



**FEDERAL PUBLIC SERVICE COMMISSION**  
**COMPETITIVE EXAMINATION-2021**  
**FOR RECRUITMENT TO POSTS IN BS-17**  
**UNDER THE FEDERAL GOVERNMENT**

Roll Number

**BOTANY**

<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.** Cynophyta (Blue green algae) is a main group of algae. What is the economic importance of this particular group in food and hunger? Illustrate your answer with examples? **(20)**
- Q. No. 3.** What are the physiological roles of Cytokinins and Absciscic Acid in plant growth? **(20)**
- Q. No. 4.** What is the specificity of enzyme action? Explain it with reference to the important enzyme "Ribulose-1, 5-Bisphosphate Carboxylase-Oxygenase" (RuBisCO). **(20)**
- Q. No. 5.** Differentiate between Vascular cambium and Cork cambium. Describe their role in secondary growth. **(20)**
- Q. No. 6.** Write a note on cell senescence and cell death. **(20)**
- Q. No. 7.** How are Gametophyte and Sporophyte evolved in Bryophytes? **(20)**
- Q. No. 8.** Write a note on any **TWO** of the followings: **(10 each) (20)**
- (a)** Hardy – Weinberg's Law
  - (b)** Evidences of Evolution
  - (c)** Theory of Natural Selection

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