pregnant cow. 5
5. Write Sort Notes: (any five): 5 x 2 =10

   (a) Tom Cat (b) Unwanted Pregnancy (c) Embargo transfer (d) $PGF_2\alpha$ (e) Retantion of placenta f) Pyometra.

Chittagong Veterinary and Animal Sciences University
Department of Physiology, Biochemistry and Pharmacology

MS in Physiology Final Examination 2015

Semester: July-December

Course Title: Digestive Physiology and Bioenergetics (Theory)

Course Code: DPB-602

Total marks: 40, Time: 2 hours

(Figures in the right indicate full marks. Answer any FOUR (4) questions).

1	a.	What are the differences between avian and ruminant digestive system? Briefly describe the mechanical factors of digestion with emphasis on rumination.	3
	b.	List the name of digestive juices. Write down the composition and functions of saliva.	4
	c.	Define food and nutrition. Briefly discuss the regulation of gastric juice secretion.	3
2	a.	List the name of proteolytic enzymes associated with digestion. Sketch the digestive pathways of carbohydrate digestion in rumen.	4
	b.	Write down the role of protozoa in fermentative digestion. List the name of VFAs that are produced in the rumen.	3
	c.	Briefly describe the digestion of carbohydrate in dog.	3
3	a	What are the importances of saliva secretion in macromolecule digestion? Describe the composition, functions and regulations of intestinal juices.	4
	b	What are the sites of absorption of nutrient in animals? Describe the absorption of water and electrolytes.	4
	c	List the gastrointestinal enzymes with their sites of secretion and functions.	2
4	a	List the hormones of intestinal mucosa. How do bile acids emulsify fat?	3
	b	Do you think TCA cycle is the common metabolic pathway of major biomolecules? If yes, justify.	3
	c	What is the role of anaerobic glycolysis? How will you differentiate between EM pathways and HMP shunt?	4
5	a	Briefly describe the absorption of protein and fat in animals?	4
	b	List the fate of monosaccharide and amino acid after absorption.	3
	c	Write a short note about ruminal physiology.	3

Chittagong Veterinary and Animal Sciences University
Department of Physiology, Biochemistry and Pharmacology

MS in Physiology Final Examination 2015

Semester: July-December

Course Title: Integration Physiology (Theory)

Course Code: IPH-602

Total marks: 40, Time: 2 hours

(Figures in the right indicate full marks. Answer any FOUR (4) questions).

1	a.	Classify neurotransmitter. Write down the mechanism of release of neurotransmitter.	3
	b.	List the name of receptors. What are the relationships between endocrine and nervous system?	3
	c.	Write down the properties of neuron. How does nervous system propagate action potential?	4
2	a.	Write down the physiological properties of smooth muscle. What is the role of calcium on muscle contraction?	3
	b.	Briefly describe the mechanism of muscle contraction.	4
	c.	Write down the function of muscle. Write a short note on All or none law and muscle fatigue.	3
3	a	Why does synapse conduct impulse unidirectional? Write down the properties and functions of synapse.	3
	b	Write down the composition, functions and circulation of cerebrospinal fluid.	4
	c	State the functions of autonomic nervous system.	3
4	a	What are the importance and functions of taste? Explain taste discrimination.	3
	b	What are differences between melanin and melatonin? Write down the specific functions of skin.	3
	c	What is organ of corti? Write down the mechanism of hearing.	4
5	a	List the layers of retina. Describe the role of aqueous and vitreous humor in visualization. Differentiate between rod and cone cells.	4
	b	Define conditional reflex? State the possible combination of reflex arc.	3
	c	Write short note on a. Rhodopsin cycle b. Apocrine glands	3

Chittagong Veterinary and Animal Sciences University
Department of Physiology, Biochemistry and Pharmacology

MS in Physiology Final Examination 2015

Semester: July-December

Course Title: Concepts of Animal Welfare (Theory)

Course Code: CAW-602

Total marks: 40, Time: 2 hours

(Figures in the right indicate full marks. Answer any FOUR (4) questions).

1	a.	What is animal welfare? Briefly discuss the development of animal welfare education in Bangladesh.	3
	b.	How does veterinarians play their roles to improve animal welfare in Bangladesh	4
	c.	Briefly discuss the guidelines of OIE to develop animal welfare standards for its member countries	3
2	a.	What are the sign of heat stress of dairy cow? Discuss the relationship between hypothalamo-pituitary-adrenal axis and stress.	4
	b.	What are the ways of assessing welfare of animal? Write a short note about stress physiology.	3
	c.	What physiological changes occur during short and long term restraint of animals? How do these changes relate to animal welfare?	3
3	a.	Define legislation. Discuss four views about humanity's duties to animals.	4
	b.	What are the religious views on animal? Discuss animal welfare with respect to religion.	4
	c.	How does a human-animal relationships (HARs) improve dairy welfare at farm?	2
4	a.	Write a short note about euthanasia.	3
	b.	What is 3 Rs? List the species used in laboratories for animal experimentation? What is a humane end point in an experiment?	4
	c.	How do you control stray dog humanely in Bangladesh?	3
5	a.	Briefly discuss common animal welfare violations in Bangladesh	3
	b.	Define treaties, conventions, welfare code and community law. List five attributes of a model law.	3
	c.	Write a short note on a. animal welfare legislation c. physiological indicators of welfare	4

Chittagong Veterinary and Animal Sciences University

Department of Physiology, Biochemistry and Pharmacology

M.S in M.S in Pharmacology

Subject: Toxicology of Drug and Chemical Residue (TCD-602)

Final Examination 2015

Total marks : 40 Time : 02 Hours

Answer the Following questions (any four):

1. (a) Define drug safety and safety factors? Write down the equation of margin of safety? 10
2. (a) What are the uses of pesticide? How pesticide residue enter into the food chain? 5
   (b) What is the meaning of monitoring, Detection and risk analysis? Why drug disposition in neobern and adult animal are not same. 5
3. (a) what is FDA and MRL? Name two drugs which have been prohibited by FDA? 5
   (b) What do go mean by bio-monitoring? Write down the process of bio-monitoring. 5
4. (a) Define chemical toxicity. Write down the technique of detection of allergy? Give the NOAEL of tetracycline and sulfonamides. 5
   (b) Why hormones are used in farm animal and meat industry? How hormone detect from the body? 5

$2.5 \times 4 = 10$

5. Short Note:
   (a) TLC (b) Drug interaction (c) Metabonomics in drug toxicology (d) Adverse drug reaction in children.

END