



**FEDERAL PUBLIC SERVICE COMMISSION**  
**COMPETITIVE EXAMINATION FOR**  
**RECRUITMENT TO POSTS IN BS-17**  
**UNDER THE FEDERAL GOVERNMENT, 2014**  
**ZOOLOGY, PAPER-II**

Roll Number

|                      |                      |                                 |                          |
|----------------------|----------------------|---------------------------------|--------------------------|
| <b>TIME ALLOWED:</b> | <b>(PART-I MCQs)</b> | <b>30 MINUTES</b>               | <b>MAXIMUM MARKS: 20</b> |
| <b>THREE HOURS</b>   | <b>(PART-II)</b>     | <b>2 HOURS &amp; 30 MINUTES</b> | <b>MAXIMUM MARKS: 80</b> |

- NOTE:**(i) **Part-II** is to be attempted on the separate **Answer Book**.  
(ii) Attempt **ONLY FOUR** questions from **PART-II**, selecting **TWO** questions from each Section. **ALL questions carry EQUAL marks.**  
(iii) Candidate must write **Q. No.** in the **Answer Book** in accordance with **Q. No.** in the **Q. Paper**.  
(iv) No Page/Space be left blank between the answers. All the blank pages of Answer Book must be crossed.  
(v) Extra attempt of any question or any part of the attempted question will not be considered.

**PART-II**

**SECTION-I**

- Q. No. 2.** (a) Describe in detail the process of fat absorption in the small intestine. **(10 each) (20)**  
(b) Name and describe the major roles of the hormones secreted by Anterior and Posterior Pituitary glands.
- Q. No. 3.** (a) Describe the structure and Function of Mitochondria. **(10 each) (20)**  
(b) Discuss the Fluid Mosaic Model of cell membrane.
- Q. No. 4.** (a) Explain the law of Independent Assortment with the help of suitable examples.  
(b) Write a note on Genetic Engineering. **(10 each) (20)**
- Q. No. 5.** (a) Explain the composition and important roles of plasma in the human body. **(10 each) (20)**  
(b) Discuss the physiology of glomerular filtration and composition of the glomerular filtrate.

**SECTION-II**

- Q. No. 6.** Write an essay on sources of environmental pollution and their impacts on biodiversity and human health. **(20)**
- Q. No. 7.** (a) Elaborate the modern concept of natural selection with suitable examples. **(10 each) (20)**  
(b) Discuss the Lamarck's theory of Evolution.
- Q. No. 8.** Describe the physiologic anatomy of synapse. Discuss also special characteristics of synaptic transmission. **(20)**

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