



**FEDERAL PUBLIC SERVICE COMMISSION
COMPETITIVE EXAMINATION-2022
FOR RECRUITMENT TO POSTS IN BS-17
UNDER THE FEDERAL GOVERNMENT**

Roll Number

BOTANY

TIME ALLOWED: THREE HOURS	PART-I (MCQS)	MAXIMUM MARKS = 20
PART-I(MCQS): MAXIMUM 30 MINUTES	PART-II	MAXIMUM MARKS = 80
<p>NOTE: (i) Part-II is to be attempted on the separate Answer Book.</p> <p>(ii) Attempt ONLY FOUR questions from PART-II. ALL questions carry EQUAL marks.</p> <p>(iii) All the parts (if any) of each Question must be attempted at one place instead of at different places.</p> <p>(iv) Write Q. No. in the Answer Book in accordance with Q. No. in the Q.Paper.</p> <p>(v) No Page/Space be left blank between the answers. All the blank pages of Answer Book must be crossed.</p> <p>(vi) Extra attempt of any question or any part of the question will not be considered.</p>		

PART-II

- Q. No. 2.** Explain different types of algae based on cell structure, nature of the pigments and the types of reserve food materials. **(20)**
- Q. No. 3.** Discuss the economic importance and distribution of gymnosperms in Pakistan. **(20)**
- Q. No. 4.** Describe the pollination mechanisms in angiosperms. **(20)**
- Q. No. 5.** Shed light on the important rules of botanical nomenclature. **(20)**
- Q. No. 6.** Explain the role of different plant hormones from seed germination to fruit ripening. **(20)**
- Q. No. 7.** What are the adverse effects and control measures of aquatic and terrestrial pollution? Explain. **(20)**
- Q. No. 8.** Write notes on any **TWO** of the followings: **(10 each) (20)**
- (a)** Causes and mechanism of cell senescence
 - (b)** Importance of genetic engineering
 - (c)** Divergent Evolution
