



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

**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 Abscisic 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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