

# FEDERAL PUBLIC SERVICE COMMISSION



## COMPETITIVE EXAMINATION FOR RECRUITMENT TO POSTS IN BS-17 UNDER THE FEDERAL GOVERNMENT, 2012

Roll Number

### ZOOLOGY, PAPER-I

<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>
<b>NOTE:</b> (i) Candidate must write <b>Q.No.</b> in the <b>Answer Book</b> in accordance with <b>Q.No.</b> in the <b>Q.Paper</b> . (ii) Attempt <b>ONLY FOUR</b> questions from <b>PART-II</b> , selecting <b>TWO</b> questions from <b>EACH SECTION</b> . All questions carry <b>EQUAL</b> marks. (iii) Extra attempt of any question or any part of the attempted question will not be considered.			

### PART-II

#### SECTION-I

- Q.2** (a) Define parasitism. What are parasitic adaptations in platyhelminthes? (10)  
(b) Discuss water circulating pathways in (i) an ascon sponge (ii) Sycon Sponge (10)  
(iii) Lencon sponge. Illustrate answer with diagrams.
- Q.3** (a) Describe parasitism in Protozoa. (10)  
(b) What are corals and coral reefs? What are different types of coral reefs? Discuss. Give suitable diagrams. (10)
- Q.4** (a) Describe feeding in bivalves and mechanism of food movement in cephalopoda digestive tract. Does it differ (cephalopod) from other molluscs. (10)  
(b) Give an account of appendages and body divisions in crayfish. Give suitable diagrams. (10)

#### SECTION-II

- Q.5** (a) What are the variations in vertebrae in fishes, amphibians, reptiles, birds and mammals? Give diagrams. (10)  
(b) Describe pronephros, mesonephros and metanephros kidneys in vertebrates. Illustrate answer with diagrams. (10)
- Q.6** (a) Discuss with suitable diagrams Amniote aortic arches. (10)  
(b) Give description of primitive vertebrate heart and its diagram. (10)
- Q.7** (a) Describe Reflex arc and its action in mammalian spinal cord. Give diagrams. (10)  
(b) Give Brief comparative account of structure of brain in fish, Amphibia, reptiles, birds and mammals. Give suitable diagrams. (10)
- Q.8** (a) Give a brief account of biting mechanism in snake. Give suitable diagram. (10)  
(b) Illustrate answer with diagrams giving an account of different types of vertebrate eggs. (10)

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