



**FEDERAL PUBLIC SERVICE COMMISSION**  
**COMPETITIVE EXAMINATION-2019**  
**FOR RECRUITMENT TO POSTS IN BS-17**  
**UNDER THE FEDERAL GOVERNMENT**

Roll Number

**ZOOLOGY**

<b>TIME ALLOWED: THREE HOURS</b>	<b>PART-I (MCQS)</b>	<b>MAXIMUM MARKS = 20</b>
<b>PART-I(MCQS): MAXIMUM 30 MINUTES</b>	<b>PART-II</b>	<b>MAXIMUM MARKS = 80</b>
<b>NOTE: (i) Part-II is to be attempted on the separate Answer Book.</b>		
<b>(ii) Attempt ONLY FOUR questions from PART-II. ALL questions carry EQUAL marks.</b>		
<b>(iii) All the parts (if any) of each Question must be attempted at one place instead of at different places.</b>		
<b>(iv) Write Q. No. in the Answer Book in accordance with Q. No. in the Q.Paper.</b>		
<b>(v) No Page/Space be left blank between the answers. All the blank pages of Answer Book must be crossed.</b>		
<b>(vi) Extra attempt of any question or any part of the question will not be considered.</b>		

**PART – II**

- Q. No. 2.** Discuss emerging vector-borne zoonotic diseases of public health importance. Describe the impact of climate change on vector-borne diseases. **(20)**
- Q. No. 3.** How the members of Chordates are different from Hemichordates? Name five hallmarks shared by all chordates and describe functions of each. **(20)**
- Q. No. 4.** What is the difference between bird's migration and navigation? Discuss navigational resources used by different bird species in long distance migration. **(20)**
- Q. No. 5.** How gene mutation differ from chromosomal aberration? Discuss the type(s) of mutation responsible for new variation of a trait. **(20)**
- Q. No. 6.** Discuss sexual and asexual reproduction in protozoa. Explain parthenogenesis. **(20)**
- Q. No. 7.** Describe Fluid-Mosaic Model of the plasma membrane. What are different types of movements across the plasma membrane? **(20)**
- Q. No. 8.** Discuss the structure and functions of different types of neurons. Describe general pathway for the flow of information within the nervous system. **(20)**

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