

**CLASS : 12th (Sr. Secondary)**

**3677/3627**

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**MARKING INSTRUCTIONS AND MODEL ANSWERS**

**AGRICULTURE**

**ACADEMIC/OPEN**

(Only for Fresh/Re-appear Candidates)

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उप-परीक्षक मूल्यांकन निर्देशों का ध्यानपूर्वक अवलोकन करके उत्तर-पुस्तिकाओं का मूल्यांकन करें। यदि परीक्षार्थी ने प्रश्न पूर्ण व सही हल किया है तो उसके पूर्ण अंक दें।

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**General Instructions :**

- (i) Examiners are advised to go through the general as well as specific instructions before taking up evaluation of the answer-books.
- (ii) Instructions given in the marking scheme are to be followed strictly so that there may be uniformity in evaluation.
- (iii) Mistakes in the answers are to be underlined or encircled.
- (iv) Examiners need not hesitate in awarding full marks to the examinee if the answer/s is/are absolutely correct.

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- (v) *Examiners are requested to ensure that every answer is seriously and honestly gone through before it is awarded mark/s. It will ensure the authenticity as their evaluation and enhance the reputation of the Institution.*
  - (vi) *A question having parts is to be evaluated and awarded partwise.*
  - (vii) *If an examinee writes an acceptable answer which is not given in the marking scheme, he or she may be awarded marks only after consultation with the head-examiner.*
  - (viii) *If an examinee attempts an extra question, that answer deserving higher award should be retained and the other scored out.*
  - (ix) *Word limit wherever prescribed, if violated upto 10%. On both sides, may be ignored. If the violation exceeds 10%, 1 mark may be deducted.*
  - (x) *Head-examiners will approve the standard of marking of the examiners under them only after ensuring the non-violation of the instructions given in the marking scheme.*
  - (xi) *Head-examiners and examiners are once again requested and advised to ensure the authenticity of their evaluation by going through the answers seriously, sincerely and honestly. The advice, if not headed to, will bring a bad name to them and the Institution.*
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**महत्त्वपूर्ण निर्देश :**

- (i) अंक-योजना का उद्देश्य मूल्यांकन को अधिकाधिक वस्तुनिष्ठ बनाना है। अंक-योजना में दिए गए उत्तर-बिन्दु अन्तिम नहीं हैं। ये सुझावात्मक एवं सांकेतिक हैं। यदि परीक्षार्थी ने इनसे भिन्न किन्तु उपयुक्त उत्तर दिए हैं, तो उसे उपयुक्त अंक दिए जाएँ।
- (ii) शुद्ध, सार्थक एवं सटीक उत्तरों को यथायोग्य अधिमान दिए जाएँ।
- (iii) परीक्षार्थी द्वारा अपेक्षा के अनुरूप सही उत्तर लिखने पर उसे पूर्णांक दिए जाएँ।
- (iv) वर्तनीगत अशुद्धियों एवं विषयांतर की स्थिति में अधिक अंक देकर प्रोत्साहित न करें।
- (v) भाषा-क्षमता एवं अभिव्यक्ति-कौशल पर ध्यान दिया जाए।
- (vi) मुख्य-परीक्षकों/उप-परीक्षकों को उत्तर-पुस्तिकाओं का मूल्यांकन करने के लिए केवल Marking Instructions/ Guidelines दी जा रही हैं, यदि मूल्यांकन निर्देश में किसी प्रकार की त्रुटि हो, प्रश्न का उत्तर स्पष्ट न हो, मूल्यांकन निर्देश में दिए गए उत्तर से अलग कोई और भी उत्तर सही हो तो परीक्षक, मुख्य-परीक्षक से विचार-विमर्श करके उस प्रश्न का मूल्यांकन अपने विवेक अनुसार करें।

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**Note :** First four questions have 4 marks each but only **three** are to be attempted Possible answers.

1. I Cotton is commercial crop and grown in many parts of India. It is mainly sown in districts of Sirsa, Fatehabad, Hissar, Jind , Bhiwani, Rohtak etc. Its main varieties in Deshi are HS-

107, HD-123, RG-4, CICR-2, while American are HS-6, H-974, H-1098, HHH – 81, HHH-223, AAH-1, LHH-1444, HYB Kalyan. Bt : RCH-317 , RCH-134 RCH-314, RCH-308, MRC, NCS series. Cotton is normally sown in lines, either by machine or otherwise. Cotton is picked from the field which is very labour intensive. It is picked in many cycles. Then taken to market and from there it is in ginning factory where cotton seed is separated and it is pinned, lint is used for making threads and clothes. Cotton is used in many ways.

2. Onion is very popular and almost it is used by all house-holds. It is grown in many parts of India but main producing state is Mahrastra in around Nasik area. It is used in many ways as part of vegetables both in cooking and also used as raw. It is also used as pickle. It is sown both in rabi and kharif. Its main varieties for Rabi are Hisar-2, Pusha red, Pusha white, Punjab 48, Punjab selection while for Kharif are An-53, Agri. dark red. It sown mostly by raising nursery and sown directly with small bulb. After digging it is dried in the shade and stored in the jute bags in the airy shed.
3. Soil conservation is a process where a soil is prevented from erosion due to water, air or snow. There are many ways to control soil erosion. The main methods are construction of bunds, gully plugs, drop structures and diverting the water to flow smoothly. Vegetation of different types is very important to treat the soil to have minimum erosion. Soil conservation is very important it not only saves soil from erosion but also conserve water to be useful for many purposes. It is very useful for all and helps in controlling the floods and save water bodies from filling.

4. Weeds are unwanted plants these grow at the cost of crops. Weeds compete with plants for water and nutrients. De-weeding is done to get rid of these unwanted plants. De-weeding is useful for the crops and helps in increasing the production. However some weeds are fed to cattle. Weeds are controlled by following methods.
- (a) Mechanical method - by this weeds are removed physically by uprooting with hands or by any tool such as hand hoe, wheel hand hoe, cultivator, triphali etc.
  - (b) Chemical Method- here chemical such as weedicide, herbicide are used to burn the weeds in the field it self.
  - (c) Cultural Method- here crops are changed, means, same crop is not sown every year/time in the same field.
5. Out of seven only **six** are to be answered, every one has **three** marks.
- (i) Food grain crops are very important and production is always a issue with farmers, scientists, planners etc. Food grain crops include wheat, barley, rice, Jawar Bajra, maize, gram and other pluses of Rabi and Kharif. There is food corporation of India (FCI) which purchase the food grains from surplus states and sends to other deficit states. It has offices and ware houses all over the country.
  - (ii) Garlic is again an important crop and it is a commercial vegetable. It is used widely in vegetables preparation. It has good self life. It has good medicinal value. It is also used in pickles. It is grown in parts of the country.

- (iii) Drains are constructed in the low lying area to rain out the excess water from the area to save the crops and other things. Drains are very important evacuate excess water low areas. Water in drain either flow by gravity or it is lifted and put into canals.
  - (iv) Green Manure (GM) is also called useful for organic matter. It is sown in the field and after some time it is ploughed back and mixed with soil. It increases the productivity of land. It is prepared by sowing siesbania (Dhaincha), sun hemp and many other crops also act as green manure.
  - (v) Vegetables used in pickles are carrot, radish, turnip, chilies, cauliflowers, ginger onion, garlic etc.
  - (vi) After rice is harvested, it is threshed and grains are separated which are sold and marketed. First of all paddy is dried and in big or small rice mills it is hulled and grain is left thereafter it is bagged and stored for selling to consumers. Its one process is parboiling where rice bran oil is taken.
  - (vii) Salt affected soils are those where salts in the soils are present which do not allow the plants to grow, the soils are saline, alkaline, acidic, calcareous soils etc.
- 6. (i)** Waste land is called bunjer bhumi. It has little or no production. Waste lands are in the hillis, along the drains and river and also water logged. With many efforts of governments and farmers waste land had decreased many folds.

- (ii) Main two food grain crops are benefitted by increasing their production in last few years by introducing high yielding varieties along with other measures. However, yields of mustard, potato of many others have also increased.
- (iii) Canal irrigation is very popular and useful for farmers. Water in canal comes from main dam (Bhakhra) and barrage (Like on Ymuna river at Hathni). Then water is taken by gravity in the plains through network of canals and minors. Thereafter is guided by water courses into farmers field on warrabandi basis.
- (iv) Food processing is very important and is a process by which its quality, self life, taste etc is added, it is value addition process can be more profitable to the processor. It depends on the process and product to be processed it can be heating, boiling, drying adding some thing like preservative, taking juice etc.
- (v) Root vegetables are potato, onion, carrot, radish, turnip, garlic, sweet potato etc.
- (vi) Main Bajra producing states are Rajasthan Haryana, Madhya Pradesh, Karnatka, Gujrat.
- (vii) Weeds are phalerisminor (Mandushi), Lantana (in hills), parthanuim (Congress grass), dhilla, Samak, Jungli palak.
- (viii)The fruits which are grown in Haryana are guava, ber, mango, lemon, chikoo banana etc.
- (ix) Soil testing is important for knowing the status of soil of your field. It guide the

farmer add which nutrients to take good crop. It save money also. It is done free of cost in government soil testing laboratories. After testing a test report is prepared to full information what is to be done to get good crops.

- (x) The main fertilizer factories are of National Fertilizer Limited, Kribco Plant, IFFCO plant, Indian Potash Ltd., Hindustan fertilizers, etc.

**7.** Only **twelve** are to be answered, each has **one** mark. Answer are to be given in **Right** or **Wrong** :

$$12 \times 1 = 12$$

- (i) Wrong
- (ii) Right
- (iii) Right
- (iv) Wrong
- (v) Right
- (vi) Wrong
- (vii) Wrong
- (viii) Wrong
- (ix) Wrong
- (x) Wrong
- (xi) Right
- (xii) Right
- (xiii) Right

