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कुल पृष्ठ संख्या-32 (कवर पेज सहित)

क्रम संख्या.....



माध्यमिक शिक्षा बोर्ड, राजस्थान, अजमेर

उच्च माध्यमिक परीक्षा



(परीक्षक)

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नोट :- परीक्षार्थी उपरोक्त के अतिरिक्त उत्तर पुस्तिका के अन्य किसी भी भाग में अपना नामांक नहीं लिखें।

माध्यम - हिन्दी

अंग्रेजी

विषय Agriculture

परीक्षा का दिन Thursday

दिनांक 21/04/2022

नोट :- परीक्षार्थी के लिए आवश्यक निर्देश इस पृष्ठ के पिछले भाग पर उल्लेखित हैं। जिन्हें सावधानी पूर्वक पढ़ लें व पालना अवश्य करें।

परीक्षक हेतु निर्देश :- (1) परीक्षक को उपरोक्त सारणी अनुसार प्राप्तांक भरना अनिवार्य हैं, अन्यथा नियमानुसार दंडित किया जायेगा।

(2) परीक्षक उत्तर पुस्तिका के अन्दर के पृष्ठों के बायीं ओर निर्धारित कॉलम में लाल इंक से अंक प्रदत्त करें।

(3) कुल योग भिन्न में प्राप्त होने पर उसे पूर्णांक में ही परिवर्तित कर अंकित करें (उदाहरणार्थ : 15¼ को 16, 17½ को 18, 19¾ को 20)

प्रश्नवार प्राप्तांको की सारणी (परीक्षक के उपयोग हेतु)

प्रश्नों की क्रम संख्या	प्राप्तांक	प्रश्नों की क्रम संख्या	प्राप्तांक
1	9	19	4
2	4	20	4
3	8	21	
4	1½	22	
5	1½	23	
6	1½	24	
7	1½	25	
8	1½	26	
9	1½	27	
10	1½	28	
11	1½	29	
12	1½	30	
13	1½	31	
14	1½	योग	56
15	1½	प्राप्त अंकों का कुल योग (Round off)	
16	3	अंकों में	शब्दों में
17	3	56	द्विपद
18	3		

परीक्षक के हस्ताक्षर

संकेतांक

37880

प्रमाणित किया जाता है कि इस उत्तर पुस्तक के निर्माण में 58 जी.एस.एम. ईको मेलिथो कागज ही उपयोग में लिया गया है। 169/2021

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Q₁ MCQsi (C) - Block quarterii (D) - Free martiniii (D) - Mumbaiiv (A) - 30 x 30 x 30 cmv (C) - Limevi (B) - Papayavii (A) - Ruddyviii (B) - 500 - 800 mmix ~~(A) - 20-25 kg~~ (B) - 40-45 kgQ₂ Fill in the blanksi Metabolicii Pomegranateiii Grapeiv moth

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Q3

Answer in one word or one line

iCritical stage of irrigation in mustard crop is
Before floweringiiTwo external parasites found in animals are flea
and ticks and mitesiiiDecrease in milk production is a symptom
of sick animal.ivPlant to plant distance in Papaya orchard
should be 3 metrevPotassium meta bisulphide and Sodium benzoate
are used as Chemical preservative substances.viWhen two or more than two crops are
grown on same land without row maintaining
is known as Mixed CroppingviiThe physical substance like black film,
crop straw or residues, plastic sheet used
for mulching is known as 'mulch'.viiiHolstein Friesian is an exotic breed of cow.

Short answers

Q4 Agronomy has very essential role in agriculture.

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production because agronomy includes seed treatment, tillage, crop production etc. and without them production in agriculture field is not possible. That is why, agronomy is an important perspective for agriculture.

Q5

The property of soil to supply all beneficial nutrients to plants and to increase their production is known as soil fertility. If soil will be fertile then crop growing on it will also give higher production. Soil fertility is an important component of soil productivity.

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Q6

Mechanical measures for weed control :-

i

Hand pulling $\Rightarrow$ This is oldest method of weed control and most effective in small land. This is mostly used in annual weed.

ii

Mulching $\Rightarrow$ Covering upper layer of soil with crop straw or residue is known as mulching. By mulching weed plant will not get enough sunlight and photosynthesis process will hinder, and it will lead to death of weed.

iii

Soil solarization $\Rightarrow$ When soil is covered with black plastic film, then the temperature of soil increases by $8-10^{\circ}\text{C}$ and increases

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in temperature causes death of weed plants

- Q7 Relative weed $\Rightarrow$ When other crop is grown in the field while the growing of main crop is known as relative weed.
- These crops/weeds are not seen by farmers
 - Example $\rightarrow$ Crowding of mustard, gram and pea in wheat crop.

- Q8 Characteristics of ideal jelly $\Rightarrow$
- i. The prepared jelly should be attractive and have good odour

- ii. Jelly should not be seen separately or in broken form

- iii. It should have taste or flavour of fruit by which it is prepared.

Q9 Problems that hinder development of fruit preservation business -

- i. Some varieties of fruit and vegetables are not easily found

- ii. Disregard of technological resources

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Q.9
11
=

Higher price of preserved product and mentality of families towards it.

Q.10
11
=

Characteristics of 'Rathi' cow breed :-

Its skin colour is of ~~light~~ white, brown and red spots found on it.

Q.11
11
=

Horns are short and thick and body structure is medium.

Q.12
11
=

Milk production is 1200 to 1500 kg per lactation period. That is why, it is a milk breed of cow.

Q.13
11
=

Place of Origin $\Rightarrow$ Place of origin of Murrah is western Haryana (Sirsa) and adjoining areas of Delhi.

Q.14
11
=

Characteristic of Murrah breed of buffalo :-

Horns are long and are in curved shape.

Q.15
11
=

The colour of body is shiny black colour, that is why, it is said to be most beautiful breed of buffalo.

Q.16
11
=

National Dairy Research Institute is situated in

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Karnal district of Haryana state.

- Two hybrid breeds which are developed from National Dairy Research Institute are -

i. Karan Fries

ii. Karan Swiss

Q13 Place of origin $\Rightarrow$ Place of origin of this
Tajrabadi breed of buffalo
is Kathiyawad area and Tajrabad area of
Gujarat

Characteristics $\Rightarrow$

- i. It is heavy breed of buffalo because the
weight of Tajrabadi male is 500 to 600 kg.
and Tajrabadi female is 450 to 500 kg.

ii. Horns of Tajrabadi buffalo is straight
which is in down direction and then a
curve is present which give upward direction
Horns are associated with 'drooping horns' term

Q14 Characteristics of healthy animal :-
i. Normal physical, mental
activities and health and physiological

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Q⁰⁰
11
=

Normal body temperature, pulse rate and respiration rate

11
2Q⁰⁰
111
=

Alert and erect ears and shiny skin is present in healthy animals.

Q₁₅
=

Causal Organism of foot and mouth disease :-

Causal organism of foot and mouth disease is virus.

- 7 species of virus causes disease, they are :-
A, O, C, set I, set II, set III and variant I

USER-1692021

Q⁰⁰
11
=

Symptoms of Foot and mouth disease :-

i. Due to wounds present in foot animal hobbles while ~~moving~~ walking and even cannot walk properly

Q⁰⁰
11
=

ii. Ulcers are formed in mouths, by which drooling occurs.

Q₁₆
=

Trench method of making Farm Yard Manure :-

- Trench method of making Farm Yard manure was developed by C. N. Acharya
- This method is most popular and most convenient method of Farm Yard manure making
- In this method, trenches are made in which

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Farm Yard Manure is prepared.

- The dimensions of this trench ^{has} length of 60 feet, width of 5 feet and depth of 1.5 feet.

- Substances require for Trench method are:-
Dung or Slurry of Dung
Urine
Straw bedding

Method :-

- Firstly, dung is ~~spread~~ spread in all over the trench.
- After spreading dung, the straw bedding which are soaked in urine is used in trench and water is used to give it proper moisture for decomposition.
- This process is repeated till the trench is not filled and manure should be 1 feet above the trench and then it is covered.
- By trench method, Farm Yard Manure is prepared in 3 months.

- The prepared manure is applied in crops at the rate of 10-15 tonnes per hectare and in vegetables at the rate of 20-25 tonnes per hectare.

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Q 17

Cow breeds :-

Maryana ⇒

Place of origin = The place of origin of Maryana breed is Maryana state. It is found in Alwar and Bharatpur districts of Rajasthan.

- Utility * The milk production this breed is 1000 to 1200 kg per lactation period. Bulls are used in farming and tillage practices.

ii

Nagori ⇒

Place of origin = Place of origin of Nagori breed is Jodhpur and Nagaur districts of Rajasthan. It is found in adjoining areas of these districts.

- Utility = Milk production is 600 to 900 kg per lactation period. It is a draft purpose breed that is why bulls are used in agriculture practices.

iii

Jersey ⇒

Place of origin = The origin place of Jersey breed is said to be in Jersey island found in English channel. This cow is abundantly found in India and Rajasthan.

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- 1
- Utility = The milk production is approximately 4000 to 4500 kg per lactation period. Its milk contains 5 to 5.5% fat. Bulls are not suitable for farming and tillage practices.
- 2

Q18 Square planting System for fruit orchard:
• This method of planting system is most popular and easiest method used in fruit orchard.

- In this method, Row to row distance and Plant to Plant distance is kept similar and where the lines of rows and plants intersect each other, the plant is sown there and it leads to square structure.
- That is why, it is known as square method.
- With the help of square method, good production is obtained as well as there is no hindrance in transport works in orchard. There is proper space between trees by which these works can be done.

- Examples of fruit which are planted by square planting system -

→ Mango - 10×10 m

→ Ber - 8×8 m

→ Pomegranate - 5×5 m

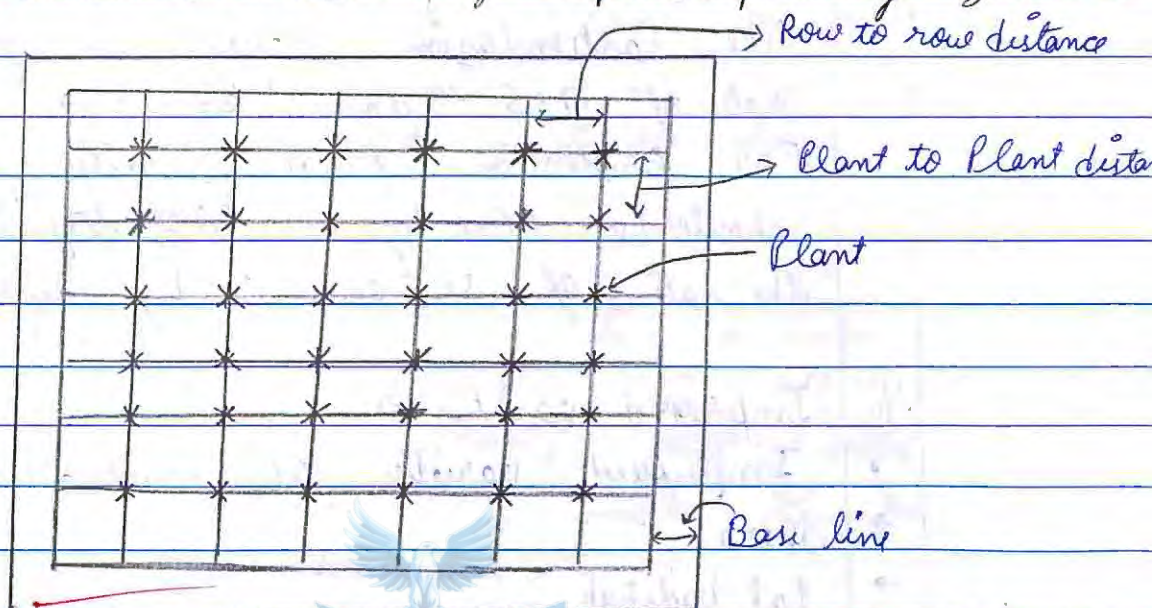
→ Papaya - 3×3 m

etc.

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Diagrammatic illustration of square planting system :-



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Q19 Wheat crop :-

i Time of sowing and method ⇒

- Sowing of wheat in unirrigated regions should be done from 1 October to 30 October
- Sowing of wheat in irrigated regions is done from 25 October to 10 November
- Sowing of wheat should be done in lines with Row to row distance 22.5 cm and plant to plant distance 10-11 cm
- Depth should be taken 6 to 7 cm

ii Seed rate and seed treatment ⇒

- Seed rate of wheat in irrigated regions should be 100 kg / hectare
- Seed rate of wheat in unirrigated regions should be 125 kg / hectare

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- Seed treatment should be done by fungicide like Carbendazim, ceptam etc. at the rate of 2.5-3 gm / kg seeds.
- For protection from termites, seed treatment should be done by Chloropyrifos at the rate of 450 ml / kg seeds

iii Improved varieties $\Rightarrow$

- Improved varieties of wheat are -

$\rightarrow$ Heera
 $\rightarrow$ Lal badshah
 $\rightarrow$ Kharoshia
 $\rightarrow$ Raj 3777

iv Yield per hectare $\Rightarrow$

- Yield of wheat in irrigated regions is 50-60 quintal / hectare
- Yield of wheat in unirrigated regions is nearly 15-20 quintal / hectare.

Q20 Mango :-

i Soil and Climate $\Rightarrow$

- Sandy loam and loamy soil which is rich in organic matter and with pH range of 6.5-7.5 is suitable for mango cultivation.
- There should not be any hard layer present till 2 meter depth.

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- Mango is fruit of tropical climate and temperature range $25-30^{\circ}\text{C}$ is most suitable climate for mango.
- Heavy rainfall is harmful at the time for fruiting and flowering.

11. Plant propagation $\Rightarrow$

- Mango can be propagated by both seed and vegetative method. Inarching, soft wood grafting and stem grafting are some of vegetative propagation method.
- Veneer grafting is commercial method of propagation.
- In this method, small wedge cut downwards which is 30 mm in length is given and again a smaller cut is given, by which upper part is removed.
- Now upper part of other plant is taken and attached with the rootstock by tying polythene sheet on it.
- For veneer grafting plants should be 75 cm long.
- It is mostly used in July - August month.

11. Four improved varieties $\Rightarrow$

- Improved varieties of mango are :-
 - $\rightarrow$ Bombay green
 - $\rightarrow$ Kesar
 - $\rightarrow$ Chausa
 - $\rightarrow$ Neelam

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iv

Planting method →

- Planting is done in July month. Layout of pit should be prepared one month before planting.
- Pit size for mango is $1 \times 1 \times 1$ m and R x P is 10×10 m but for some varieties it is different like in Amrapali it is 2.5×2.5 m and in Dasherit for density ~~plan~~ planting it is 1.25×1.25 metre.
- Pits should be filled with 25 kg FYM [Farm Yard manure], 1 kg super phosphate and 250 gram of granolophos for killing insects.

END