



**FEDERAL PUBLIC SERVICE COMMISSION
COMPETITIVE EXAMINATION-2017
FOR RECRUITMENT TO POSTS IN BS-17
UNDER THE FEDERAL GOVERNMENT**

Roll Number

BOTANY

TIME ALLOWED: THREE HOURS PART-I(MCQS): MAXIMUM 30 MINUTES	PART-I (MCQS) PART-II	MAXIMUM MARKS = 20 MAXIMUM MARKS = 80
NOTE: (i) Part-II is to be attempted on the separate Answer Book. (ii) Attempt ONLY FOUR questions from PART-II. ALL questions carry EQUAL marks. (iii) All the parts (if any) of each Question must be attempted at one place instead of at different places. (iv) Candidate must 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 attempted question will not be considered.		

PART-II

- Q. No. 2.** Describe briefly habitat, structure, reproduction and life cycle of adiantum. **(20)**
- Q. No. 3.** Discuss evolution of seed and its importance in vascular plants. **(20)**
- Q. No. 4.** Why is Darwin's theory of evolution still so controversial? Explain. **(20)**
- Q. No. 5.** How does the C₄ pathway differ from C₃ pathway of carbon fixation? What are the advantages and disadvantage of each pathway? **(20)**
- Q. No. 6.** How did the discovery that the DNA molecule is helical with uniform 2-nm diameter lead Watson and crick to propose the pairing rules for double-helix model? Explain. **(20)**
- Q. No. 7.** Describe causes and reclamation of soil salinity and water logging in Pakistan. **(20)**
- Q. No. 8.** Write short notes on any FOUR of the following: **(5 each) (20)**
- (a) Forensic Palynology.
 - (b) Chemo taxonomy.
 - (c) Imperfect Fungi.
 - (d) Chromosomal aberrations.
 - (e) Economic importance of Acacia Family.
