

**FEDERAL PUBLIC SERVICE COMMISSION**  
**COMPETITIVE EXAMINATION FOR**  
**RECRUITMENT TO POSTS IN BS-17**  
**UNDER THE FEDERAL GOVERNMENT, 2013**

**AGRICULTURE**

Part I: Time Allowed: 30 Minutes Maximum Marks: 20

Part II: Time Allowed: 2 Hours & 30 Minutes Maximum Marks: 80

---

- Note: (i) First attempt Part-I (MCQs) on separate OMR Answer Sheet which shall be taken back after 30 minutes.**
- (ii) Overwriting/cutting of the options/answers will not be given credit.

**PART-I (MCQs) (COMPULSORY)**

**Q.1.(i) Select the best option/answer and fill in the appropriate Circle on the OMR Answer Sheet.**

**(ii) Answers given anywhere, other than OMR Answer Sheet, shall not be considered.**

1. **Ratio of additive variance to phenotypic variance is called:**
  - (a) Heritability (Broad sense)
  - (b) Heritability (Narrow sense)
  - (c) Co-heritability
  - (d) Gene action
  - (e) None of these
2. **Inflorescence of wheat plant is called:**
  - (a) Spike
  - (b) Panicle
  - (c) Arrow
  - (d) Cob
  - (e) None of these
3. **A nullisomic individual is represented by:**
  - (a)  $2n-1$
  - (b)  $2n+1$
  - (c)  $2n-2$
  - (d)  $2n+2$
  - (e) None of these
4. **Ribosomes are the sites of:**
  - (a) Fat synthesis
  - (b) Protein synthesis
  - (c) Photosynthesis
  - (d) Anaerobic respiration
  - (e) None of these
5. **Type of sugar present in DNA is:**
  - (a) Pentose
  - (b) Hexose
  - (c) Heptose
  - (d) Triose
  - (e) None of these

6. **Maize has 10 pairs of chromosomes. How many linkage groups will be present in maize if all the genes are mapped?**  
(a) 10 (b) 20  
(c) 40 (d) 15  
(e) None of these
7. **Ph of Urea fertilizer is:**  
(a) 4.00 (b) 3.5  
(c) 8.0 (d) 7.0  
(e) None of these
8. **According to 1972 Land Reforms the ceiling of land was:**  
(a) 1000 acres irrigated and 2000 acres barani land  
(b) 500 acres irrigated and 1000 acres barani land  
(c) 250 acres irrigated and 500 acres barani land  
(d) 150 acres irrigated and 300 acres barani land  
(e) None of these
9. **Which type of soil holds more water?**  
(a) Sandy (b) Stony  
(c) Clayey (d) Silty  
(e) None of these
10. **Hydrosphere refers to:**  
(a) Zone of water (b) Zone of earth crust  
(c) Zone of atmosphere (d) Zone of air  
(e) None of these
11. **Which compound is mostly used in Pakistan for the reclamation of saline- sodic and Sodic soils?**  
(a) Apartite (b) Calcite  
(c) Dolomite (d) Gypsum  
(e) None of these
12. **Carrot, Radish, Cabbage and beet are:**  
(a) Annual (b) Biennial  
(c) Perennial (d) Woody perennial  
(e) None of these
13. **Which one of the following is not a fruit?**  
(a) Tomato (b) Potato  
(c) Musk-melon (d) Water-melon  
(e) None of these
14. **The body of a sheep is covered with specialized fibers known as:**  
(a) Hairs (b) Fleece  
(c) Wool (d) Fuz  
(e) None of these
15. **Bovine is a term used for:**  
(a) Cattle (b) Buffalo

- (c) Sheep (d) Goat  
(e) None of these
16. The act of giving birth to young ones in animals is called:  
(a) Ovulation (b) Fertilization  
(c) Parturition (d) Conception  
(e) None of these
17. The type of mouth parts of the Grass-hopper are:  
(a) Chewing (b) Sucking  
(c) Piercing and sucking (d) Biting and sponging  
(e) None of these
18. Bacteria reproduce asexually by means of:  
(a) Fragmentation (b) Budding  
(c) Binary fission (d) Multiplication  
(e) None of these
19. All goods and services produced in a country in one year are called:  
(a) GNP (b) GDP  
(c) NDP (d) NNP  
(e) None of these
20. Uniform removal of soil in thin layer from sloping land is called:  
(a) Sheet erosion (b) Rill erosion  
(c) Gully erosion (d) Stream channel erosion  
(e) None of these

### (PART-II)

- Note:** (i) Part-II is to be attempted on the separate Answer Book.  
(ii) Candidate must write Q. No. in the Answer Book in accordance with Q. No. in the Q. Paper.  
(iii) Attempt ONLY FOUR questions from PART-II. ALL questions carry EQUAL marks.  
(iv) Extra attempt of any question or any part of the attempted question will not be considered.
- Q.2. What are the sources of irrigation water in Pakistan? Explain different methods of irrigation to agricultural crops.
- Q.3. Write a detailed note on the prospects of Farm Mechanization in Pakistan.
- Q.4. Explain the process of Biological Nitrogen Fixation. Discuss the factors which affect this process.
- Q.5. What is Hybrid Vigour? Explain the procedure of developing a hybrid corn.
- Q.6. Explain the process of Protein synthesis in the plant cell.

- Q.7.** What are the major insects, pests and diseases of Cotton crop in Pakistan? Suggest and explain an economical strategy to be adopted by the farmers to minimise the losses due to these menaces.
- Q.8.** Write short notes on any **FOUR** of the following.
- (i) Land Tenure System in Pakistan.
  - (ii) Status of Horticulture in Pakistan.
  - (iii) Water logging and Salinity in Pakistan.
  - (iv) Role of Organic Matter in the soil.
  - (v) Livestock as an important component of Agriculture in Pakistan.
  - (vi) Agro-forestry.