

## Zoology (Hons.) Paper-II

*Answer five questions, selecting two questions from each Group, in which Q.No. 1 is compulsory.*

1. Select the correct answer of the following : **LNMUonline.com**
- (a) Zone of atmosphere near the ground is :  
(i) Troposphere      (ii) Stratosphere      (iii) Homosphere      (iv) All of these
  - (b) If there was no CO<sub>2</sub> in the Earth's atmosphere, temperature of the Earth's surface would be :  
(i) Same as the present      (ii) Less than the present  
(iii) Higher than the present  
(iv) Depends on the amount of O<sub>2</sub> in the atmosphere
  - (c) Ultra-violet radiation from Sunlight causes a reaction which produces :  
(i) CO      (ii) CH<sub>4</sub>      (iii) O<sub>3</sub>      (iv) SO<sub>2</sub>
  - (d) Which belongs to the categories of primary consumers ?  
(i) Eagle and Snakes      (ii) Insects and Cattle      (iii) Water insects      (iv) Snakes and Frogs
  - (e) The most abundant element present in the plants is :  
(i) Nitrogen      (ii) Magnesium      (iii) Iron      (iv) Carbon
  - (f) The communities of primary succession are called as :  
(i) Mesosere      (ii) Pioneersere      (iii) Subsere      (iv) None of these
  - (g) A lake with rich nutrients is called :  
(i) Oligotrophic      (ii) Eutrophic      (iii) Trophic      (iv) Euphotic
  - (h) Which of the following is not a pollutant ?  
(i) SO<sub>2</sub>      (ii) CO<sub>2</sub>      (iii) CO      (iv) NO<sub>2</sub>
  - (i) Ecosystem has two components :  
(i) Weeds and Trees      (ii) Frog and Man  
(iii) Plants and animals      (iv) Biotic and Abiotic
  - (j) One field in which Zoology and Geology are closely connected :  
(i) Archeology      (ii) Zoogeography      (iii) Palaeontology      (iv) Morphology
  - (k) An era as "Age of Birds and Mammals" is :  
(i) Mesozoic      (ii) Palaeozoic      (iii) Coenozoic      (iv) Cretaceous
  - (l) Who gave the theory of Pangenesis ?  
(i) Mendel      (ii) Darwin      (iii) Hugo de Vries      (iv) Correns
  - (m) What is the ultimate source of Organic Evolution ?  
(i) Sexual Selection      (ii) Natural Selection      (iii) Mutation  
(iv) Inheritance of acquired characters
  - (n) The theory of 'use and disuse' of Evolution was given by :  
(i) Darwin      (ii) Weismann      (iii) Hugo de Vries      (iv) Lamarck
  - (o) Closest relative of man is :  
(i) Neanderthal man      (ii) Peking man      (iii) Java man      (iv) Cromagnon man

### **Group-A**

- 2. What is Ecosystem ? Describe the structure and functions of various components of Typical Ecosystem.
- 3. What do you understand by biosphere ? Give a detailed account of atmosphere and its effects on life.
- 4. Define Meditation and Yoga. What are their effects on life ? **LNMUonline.com**
- 5. Define Toxicology and give a brief description on application of Toxicology.  
Or, Write notes on any three of the following : (a) Global warming (b) Ecological niche (c) Tiger project (d) Language of honey bee (e) Nitrogen cycle (f) Noise pollution

### **Group-B**

- 6. What is Organic Evolution ? Discuss various evidences supporting organic evolution.
- 7. What is Darwinism ? Describe its role in Organic Evolution.
- 8. What is mutation ? Describe the different types of mutations and their role in Evolution.
- 9. Give an account of different isolating mechanisms and their role in evolution.  
Or, Give a brief description on Oparin's concept of origin of life.