

FEDERAL PUBLIC SERVICE COMMISSION

COMPETITIVE EXAMINATION FOR RECRUITMENT TO POSTS
IN PBS-17, UNDER THE FEDERAL GOVERNMENT, 2002

AGRICULTURE

TIME ALLOWED: THREE HOURS **MAXIMUM MARKS: 100**

NOTE: Attempt FIVE questions in all, including QUESTION NO. 8 which is **COMPULSORY**. All questions carry **EQUAL** marks.

1. In terms of research and newer technologies in current and future agriculture in Pakistan, how do you comment on the statement? "The basic texture of research consists of dreams into which the threads of reasoning, measurements and calculations are woven".
2. What are the functions of water in soil and plants? How water stress affect the plant growth and development?
3. Define growth. Enlist and briefly describe the factors affecting it.
4. Briefly discuss the major problems and possible solutions for increasing productivity of horticultural crops.
5. Discuss methods of pest control and pathogen effect on plant physiological functions.
6. Write short notes on any FOUR of the followings:
 - (a) Soil texture and structure and their management.
 - (b) Application of genetics for improvement of crops.
 - (c) Conducting tissues of carbohydrates, water and minerals
 - (d) Photoperiodic and thermo periodic responses of crop plants.
 - (e) Components of agriculture integrated system.
 - (f) Role of agriculture in the national economy.
7. Differentiate between the followings:
 - (a) Genotype and phenotype.
 - (b) Transpiration and Evapotranspiration.
 - (c) Alley cropping and strip planting.
 - (d) Determinate and Indeterminate plant species.
 - (e) Photosynthesis and phototropism.

COMPULSORY QUESTION

8. Give only appropriate response in the answer book. Do not reproduce the question.
 - (A) Choose the correct option from the given choices.

1	The agriculture of Pakistan is characterized by:			
	(a) Two main cropping seasons	(b) Three main cropping seasons		
	(c) Four main cropping seasons	(d) None of these.		
2	The soil Survey of Pakistan has identified classes of land under a system of land capability classes:			
	(a) Six classes	(b) Seven classes		
	(c) Eight classes	(d) Nine classes		
	(e) None of these.			

AGRICULTURE

3	Highest nutrient concentration causes a phenomenon in plant growth known as:			
	(a) Adequacy	(b) Deficiency		
	(c) Toxicity	(d) None of these.		
4	KATJA is cultivar of:			
	(a) Banana	(b) Mango		
	(c) Citrus	(d) Apple		
	(e) None of these.			
5	Pome fruits include:			
	(a) Apple	(b) Pear		
	(c) Quince	(d) All of these.		
	(e) None of (a), (b) and (c)			
6	Zizypus jujuba is the botanical name of:			
	(a) Berseem	(b) Maize		
	(c) Rice	(d) Wheat		
	(e) None of these.			
7	Osmite is a chemical used for control of:			
	(a) Virus	(b) Bacteria		
	(c) Fungus	(d) Mite		
	(e) None of these.			
8	Wheat is placed in:			
	(a) Legumes	(b) Cereals		
	(c) Fiber	(d) All of these.		
	(e) None of the (a), (b) and (c).			
9	Nili is a breed of:			
	(a) Cow	(b) Buffalo		
	(c) Goat	(d) None of these.		
10	Essential elements required for plant growth are:			
	(a) 10	(b) 12		
	(c) 14	(d) 16		
	(e) None of these.			

(B) Fill in the blanks:

11	The science of fruit production is called
12	<i>Scriptothrips citri</i> is a pest attacking
13	Rearing of silk worm is known as
14	<i>Mangifera indica</i> is the botanical name of
15	NAR stands for
16	Copying of m RNA into protein is termed as
17	IBPGR stands for
18	Unit of the material of inheritance is known as
19	IUCN stands for
20	IFAD stands for
