

## Kushmanda Online/Offline Test Series for HCS Main Exam 2017

“Main Exam का positive result केवल उस स्टूडेंट का होता है जो उस सवाल (HPSC/UPSC में पूछा गया सवाल) के जवाब को एक बार पहले ही लिखकर किसी सही मार्गदर्शक(Experienced Teacher) से करेक्ट करा चुका है”  
Abhi Sir

### AGRICULTURE

#### Part-I

**TEST 1:** Concepts of multiple cropping, multistorey, relay and inter-cropping, and their importance in relation to food production. Package of practices for production of important cereals, pulses, oil seeds, fibres, sugar, commercial and fodder crops grown during Kharif and Rabi seasons in different regions of the country.

Extension, social forestry and agro-forestry. Second generation problems of green revolution and approaches to solve these problems. Diversification and value addition in agricultural crops. W.T.O. and its impact on Indian agriculture. Sustainable agriculture.

**TEST 2:**Weeds, their characteristics, dissemination and association with various crops; their multiplications;cultural, biological and chemical control of weeds. Zero tillage. Dryland agriculture and its problems. Technology for stabilising agriculture production in rainfed agriculture area. Water-use efficiency in relation to crop production, criteria for scheduling irrigations, ways and means of reducing run-off losses of irrigation water. Methods of irrigation and drainage.Drip and sprinkler irrigation. Drainage of water-logged soils. Soil-water-plant relationship.

**TEST 3:** Types of soils in India. Soil as medium of plant growth and its composition. Mineral and organic constituents of the soil and their role in maintaining soil productivity. Chemical, physical and microbiological properties of soil. Soil colloids. Essential plant nutrients (macro and micro) and their functions. Deficiency symptoms of plant nutrients. Mechanism of nutrient absorption. Problem soils –distribution and their reclamation. Principles of soil fertility. Organic manures and bio-fertilizers. Inorganic fertilizers (straight,complex and mixed). Integrated nutrient management. Losses of nitrogen in soil, nitrogen-use efficiency in submerged rice soils, nitrogen fixation in soils. Fixation of P and K in soil and scope for their efficient use.

Principles of economics as applied to agriculture. Farm management–scope, importance, characteristics. Farm planning and budgeting. Types and systems of farming and factors effecting them. Farm mechanization. Social marketing.

Philosophy, objectives, scope and principles of extension. Early extension efforts in India. Methods of communication. Evaluation of extension programmes. CD programmes. On farm testing and frontline demonstration.

## **Part-II**

**Test 4:** Cell division. Nucleic acids–structure and function. Gene and chromosome. Laws of heredity, their significance in plant breeding. Chromosomal theory of inheritance. Cytoplasmic inheritance. Qualitative and quantitative characters.

**Test 5:** Modes of reproduction. Selfing and crossing techniques. Application of principles of plant breeding to the improvement of major field crops. Methods of breeding of self and cross pollinated crops and vegetatively propagated crops. Plant introduction. Pureline selection and mass selection. Handling of hybrid populations– bulk, pedigree, backcross and single seed descent method. Hybrid vigour and its exploitation. Heterosis breeding. Male sterility and self incompatibility. Composites, synthetics and multiline varieties . Top cross and polycross. Apomixis. Clonal selections. Tissue culture. Interspecific and intergeneric hybridization. Breeding for disease resistance. Role of mutation and polyploidy in plant breeding. Seed production and certification.

**Test 6:** Physiology and its significance in agriculture. Absorption and translocation of water, transpiration. Photosynthesis–modern concepts and factors affecting the process. Aerobic and anaerobic respiration. C3 ,C4,and CAM mechanisms. Photoperiodism and vernalization. Auxins, hormones and other plant regulators and importance in agriculture. Dormancy.

**Test 7:** Climatic requirements and cultivation of major fruits plants, vegetable crops and flower plants; their package of practices with scientific basis. Post harvest handling and marketing problems of fruits, flowers and vegetables. Preservation of important fruits and vegetable products.Role of fruits and vegetables in human nutrition.

**Test 8 :** Diseases and pests of fields, vegetables and fruit crops of India and measures to control them. Causes and classification of plant diseases. Principles of plant disease control. Biological control of pests and diseases. Integrated pest and disease management. Storage pests of cereals and pulses, and their management.

## **9.FULL TEST**

## **10.FULL TEST**

## **11.FULL TEST**

12.FULL TEST

13.FULL TEST

14.FULL TEST

15. FULL TEST

## Methodology for evaluation of Answer sheet

### 1.Content of the answer:

(a)Proper visibility of idea through facts, data, diagram, figure, illustration according to the requirement of the question:

(b) Originality of thought and expression:

### 2.Language:

(a)Choice of words and proper statement:

(b)Handwriting:

(c) Grammatical correctness of expression:

### 3.Focus on Key words & Tail words effectively :

Elucidate - Explain, Comment, Examine, Critically examine, Discuss, Analyze, Illustrate, Review, Argue, Justify etc:

### 4:Structure :

(a)Introduction :

(b)Ability to compose a well-argued piece of writing:

(c)Ability to express coherently and sequentially:

(d)Conclusion :

**Treat this test series as Most Probable Questions for Upcoming HCS Main Exam .**

**KUSHMANDA IAS HCS ACADEMY(REGD)**  
**OPP IB COLLEGE,GT ROAD,IND FLOOR,RJ TOWER**  
**PANIPAT,HELPLINE:8607570992,9728926678**  
**Kushmanda Education Services Pvt Ltd**  
**100,C Block TDI City,Panipat [www.kushmanda.com](http://www.kushmanda.com)**

### **To improve your scores in HCS Mains – 2017-18:**

1. Give all tests **by preparing well**.
2. Revise each test on the same day.
3. **Revise all synopses at least 2-3 times** before Mains.
4. Give all tests in **exam like situation**.
5. There are 15 Tests .
6. Nature of Questions: **Based on HPSC Pattern**
7. **Synopsis** will be provided for all tests .
8. For any test, synopsis will be uploaded after **1-2-3 days** (depending on length of each test)
9. **Flexible timings** for Classroom & Online Students
10. Copy correction strictly **by faculty only**

**Score: Scale: 1- 5** 5 – Outstanding      4 – Excellent      3 – Good      2 – Average  
1 - Poor

**Fees:** Rs. 6000/- (+ GST)