

Department of Anatomy and Histology
Chittagong Veterinary and Animal Sciences University
MS in Anatomy
July-December Semester Final Exam'2016
Course Title: **Immunohistochemistry**
Course Code: IHC -602
Total marks: 40

Answer any 4 (four) questions from the followings:

1. a) What do you mean by immunohistochemistry? How do the stains produce in antibody-antigen interaction for visualization? 04
- b) Explain the general sample preparation techniques for immunohistochemical staining. 06
2. a) What do you mean by non-specific protein or reactive sites in immunohistochemical staining? How do you block reactive sites during staining? 05
- b) What are the immunohistochemical troubleshootings? How do you minimize the troubleshootings? 05
3. a) Draw and label a typical structure of antibody. 04
- b) List the common fixatives and staining reagents used in immunohistochemistry. 06
4. Explain the immunohistochemistry protocol for paraffin-embedded tissue sections. 10
5. Describe pretreatment and procedure of frozen tissue section in immunofluorescence staining protocol. 10

Department of Anatomy and Histology
Chittagong Veterinary and Animal Sciences University
MS in Anatomy
July-December Semester Final Exam' 2016
Course Title: **Molecular Biology**
Course Code: MBI -602
Total marks: 40

Answer any 4 (four) questions from the followings:

- | | | | |
|----|----|---|----|
| 1. | a) | Describe different types of junctional complex between epithelial cells. | 04 |
| | b) | Describe the ultra-structures of nucleus and golgi apparatus of a cell. | 06 |
| 2. | a) | Draw and label different phases of mitosis and differentiate it with meiosis. | 05 |
| | b) | Describe the double helix model of DNA with figure. | 05 |
| 3. | a) | List the macromolecules of the body. | 02 |
| | b) | Describe the roles of different mRNA in protein synthesis. | 08 |
| 4. | a) | What do you mean by gene and genome? | 02 |
| | b) | Write down the requirements and general procedures for extraction of DNA from animal blood. | 08 |
| 5. | a) | What is cell signaling? Give the classification of cell signaling. | 05 |
| | b) | Write a short note on G-protein couple receptor. | 05 |

Chittagong Veterinary and Animal Sciences University

Ms in Anatomy

July-December Semester, 2016

Subject: Evolutionary Anatomy

Full Marks-40

Code: EVA-602

Figures in the right margin indicate full marks. Answer any four questions:

1. a) What do you mean by Phylum? 2
- b) Describe the salient features of Subphyla Hemichordata and Urochordata. 8
2. Describe elaborately the Subphylum cephalochordata. 10
3. a) Enlist the Salient Characteristics of the Subphylum vertebrata. 2
- b) Describe the suborder Petromyzontia and draw and label one species under this suborder. 8
4. Describe the Sub class Holocephali and Elasmobranchii. 10
5. Write down the Phylogenetic scheme of Vertebrate evolution. 10