

**B.Sc. ZOOLOGY**  
**2<sup>ND</sup> SEMESTER**  
**CHORDATE DIVERSITY, COMPARATIVE ANATOMY & EVOLUTION**  
**BSZ-201(M)**

Duration: 3 Hrs.

Marks: 70

{ PART : A (OBJECTIVE) = 20 }  
{ PART : B (DESCRIPTIVE) = 50 }

[ PART-B : Descriptive ]

Duration: 2 Hrs. 40 Mins.

Marks: 50

[ Answer question no. One (1) & any four (4) from the rest ]

1. Write the general features of *Branchiostoma*. What are the three fundamental chordate characters? 7+3=10
2. Write note on the process of retrogressive metamorphosis. 10
3. Give a general account of Dipnoi and discuss their amphibian affinities. Draw a comparison between Chondrichthyes and Osteichthyes in a tabular form. 4+6=10
4. Describe the different types of skull found in Reptiles with suitable diagrams. 10
5. Describe the anatomical peculiarities of *Sphenodon* with justification of its systematic position. 10
6. What are marsupials? What are their chief differences from Eutheria? Give any two peculiar characters of Prototheria. 2+6+2=10
7. How do the birds navigate and orient during migration? What are the different types of migration found in birds? What are resident birds? 5+4+1=10
8. What is Neo-Darwinism? Explain the main elements of this theory? 3+7= 10



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**[ PART-A : Objective ]**

Choose the correct answer from the following:

1×20=20

1. Chordata characters disappear in the adult form of  
 a. *Herdmania*                      b. *Petromyzon*  
 c. *Myzine*                              d. None of the above
2. Which of the following is a feature of *Herdmania*  
 a. Notochord only in larval tail  
 b. Notochord in adult adult form  
 c. Notochord is absent  
 d. All of the above
3. Tunicates are  
 a. Hemichordata                      b. Cephalochordata  
 c. Urochordata                        d. None of the above
4. Amphioxus belongs to  
 a. Urochordata                        b. Cephalochordata  
 c. Vertebrata                          d. None of the above
5. Skull is present in  
 a. Vertebrata                          b. Cephalochordata  
 c. Urochordata                        d. None of the above
6. Acorn worms belong to Class  
 a. Enteropneusta                      b. Plactosphoroidea  
 c. Pterobranchia                      d. None of the above
7. Scales in Chondrichthyes are  
 a. Cosmoid                              b. Placoid  
 c. Ganoid                                d. Ctenoid
8. The function of crop is  
 a. To produce enzyme                b. To store food  
 c. To digest the food                 d. To absorb the food
9. Neotany is found in the larva of  
 a. *Hylarana*                            b. *Salamandra*  
 c. *Ichthyophis*                        d. *Necturus*

10. Persistence of larval characters is known as  
a. Neogenesis                              b. Paedogenesis  
c. Parthenogenesis                        d. Paedomorphosis
11. Copulatory organs are absent in  
a. Gecko                                      b. Sphenodon  
c. Snake                                      d. Tortoise
12. Skin of lizard contains  
a. Horny scales                            b. Horny scutes  
c. Plates                                      d. All the above
13. Interclavicle in reptile is  
a. H shaped                                b. W shaped  
c. T shaped                                d. A shaped
14. Embryonic membranes present in reptiles are  
a. Amnion and Chorion  
b. Chorion and yolk sac  
c. Yolk sac and allantois  
d. Amnion, chorion, yolk sac and allantois
15. Which of following is an elevator flight muscle in flying birds  
a. Pectoralis major  
b. Pectoralis minor  
c. Pronator muscles  
d. All of the above
16. Mammals which have true placenta are called  
a. Prototheria                              b. Metatheria  
c. Eutheria                                 d. None of the above
17. Diastema can be defined as  
a. Structure of mammalian eye  
b. Part of pelvic girdle  
c. Space in between the teeth due to absence of canine  
d. Type of teeth in mammals
18. Which of the following is the largest group of mammals  
a. Rodentia                                 b. Chiroptera  
c. Carnivora                                d. Insectivore
19. The moth studied in industrial melanism is  
a. Peppered Moth                         b. Black Moth  
c. Brown Moth                             d. Blue Moth



20. Along with Darwin, the theory of natural selection was also put forward by

- a. Wallace
- c. Lamarck

- b. Odum
- d. None of the above

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# UNIVERSITY OF SCIENCE & TECHNOLOGY, MEGHALAYA



## Question Paper CUM Answer Sheet

**[PART (A) : OBJECTIVE]**

Serial no. of the main  
Answer sheet

Course : .....

Semester : ..... Roll No : .....

Enrollment No : ..... Course code : .....

Course Title : .....

Session : ..... 2016-17 ..... Date : .....

### Instructions / Guidelines

- > The paper contains twenty (20) / ten (10) questions.
- > The student shall write the answer in the box where it is provided.
- > The student shall not overwrite / erase any answer and no mark shall be given for such act.
- > Hand over the question paper cum answer sheet (Objective) within the allotted time (20 minutes / 10 minutes) to the invigilator.

Full Marks	Marks Obtained	Remarks
20		

Scrutinizer's Signature

Examiner's Signature

Invigilator's Signature