



**FEDERAL PUBLIC SERVICE COMMISSION**  
**COMPETITIVE EXAMINATION FOR**  
**RECRUITMENT TO POSTS IN BS-17**  
**UNDER THE FEDERAL GOVERNMENT, 2015**

Roll Number

**BOTANY, PAPER-II**

<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) Candidate must 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 attempted question will not be considered.</b>		

**PART-II**

- Q. No. 2.** What is salinity? How it affects plants? How can we deal with this problem? **(20)**
- Q. No. 3.** Write a comprehensive note on speciation process with examples. **(20)**
- Q. No. 4.** What are transgenic plants? How are they produced? Give some examples of transgenic crops. **(20)**
- Q. No. 5.** Describe translation process during gene expression in detail with diagrams. **(20)**
- Q. No. 6.** Write an essay on the main plant hormones and their role in plant growth and development. **(20)**
- Q. No. 7.** Describe in detail the structure and function of the biological membranes in a plant cell. **(20)**
- Q. No. 8.** Write short notes on: **(10 each) (20)**
- (a)** Transpiration **(b)** Vernalization

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