



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

Roll Number

BOTANY, PAPER-I

TIME ALLOWED: THREE HOURS	PART-I (MCQS)	MAXIMUM MARKS = 20
PART-I(MCQS): MAXIMUM 30 MINUTES	PART-II	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.** Explain the biological and economic importance of algae. **(20)**
- Q. No. 3.** Give the symptoms and development of stem rust of wheat. Also mention the measures to control the disease. **(20)**
- Q. No. 4.** Explain characteristic features of gametophyte and sporophyte generations in Bryophytes. **(20)**
- Q. No. 5.** Describe the life cycle of genus Pinus. **(20)**
- Q. No. 6.** What are Pteridophytes, explain their characteristic features, their habitat, and alternation of generation? **(20)**
- Q. No. 7.** Explain the Anatomy of epidermis and cortex of root in higher plants. **(20)**
- Q. No. 8.** Write down a comprehensive note on any **TWO** of the followings: **(10 each) (20)**
- (a) Chemotaxonomy.
- (b) Engler and Prantel System of Classification.
- (c) Differences in vascular system of stem of monocot and dicot plants.



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BOTANY, PAPER-II

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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
