

**Chattogram Veterinary and Animal Sciences University**

**Department of Anatomy and Histology**

**MS in Anatomy (July-December) Final examination, 2023**

**Course Title: Evolutionary Anatomy (EVA-602)**

**Full Marks 40**

**Time 2 hours**

**Answer eight (8) questions from the followings.**

**Marks (5×8) =40**

- 1 What are the evolutionary changes recorded in the skin of vertebrate? Briefly describe these. **5**
- 2 “Mammalian skeletons got differences for environmental adaptation” Explain it. **5**
- 3 Write down the characteristics of mammals. **5**
- 4 “There is evolutionary relationship between reptiles and birds”. Justify the statement. **5**
- 5 Briefly describe the evolutionary stages of primate brain. **5**
- 6 Illustrate the origin and evolution of respiratory tract in vertebrate. **5**
- 7 What is the phylogenetic scheme of vertebrate evolution? **5**
- 8 Describe the evolutionary process of mammalian reproductive system. **5**
- 9 Illustrate the evolutionary changes in fore limb of mammals. **5**

Department of Anatomy and Histology  
Chattogram Veterinary and Animal Sciences University  
MS in Anatomy (July-December) Final 2023 Examination  
Course Title: Molecular Biology (Theory)  
Course code: MBI-602  
Full Marks: 40  
Time: 2 hours

Answer any eight (8) of the following questions

8X5= 40

1. What are the specific structures associated with protein synthesis, and how do these contribute to overall cellular activities?
2. Provide a concise overview of the translation mechanism in eukaryotic cells.
3. Investigate the role of Chromatin Structure in cellular activities.
4. Define G Protein–Coupled Receptors and elucidate their complex role in regulating cellular events.
5. Explain the significance of restriction endonucleases in gene cloning.
6. Elaborate on the importance of mitosis and meiosis in cell division concerning growth and sexual reproduction.
7. Explore the structures and functions of the four primary classes of biological macromolecules and their contributions to cellular processes.
8. Examine the role of ATP (adenosine triphosphate) in cellular bioenergetics, emphasizing its significance in energy transfer within the cell.
9. Break down the components of the extracellular matrix and discuss how they contribute to providing structural support to cells and tissues.
10. Provide a brief description of the various types of intercellular junctions and their functions in maintaining tissue integrity and facilitating communication between adjacent cells.