

Application No

Roll No

Candidate Name

Module Name **AGRONOMY**

Exam Date **14-Jul-2023**

Exam Batch **10:00-12:00**

AGRONOMY

Question No. 1 / Question ID 908

Marks: 4.00

Critical limit of HCN in sorghum (dry wt. basis) is:

1. 200 ppm
2. 400 ppm
3. 100 ppm
4. 500 ppm

- ☒ 1 (Chosen Option)
- ☐ 2
- ☐ 3
- ☐ 4

Question No. 2 / Question ID 801

Marks: 4.00

Most abundant gas in our atmosphere that plants cannot utilize directly in its atmospheric form and is captured by certain bacteria that live symbiotically in the nodules of roots

1. Oxygen
2. Nitrogen
3. Neon
4. Hydrogen

- ☐ 1
- ☒ 2 (Chosen Option)
- ☐ 3
- ☐ 4

Question No. 3 / Question ID 811

Marks: 4.00

- ☒ 1 (Chosen Option)
- ☐ 2
- ☐ 3
- ☐ 4

Question No. 4 / Question ID 895

Marks: 4.00

The most abundant minerals and mineral groups in sand and silt of soils throughout the world is:

1. Feldspars
2. Olivine
3. Quartz
4. Pyroxenes and Amphiboles

- ☐ 1
- ☐ 2
- ☒ 3 (Chosen Option)
- ☐ 4

Question No. 5 / Question ID 879

Marks: 4.00

- ☐ 1
- ☐ 2
- ☐ 3
- ☐ 4 (Chosen Option)

Question No. 6 / Question ID 805

Marks: 4.00

Which of the following is not a correct pairing of a macronutrient and its major function in growth and developments of plants?

1. Potassium-enzyme activation, water balance, ion balance.
2. Calcium-activity of membranes and cytoskeleton, second messenger.
3. Sulfur-in proteins and coenzymes.
4. Iron-in active sites of many redox enzymes and electron carriers.

- ☐ 1
- ☐ 2
- ☐ 3
- ☐ 4 (Chosen Option)

Question No. 7 / Question ID 916

Marks: 4.00

The physical process of soil degradation

1. Fertility imbalance
2. Organic matter decline
3. Erosion and depletion
4. Acidification

- ☐ 1
- ☐ 2
- ☐ 3 (Chosen Option)
- ☐ 4

Question No. 8 / Question ID 806

Marks: 4.00

- ☐ 1
- ☒ 2 (Chosen Option)
- ☐ 3
- ☐ 4

Question No. 9 / Question ID 817

Marks: 4.00

Rotenone is a

- 1. Insect hormone
- 2. Natural insecticide
- 3. Bioherbicide
- 4. Natural herbicide

- ☐ 1
- ☒ 2 (Chosen Option)
- ☐ 3
- ☐ 4

Question No. 10 / Question ID 822

Marks: 4.00

Given below are two statements, one is labelled as Assertion (A) and other one labelled as Reason (R).

Assertion (A) : The temperature increases in the troposphere from ground to tropopause.

Reason (R) : Ozone absorbs ultra violet radiation in the stratosphere and makes it warm.

In light of the above statements, choose the *correct* answer from the options given below.

- 1. Both (A) and (R) are true and (R) is the correct explanation of (A).
- 2. Both (A) and (R) are true but (R) is NOT the correct explanation of (A).
- 3. (A) is true but (R) is false.
- 4. (A) is false but (R) is true.

- ☐ 1
- ☐ 2
- ☐ 3
- ☒ 4 (Chosen Option)

Question No. 11 / Question ID 834

Marks: 4.00

- ☒ 1 (Chosen Option)
- ☐ 2
- ☐ 3
- ☐ 4

Question No. 12 / Question ID 850

Marks: 4.00

Which of the following does not apply to SRI method of paddy cultivation?

1. Reduced water application

2. Reduced plant density

3. Increased application of chemical fertilizers

4. Reduced age of seedling transplanting
- ☐ 1

☐ 2

☒ 3 (Chosen Option)

☐ 4

Question No. 13 / Question ID 804

Marks: 4.00

Match the following in correct combinations.

Set-I	Set-II
(A). Photolysis of water	(I). Zinc
(B). Diazotrophy	(II). Copper
(C). Cytochrome oxidase	(III). Manganese
(D). Biosynthesis of IAA	(IV). Molybdenum

Choose the **correct** answer from the options given below:

1. (A) - (III), (B) - (II), (C) - (I), (D) - (IV)

2. (A) - (III), (B) - (IV), (C) - (II), (D) - (I)

3. (A) - (IV), (B) - (III), (C) - (II), (D) - (I)

4. (A) - (I), (B) - (IV), (C) - (II), (D) - (III)

- ☐ 1
- ☒ 2 (Chosen Option)
- ☐ 3
- ☐ 4

Question No. 14 / Question ID 824

Marks: 4.00

What is the minimum cardinal temperature (⁰C) of maize and wheat?

- 1. 5-7 and 1.0 - 2.5
- 2. 10-12 and 5.0 - 5.5
- 3. 8-10 and 3.0 - 4.5
- 4. 12-15 and 5.0 - 5.5

- ☐ 1
- ☐ 2
- ☒ 3 (Chosen Option)
- ☐ 4

Question No. 15 / Question ID 833

Marks: 4.00

Time-series model, cross-section model and panel model are three main statistical methods of

- 1. Stochastic model
- 2. Mechanistic model
- 3. Deterministic model
- 4. Empirical model

- ☐ 1
- ☐ 2
- ☐ 3
- ☒ 4 (Chosen Option)

Question No. 16 / Question ID 827

Marks: 4.00

At what height, remote sensing satellites are placed above the earth surface?

- 1. 800 km
- 2. 1000 km
- 3. 18000 km
- 4. 36000 km

- ☒ 1 (Chosen Option)
- ☐ 2
- ☐ 3
- ☐ 4

Question No. 17 / Question ID 897

Marks: 4.00

- ☐ 1
- ☐ 2
- ☐ 3
- ☒ 4 (Chosen Option)

Question No. 18 / Question ID 807

Marks: 4.00

Osmotic expansion of a cell kept in water is chiefly regulated by an organelle

- 1. Mitochondria
- 2. Vacuoles
- 3. Plastids
- 4. Ribosomes

- ☐ 1
- ☒ 2 (Chosen Option)
- ☐ 3
- ☐ 4

Question No. 19 / Question ID 847

Marks: 4.00

Optimum seed rate for a good crop stand of Isabgol is :

- 1. 1.0 kg/ha
- 2. 2.0 kg/ha
- 3. 4.0 kg/ha
- 4. 10 kg/ha

- ☐ 1
- ☐ 2
- ☒ 3 (Chosen Option)
- ☐ 4

Question No. 20 / Question ID 818

Marks: 4.00

An enzyme that joins the ends of two strands of nucleic acid is

- 1. Polymerase
- 2. Ligase
- 3. Synthetase
- 4. Helicase

- ☐ 1
- ☒ 2 (Chosen Option)

- ☐ 3
- ☐ 4

Question No. 21 / Question ID 870

Marks: 4.00

Match **List-I** (practices) with **List-II** (crops)

List-I	List-II
(A). Blanket spray	(I). Maize
(B). Trash mulch	(II). Potato
(C). Earthing up	(III). Sugarcane ratoon
(D). Soybean intercropping	(IV). Sugarcane

Choose the **correct** answer from the options given below;

- 1. (A) - (III), (B) - (IV), (C) - (II), (D) - (I)
- 2. (A) - (IV), (B) - (I), (C) - (II), (D) - (III)
- 3. (A) - (II), (B) - (IV), (C) - (I), (D) - (III)
- 4. (A) - (III), (B) - (I), (C) - (IV), (D) - (II)

- ☒ 1 (Chosen Option)
- ☐ 2
- ☐ 3
- ☐ 4

Question No. 22 / Question ID 881

Marks: 4.00

For irrigation in one ha wheat field, the level of CPE is fixed at 80 mm, compute the amount of irrigation water if desired IW/CPE ratio is 0.8.

- 1. 3.2 cm
- 2. 6.4 cm
- 3. 8.8 cm
- 4. 10 cm

- ☐ 1
- ☒ 2 (Chosen Option)
- ☐ 3
- ☐ 4

Question No. 23 / Question ID 893

Marks: 4.00

The fertilizer having least equivalent acidity is:

- 1. Urea
- 2. Ammonium nitrate
- 3. Ammonium chloride
- 4. Calcium ammonium nitrate

- ☐ 1
- ☒ 2 (Chosen Option)
- ☐ 3
- ☐ 4

Question No. 24 / Question ID 840

Marks: 4.00

Given below are two statements, one is labelled as Assertion (A) and other one labelled as Reason (R).

Assertion (A) : C4 plants usually do not reach radiation saturation in direct sunlight

Reason (R) : C4 plants use high radiation levels more efficiently at low levels than under full sunlight

In light of the above statements, choose the *correct* answer from the options given below.

- 1. Both (A) and (R) are true and (R) is the correct explanation of (A).
- 2. Both (A) and (R) are true but (R) is NOT the correct explanation of (A).
- 3. (A) is true but (R) is false.
- 4. (A) is false but (R) is true.

- ☒ 1 (Chosen Option)
- ☐ 2
- ☐ 3
- ☐ 4

Question No. 25 / Question ID 832

Marks: 4.00

Match **List-I** with **List-II**

List-I	List-II
(Name of ICAR research institutes)	(Head quarter)
(A). ICAR- Research Complex for Eastern Region	(I). Bengaluru
(B). ICAR- National Institute of Natural Fibre Engineering and Technology,	(II). Patna
(C). ICAR- National Institute of Veterinary Epidemiology and Disease Informatics	(III). Trichi
(D). ICAR-National Research Centre for Banana	(IV). Kolkata

Choose the **correct** answer from the options given below:

- 1. (A) - (II), (B) - (IV), (C) - (I), (D) - (III)
- 2. (A) - (I), (B) - (II), (C) - (III), (D) - (IV)
- 3. (A) - (IV), (B) - (III), (C) - (I), (D) - (II)
- 4. (A) - (III), (B) - (IV), (C) - (I), (D) - (II)

- ☒ 1 (Chosen Option)
- ☐ 2
- ☐ 3
- ☐ 4

Question No. 26 / Question ID 860

Marks: 4.00

- ☐ 1 (Chosen Option)
- ☐ 2
- ☐ 3
- ☐ 4

Question No. 27 / Question ID 913

Marks: 4.00

Match **List-I** with **List-II**

List-I (Type of radiation)	List-II (Wavelength)
(A). Red	(I). <400 nm
(B). Blue	(II). 450-500 nm
(C). Ultraviolet	(III). >760 nm
(D). Infrared	(IV). 620-760 nm

Choose the **correct** answer from the options given below;

- 1. (A) - (III), (B) - (IV), (C) - (I), (D) - (II)
- 2. (A) - (IV), (B) - (II), (C) - (I), (D) - (III)
- 3. (A) - (II), (B) - (III), (C) - (IV), (D) - (I)
- 4. (A) - (I), (B) - (III), (C) - (II), (D) - (IV)

- ☐ 1
- ☒ 2 (Chosen Option)
- ☐ 3
- ☐ 4

Question No. 28 / Question ID 857

Marks: 4.00

Argimone mexicana is an objectionable weed of _____.

- 1. Linseed
- 2. Mustard
- 3. Lucerne
- 4. Sesamum

- ☐ 1

- ☒ 2 (Chosen Option)
- ☐ 3
- ☐ 4

Question No. 29 / Question ID 829

Marks: 4.00

Given below are two statements, one is labelled as Assertion (A) and other one labelled as Reason (R).

Assertion (A) : A remote sensing system that possesses only a sensor and depends on an external source to irradiate the target to be sensed is called an active remote sensing system.

Reason (R) : Synthetic Aperture Radar uses microwave band to estimate soil moisture.

In light of the above statements, choose the *correct* answer from the options given below.

1. Both (A) and (R) are true and (R) is the correct explanation of (A).
2. Both (A) and (R) are true but (R) is NOT the correct explanation of (A).
3. (A) is true but (R) is false.
4. (A) is false but (R) is true.

- ☐ 1
- ☐ 2
- ☐ 3
- ☒ 4 (Chosen Option)

Question No. 30 / Question ID 861

Marks: 4.00

Which of the following groups of herbicides, oxyflourfen belongs to?

1. Diphenyl ethers
2. Nitriles
3. Bipyridilliums
4. Oximes

- ☒ 1 (Chosen Option)
- ☐ 2
- ☐ 3
- ☐ 4

Question No. 31 / Question ID 852

Marks: 4.00

Rhizobium japonicum fixes N in symbiotic relationship with :

1. Pea group
2. Lupin group
3. Soybean group
4. *Phaseolus* group

- ☐ 1
- ☐ 2
- ☒ 3 (Chosen Option)
- ☐ 4

Question No. 32 / Question ID 810

Marks: 4.00

- ☐ 1
- ☐ 2
- ☒ 3 (Chosen Option)
- ☐ 4

Question No. 33 / Question ID 808

Marks: 4.00

Which one of the following is a wrong statement?

1. Greenhouse effect is a natural phenomenon.
2. Ozone in upper part of atmosphere is harmful to animals
3. Eutrophication is a natural phenomenon in freshwater bodies.
4. Most of the forest have been lost in tropical areas.

- ☐ 1
- ☒ 2 (Chosen Option)
- ☐ 3
- ☐ 4

Question No. 34 / Question ID 809

Marks: 4.00

- ☒ 1 (Chosen Option)
- ☐ 2
- ☐ 3
- ☐ 4

Question No. 35 / Question ID 914

Marks: 4.00

Given below are two statements, one is labelled as Assertion (A) and other one labelled as Reason (R).

Assertion (A) : NBPT (N-(n-butyl) thiophosphoric triamide) (commercial name Agrotain®).

Reason (R) : It competes for active sites on the urease enzyme and ties up activity for about 25 days.

In light of the above statements, choose the *correct* answer from the options given below.

1. Both (A) and (R) are true and (R) is the correct explanation of (A).
2. Both (A) and (R) are true but (R) is NOT the correct explanation of (A).
3. (A) is true but (R) is false.
4. (A) is false but (R) is true.

- ☒ 1 (Chosen Option)
- ☐ 2
- ☐ 3
- ☐ 4

Question No. 36 / Question ID 876

Marks: 4.00

- ☒ 1 (Chosen Option)
- ☐ 2
- ☐ 3
- ☐ 4

Question No. 37 / Question ID 875

Marks: 4.00

A 20,000 m² maize crop field was supplied with 60 mm depth of irrigation, find out how many liters of water has gone into the field.

- 1. 3 lakh
- 2. 6 lakh
- 3. 8 lakh
- 4. 12 lakh

- ☐ 1
- ☐ 2
- ☐ 3
- ☒ 4 (Chosen Option)

Question No. 38 / Question ID 880

Marks: 4.00

A mustard crop is irrigated in 30 hours, with a discharge rate of 200 litres per minute, workout the average depth of irrigation

- 1. 90 mm
- 2. 66.6 mm
- 3. 60 mm
- 4. 36 mm

- ☐ 1

- ☐ 2
- ☐ 3
- ☒ 4 (Chosen Option)

Question No. 39 / Question ID 891

Marks: 4.00

The mineral containing boron (B) is:

1. Tourmaline

2. Topaz

3. Epidote

4. Francolites
- ☒ 1 (Chosen Option)
- ☐ 2
- ☐ 3
- ☐ 4

Question No. 40 / Question ID 826

Marks: 4.00

Global warming potential of SF₆ is

1. 23,500

2. 22,500

3. 20,500

4. 15,500
- ☒ 1 (Chosen Option)
- ☐ 2
- ☐ 3
- ☐ 4

Question No. 41 / Question ID 816

Marks: 4.00

Match List I with List II:

List - I	List - II
A. Centriole	I. Thylakoids
B. Chlorophyll	II. Infoldings in mitochondria
C. Cristae	III. Nucleic acids
D. Ribozymes	IV. Basal body cilia or flagella

1. (A) - (IV), (B) - (I), (C) - (II), (D) - (III)

2. (A) - (III), (B) - (I), (C) - (II), (D) - (IV)

3. (A) - (IV), (B) - (II), (C) - (I), (D) - (III)

4. (A) - (IV), (B) - (I), (C) - (III), (D) - (II)
- ☒ 1 (Chosen Option)
- ☐ 2

☐ 3

☐ 4

Question No. 42 / Question ID 828

Marks: 4.00

For how many days in advance, weather forecasts are currently issued by IMD in Gramin Krishi Mausam Sewa (GKMS) Project?

1. 3 days
2. 5 days
3. 10 days
4. 21 days

☐ 1

☒ 2 (Chosen Option)

☐ 3

☐ 4

Question No. 43 / Question ID 843

Marks: 4.00

The long duration pulse crop is :

1. Green gram
2. Black gram
3. Cowpea
4. Pigeonpea

☐ 1

☐ 2

☐ 3

☒ 4 (Chosen Option)

Question No. 44 / Question ID 845

Marks: 4.00

Seed rate of fodder oats is :

1. 20 kg/ha
2. 50 kg/ha
3. 100 kg/ha
4. 200 kg/ha

☐ 1

☒ 2 (Chosen Option)

☐ 3

☐ 4

Question No. 45 / Question ID 910

Marks: 4.00

- ☐ 1
- ☐ 2
- ☒ 3 (Chosen Option)
- ☐ 4

Question No. 46 / Question ID 865

Marks: 4.00

The first case of confirmed herbicide resistance in weed was reported by _____.

- 1. C.F. Ryan
- 2. Cive James
- 3. I. Heap
- 4. S.O. Duke

- ☒ 1 (Chosen Option)
- ☐ 2
- ☐ 3
- ☐ 4

Question No. 47 / Question ID 902

Marks: 4.00

The major mechanism of reducing heat from the crop canopy is :

- 1. Advective heat losses
- 2. Evaporation
- 3. Transpiration
- 4. Heat absorption by soil

- ☒ 1 (Chosen Option)
- ☐ 2
- ☐ 3
- ☐ 4

Question No. 48 / Question ID 884

Marks: 4.00

- ☐ 1
- ☐ 2
- ☒ 3 (Chosen Option)
- ☐ 4

Question No. 49 / Question ID 912

Marks: 4.00

The sulphur content (%) in the following fertilizers are:

- (A). Single superphosphate (SSP) contains 9-12% S.
- (B). Ammonium sulphate contains 16% S.
- (C). Potassium sulphate contains 18% S
- (D). Ammonium phosphate sulphate contains 15%.

Choose the correct answer from the options given below:

- 1. (A), (B) and (D) only.
- 2. (A), (B) and (C) only.
- 3. (A), (C) and (D) only.
- 4. (B), (C) and (D) only.

- ☐ 1
- ☐ 2
- ☒ 3 (Chosen Option)
- ☐ 4

Question No. 50 / Question ID 915

Marks: 4.00

- ☐ 1
- ☐ 2
- ☒ 3 (Chosen Option)
- ☐ 4

Question No. 51 / Question ID 906

Marks: 4.00

Which crop among the following is relatively most tolerant to salinity :

- 1. Green gram
- 2. Rice
- 3. Maize
- 4. Barley

- ☐ 1
- ☐ 2
- ☐ 3
- ☒ 4 (Chosen Option)

Question No. 52 / Question ID 848

Marks: 4.00

Berseem crop is the native of :

- 1. India
- 2. Bhutan
- 3. Egypt
- 4. Mexico

- ☐ 1
- ☐ 2
- ☒ 3 (Chosen Option)
- ☐ 4

Question No. 53 / Question ID 842

Marks: 4.00

- ☐ 1
- ☒ 2 (Chosen Option)
- ☐ 3
- ☐ 4

Question No. 54 / Question ID 873

Marks: 4.00

Given below are two statements, one is labelled as Assertion (A) and other one labelled as Reason (R).

Assertion (A) : At sea-level, where the atmospheric pressure is at 1 bar a tensiometer can be used to indicate soil suction values upto 1 bar

Reason (R) : Beyond this value, because of low pressure, the water column in the tensiometer would break into vapour or boil away and leave the tensiometer system making it inoperative

In light of the above statements, choose the *correct* answer from the options given below.

1. Both (A) and (R) are true and (R) is the correct explanation of (A).
2. Both (A) and (R) are true but (R) is NOT the correct explanation of (A).
3. (A) is true but (R) is false.
4. (A) is false but (R) is true.

- ☐ 1
- ☐ 2
- ☒ 3 (Chosen Option)
- ☐ 4

Question No. 55 / Question ID 858

Marks: 4.00

Given below are two statements:

Statement (I): Increasing fertilizer rates to maintain yields in weedy fields can be a waste of resources.

Statement (II): Increasing fertilizer rates to give competitive advantage on already weeded plots may sustain the effect of weeding.

In light of the above statements, choose the *most appropriate* answer from the options given below.

1. Both Statement (I) and Statement (II) are correct.
2. Both Statement (I) and Statement (II) are incorrect.
3. Statement (I) is correct but Statement (II) is incorrect.
4. Statement (I) is incorrect but Statement (II) is correct.

- ☒ 1 (Chosen Option)
- ☐ 2
- ☐ 3
- ☐ 4

Question No. 56 / Question ID 889

Marks: 4.00

Red sandy clay loam soils (Chalka soil) are found in the state of:

1. Andhra Pradesh
2. Tamil Nadu
3. Karnataka
4. Kerala

- ☐ 1
- ☒ 2 (Chosen Option)
- ☐ 3
- ☐ 4

Question No. 57 / Question ID 900

Marks: 4.00

Brays No. 1 reagent consists of mixture of

1. 0.03 N NH_4F + 0.025 N HCl
2. 0.3 N NH_4F + 0.025 N HCl
3. 0.03 N NH_4F + 0.25 N HCl
4. 0.3 N NH_4F + 0.25 N HCl

- ☒ 1 (Chosen Option)
- ☐ 2
- ☐ 3
- ☐ 4

Question No. 58 / Question ID 903

Marks: 4.00

Available water for plant indicates water held between :

1. 0.33 bar to 15.0 bar
2. 0.1 bar to 0.33 bar
3. Above 15.0 bar
4. Below 0.1 bar only

- ☒ 1 (Chosen Option)
- ☐ 2
- ☐ 3
- ☐ 4

Question No. 59 / Question ID 874

Marks: 4.00

At ultimate wilting point, soil water potential is

1. – 15 bars
2. – 20 bars
3. –30 bars
4. –60 bars

- ☐ 1

- ☐ 2
- ☐ 3
- ☒ 4 (Chosen Option)

Question No. 60 / Question ID 917

Marks: 4.00

Given below are two statements:

Statement (I): The principles of conservation agriculture are minimum soil disturbance, permanent soil cover and mixing and rotating crops.

Statement (II): The three factors important for the success of CA are timely operations, precise operations and efficient use of inputs.

In light of the above statements, choose the *most appropriate* answer from the options given below.

1. Both Statement (I) and Statement (II) are correct.
2. Both Statement (I) and Statement (II) are incorrect.
3. Statement (I) is correct but Statement (II) is incorrect.
4. Statement (I) is incorrect but Statement (II) is correct.

- ☒ 1 (Chosen Option)
- ☐ 2
- ☐ 3
- ☐ 4

Question No. 61 / Question ID 851

Marks: 4.00

Cotton fibre is made up of :

1. Crude fibre
2. Starch
3. Cellulose
4. Lignin

- ☐ 1
- ☐ 2
- ☒ 3 (Chosen Option)
- ☐ 4

Question No. 62 / Question ID 837

Marks: 4.00

- ☐ 1
- ☒ 2 (Chosen Option)
- ☐ 3
- ☐ 4

Question No. 63 / Question ID 885

Marks: 4.00

Most common salt in saline water is

- 1. Magnesium chloride
- 2. Sodium chloride
- 3. Calcium sulphate
- 4. Sodium sulphate

- ☐ 1
- ☒ 2 (Chosen Option)
- ☐ 3
- ☐ 4

Question No. 64 / Question ID 868

Marks: 4.00

Herbicidal control for *Lantana camara*

- 1. Pendimethalin
- 2. Glyhosate
- 3. Atrazine
- 4. Metolachlor

- ☐ 1
- ☒ 2 (Chosen Option)
- ☐ 3
- ☐ 4

Question No. 65 / Question ID 815

Marks: 4.00

- ☐ 1
- ☐ 2
- ☒ 3 (Chosen Option)
- ☐ 4

Question No. 66 / Question ID 904

Marks: 4.00

Popular oilseed crops that can be grown as intercrop in cotton:

- 1. Groundnut and mustard
- 2. Soyabean and safflower
- 3. Groundnut and safflower
- 4. Soyabean and groundnut

- ☐ 1
- ☐ 2
- ☐ 3
- ☒ 4 (Chosen Option)

Question No. 67 / Question ID 892

Marks: 4.00

Filter cake is a byproduct of

- 1. Textile Industry
- 2. Sugar Industry
- 3. Paper Industry
- 4. Dye Industry

- ☒ 1 (Chosen Option)
- ☐ 2
- ☐ 3
- ☐ 4

Question No. 68 / Question ID 839

Marks: 4.00

Weight of a soil sample with can is 220 g and dry weight with can is 190 g. Weight of empty moisture can is 45 g. Calculate moisture content of soil sample.

- 1. 18.7 %
- 2. 20.7 %
- 3. 25.7%
- 4. 27.3 %

- ☐ 1
- ☒ 2 (Chosen Option)

- ☐ 3
- ☐ 4

Question No. 69 / Question ID 883

Marks: 4.00

Water measuring device used for determining discharge from a piped irrigation system is usually

1. Weir

2. V-notch

3. Flow meter

4. Flume
- ☐ 1

☐ 2

☒ 3 (Chosen Option)

☐ 4

Question No. 70 / Question ID 907

Marks: 4.00

What will be the WUE (kg/ha/mm), if wheat crop used 40 cm of water during whole period and yielded 4.0 t/ha of grains?

1. 10

2. 100

3. 40

4. 0.1
- ☒ 1 (Chosen Option)

☐ 2

☐ 3

☐ 4

Question No. 71 / Question ID 886

Marks: 4.00

First remote sensing satellite in India is

1. IRS- 1A

2. IRS-1B

3. ERST-1

4. LANDSAT- 1
- ☒ 1 (Chosen Option)

☐ 2

☐ 3

☐ 4

Question No. 72 / Question ID 871

Marks: 4.00

- ☒ 1 (Chosen Option)
- ☐ 2
- ☐ 3
- ☐ 4

Question No. 73 / Question ID 859

Marks: 4.00

Main dispersal agent of Dandelion is _____.

- 1. Wind
- 2. Water
- 3. Birds
- 4. Humans

- ☐ 1
- ☐ 2
- ☒ 3 (Chosen Option)
- ☐ 4

Question No. 74 / Question ID 803

Marks: 4.00

The golgi complex plays a major role

- 1. In digesting proteins and carbohydrates
- 2. As energy transferring organelles
- 3. In post translational modification of proteins and glycosidation of lipids
- 4. In trapping the light and transforming it into chemical energy

- ☐ 1
- ☐ 2
- ☒ 3 (Chosen Option)
- ☐ 4

Question No. 75 / Question ID 920

Marks: 4.00

- ☐ 1
- ☐ 2
- ☐ 3
- ☒ 4 (Chosen Option)

Question No. 76 / Question ID 911

Marks: 4.00

Given below are two statements:

Statement (I): In strongly acidic soils, H_2PO_4^- form dominates, while in alkaline soils, P is largely present as HPO_4^{2-} form.

Statement (II): Plant takes both the form of H_2PO_4^- and HPO_4^{2-} in equal amounts for their growth and development.

In light of the above statements, choose the *most appropriate* answer from the options given below.

1. Both Statement (I) and Statement (II) are correct.
2. Both Statement (I) and Statement (II) are incorrect.
3. Statement (I) is correct but Statement (II) is incorrect.
4. Statement (I) is incorrect but Statement (II) is correct.

- ☐ 1
- ☐ 2
- ☒ 3 (Chosen Option)
- ☐ 4

Question No. 77 / Question ID 899

Marks: 4.00

Read the following statements carefully.

- (A). 2-Chloro-6-trichloromethyl pyridine
- (B). 2 Amino-4-chloro-6-methyl pyrimidine
- (C). Phenyl phosphoro diamidate
- (D). Dicyandiamide

Choose the **correct** answer from the options given below:

1. (A), (B) and (C) only.
2. (A), (B) and (D) only.
3. (A), (B), (C) and (D).
4. (B), (C) and (D) only.

- ☐ 1
- ☐ 2
- ☒ 3 (Chosen Option)

Question No. 78 / Question ID 812

Marks: 4.00

Given below are two statements, one is labelled as Assertion (A) and other one labelled as Reason (R).

Assertion (A): Water and mineral uptake by root hairs from the soil occurs through apoplast until it reaches endodermis.

Reason (R): Casparian strips in endodermis are suberized.

In light of the above statements, choose the *correct* answer from the options given below.

- 1. Both Assertion & Reason are true and the Reason is the correct explanation of the Assertion.
- 2. Both Assertion & Reason are true but the Reason is not the correct explanation of the Assertion.
- 3. Assertion is true statement but Reason is false.
- 4. Both Assertion and Reason are false statements.

- ☒ 1 (Chosen Option)
- ☐ 2
- ☐ 3
- ☐ 4

Question No. 79 / Question ID 856

Marks: 4.00

Match **List-I** with **List-II**

List-I (Weed)	List-II (Character)
(A). <i>Xanthium strumarium</i>	(I). Sharp spines
(B). <i>Tribulus terrestris</i>	(II). Scarious bracts
(C). <i>Achyranthus aspera</i>	(III). Sticky glands
(D). <i>Boerhavia repens</i>	(IV). Hooks

Choose the **correct** answer from the options given below;

- 1. (A) - (II), (B) - (I), (C) - (IV), (D) - (III)
- 2. (A) - (IV), (B) - (I), (C) - (II), (D) - (III)
- 3. (A) - (III), (B) - (IV), (C) - (I), (D) - (II)
- 4. (A) - (II), (B) - (IV), (C) - (I), (D) - (III)

- ☐ 1
- ☒ 2 (Chosen Option)
- ☐ 3
- ☐ 4

Question No. 80 / Question ID 835

Marks: 4.00

- ☒ 1 (Chosen Option)
- ☐ 2
- ☐ 3
- ☐ 4

Question No. 81 / Question ID 863

Marks: 4.00

Arrange herbicides in ascending order with respect to their first synthesis

(A). Paraquat

(B). Pretilachlor

(C). Pendimethalin

(D). Simazine

(E). Sulfosulfuron

Choose the **correct** answer from the options given below:

1. (D), (A), (C), (B), (E).
2. (B), (D), (E), (A), (C).
3. (D), (B), (E), (C), (A).
4. (E), (A), (D), (B), (C).

- ☒ 1 (Chosen Option)
- ☐ 2
- ☐ 3
- ☐ 4

Question No. 82 / Question ID 896

Marks: 4.00

The Father of Soil Science and Agricultural Chemistry in India is:

1. Collings
2. Stewart
3. J.B. Lawes
4. J.W. Leather

- ☐ 1
- ☐ 2
- ☐ 3
- ☒ 4 (Chosen Option)

Question No. 83 / Question ID 872

Marks: 4.00

- ☐ 1
- ☐ 2
- ☒ 3 (Chosen Option)
- ☐ 4

Question No. 84 / Question ID 894

Marks: 4.00

In 1843, an agricultural experiment station was established at Rothamsted, England by:

1. J.B. Lawes and J.H. Gilbert
2. J.B. Boussingault
3. Justus von Liebig
4. Mitscherlich

- ☒ 1 (Chosen Option)
- ☐ 2
- ☐ 3
- ☐ 4

Question No. 85 / Question ID 864

Marks: 4.00

Given below are two statements:

Statement (I): An herbicide label is a legal contract between manufacturer, user and regulatory body.

Statement (II): Flowable formulation is an example of liquid formulation.

In light of the above statements, choose the *most appropriate* answer from the options given below.

1. Both Statement (I) and Statement (II) are correct.
2. Both Statement (I) and Statement (II) are incorrect.
3. Statement (I) is correct but Statement (II) is incorrect.
4. Statement (I) is incorrect but Statement (II) is correct.

- ☒ 1 (Chosen Option)
- ☐ 2
- ☐ 3
- ☐ 4

Question No. 86 / Question ID 862

Marks: 4.00

- ☐ 1
- ☒ 2 (Chosen Option)
- ☐ 3
- ☐ 4

Question No. 87 / Question ID 830

Marks: 4.00

Given below are two statements, one is labelled as Assertion (A) and other one labelled as Reason (R).

Assertion (A) : A Global Positioning System (GPS) links spatial data with descriptive information about a particular feature on a map.

Reason (R) : The information is stored as attributes of the geographically represented features.

In light of the above statements, choose the *correct* answer from the options given below.

1. Both (A) and (R) are true and (R) is the correct explanation of (A).
2. Both (A) and (R) are true but (R) is NOT the correct explanation of (A).
3. (A) is true but (R) is false.
4. (A) is false but (R) is true.

- ☐ 1
- ☐ 2
- ☐ 3
- ☒ 4 (Chosen Option)

Question No. 88 / Question ID 909

Marks: 4.00

According to IMD, a day is called as rainy day if the minimum amount of rainfall during a period of 24 hours is :

1. 2.5 cm
2. 5.0 cm
3. 0.25 cm
4. 0.75 cm

- ☒ 1 (Chosen Option)
- ☐ 2
- ☐ 3
- ☐ 4

Question No. 89 / Question ID 836

Marks: 4.00

- ☐ 1
- ☐ 2
- ☐ 3
- ☒ 4 (Chosen Option)

Question No. 90 / Question ID 878

Marks: 4.00

Read the following statements about economization of irrigation water in rice

- (A). Physical characteristics of infiltrating water have no effect on infiltration rate
- (B). The depth of wetting increases the infiltration rate
- (C). Viscosity of water increases infiltration rate hyperbolically
- (D). Pore sizes increase infiltration rate parabolically

Choose the **correct** answer from the options given below:

- 1. A and B only
- 2. D only
- 3. B only
- 4. C and D only

- ☐ 1
- ☐ 2
- ☒ 3 (Chosen Option)
- ☐ 4

Question No. 91 / Question ID 919

Marks: 4.00

The first country which adopted an agroforestry policy

- 1. Nigeria
- 2. India
- 3. Sri Lanka
- 4. Brazil

- ☐ 1
- ☒ 2 (Chosen Option)
- ☐ 3

Question No. 92 / Question ID 802

Marks: 4.00

Nitrogenase

1. Is insensitive to oxygen
2. Contains magnesium
3. Releases two NH_3 molecules as products
4. Requires an aerobic environment

- ☐ 1
- ☐ 2
- ☒ 3 (Chosen Option)
- ☐ 4

Question No. 93 / Question ID 918

Marks: 4.00

The flagship scheme "Swachh Bharat Mission" was launched by Government of India in _____.

1. 1986
2. 1998
3. 2008
4. 2014

- ☐ 1
- ☐ 2
- ☐ 3
- ☒ 4 (Chosen Option)

Question No. 94 / Question ID 854

Marks: 4.00

Dehydrogenase activity is a good index of biological activity of soil because it plays a role in :

1. Carbon metabolism
2. Respiration
3. Synthesis of cell macro-molecules
4. Cell division

- ☒ 1 (Chosen Option)
- ☐ 2
- ☐ 3
- ☐ 4

Question No. 95 / Question ID 821

Marks: 4.00

The instrument used for measuring photosynthetically active radiation (PAR) is

1. Campbell stroke sun shine recorder
2. Pyranometer
3. Line quantum sensor
4. Pyrhelimeter

- ☐ 1
- ☐ 2
- ☒ 3 (Chosen Option)
- ☐ 4

Question No. 96 / Question ID 898

Marks: 4.00

Match **List-I** with **List-II**

List-I (Property)	List-II (Instrument)
(A). Particle density	(I). Wet sieving
(B). Soil moisture suction	(II). Pycnometer
(C). Humidity	(III). Pycnometer
(D). Aggregate stability	(IV). Tentiometer

Choose the **correct** answer from the options given below;

- 1. (A) - (I), (B) - (II), (C) - (III), (D) - (IV)
- 2. (A) - (II), (B) - (III), (C) - (IV), (D) - (I)
- 3. (A) - (III), (B) - (IV), (C) - (II), (D) - (I)
- 4. (A) - (IV), (B) - (I), (C) - (III), (D) - (II)

- ☐ 1
- ☐ 2
- ☒ 3 (Chosen Option)
- ☐ 4

Question No. 97 / Question ID 819

Marks: 4.00

Zn ⁺² is an inorganic activator for enzymes

- 1. Carbonic anhydrase
- 2. Phosphatase
- 3. Chymotryps
- 4. Maltase

- ☒ 1 (Chosen Option)
- ☐ 2
- ☐ 3
- ☐ 4

Question No. 98 / Question ID 813

Marks: 4.00

- ☐ 1
- ☐ 2
- ☒ 3 (Chosen Option)
- ☐ 4

Question No. 99 / Question ID 838

Marks: 4.00

Given below are two statements, one is labelled as Assertion (A) and other one labelled as Reason (R).

Assertion (A) : The water budget in the field is accounting the inputs and outputs of water and also considers the volume of water present in the field.

Reason (R) : The main governing factor in field water budget is the stored soil moisture.

In light of the above statements, choose the *correct* answer from the options given below.

1. Both (A) and (R) are true and (R) is the correct explanation of (A).
2. Both (A) and (R) are true but (R) is NOT the correct explanation of (A).
3. (A) is true but (R) is false.
4. (A) is false but (R) is true.

- ☐ 1
- ☒ 2 (Chosen Option)
- ☐ 3
- ☐ 4

Question No. 100 / Question ID 831

Marks: 4.00

Given below are two statements, one is labelled as Assertion (A) and other one labelled as Reason (R).

Assertion (A) : Mie scattering depends on the size of the scatterers in relation to the wavelength of radiation being scattered.

Reason (R) : Approximate particle size of Mie scatterer is 0.1 to 10 μm .

In light of the above statements, choose the *correct* answer from the options given below.

1. Both (A) and (R) are true and (R) is the correct explanation of (A).
2. Both (A) and (R) are true but (R) is NOT the correct explanation of (A).
3. (A) is true but (R) is false.
4. (A) is false but (R) is true.

- ☒ 1 (Chosen Option)
- ☐ 2
- ☐ 3
- ☐ 4

Question No. 101 / Question ID 841

Marks: 4.00

The matric potential of the soil is the result of :

1. Osmotic action
2. Attraction due to ions
3. Adsorption due to soil solids
4. Attraction due to gravity of earth

- ☐ 1
- ☐ 2
- ☒ 3 (Chosen Option)
- ☐ 4

Question No. 102 / Question ID 849

Marks: 4.00

The disease 'Ear cockle' of wheat is caused by :

1. Fungi
2. Bacteria
3. Virus
4. Nematodes

- ☐ 1
- ☐ 2
- ☐ 3
- ☒ 4 (Chosen Option)

Question No. 103 / Question ID 853

Marks: 4.00

The specificity between legume host and *Rhizobium spp.* is governed by :

1. Flavonoides
2. Tryptophan
3. Polysaccharides
4. Indole acetic acid

- ☒ 1 (Chosen Option)
- ☐ 2
- ☐ 3
- ☐ 4

Question No. 104 / Question ID 888

Marks: 4.00

Rhenania phosphate - a P containing fertilizer contains:

1. 26-27% P_2O_5
2. 28-30% P_2O_5
3. 31-33% P_2O_5
4. 34-36% P_2O_5

- ☒ 1 (Chosen Option)

- ☐ 2
- ☐ 3
- ☐ 4

Question No. 105 / Question ID 866

Marks: 4.00

Match **List-I** (herbicide class) with **List-II** (herbicide group)

List-I	List-II
(A). Weak base herbicide	(I). Sulfonyl ureas
(B). Strong base herbicide	(II). Triazines
(C). Weak acid herbicide	(III). Dintroanilines
(D). Non-ionic herbicide	(IV). Bipyridilliums

Choose the **correct** answer from the options given below:

- 1. (A) - (II), (B) - (IV), (C) - (I), (D) - (III)
- 2. (A) - (IV), (B) - (I), (C) - (II), (D) - (III)
- 3. (A) - (II), (B) - (I), (C) - (IV), (D) - (III)
- 4. (A) - (III), (B) - (IV), (C) - (I), (D) - (II)

- ☐ 1
- ☐ 2
- ☒ 3 (Chosen Option)
- ☐ 4

Question No. 106 / Question ID 890

Marks: 4.00

According to the USDA classification, the size of fine sand fraction is:

- 1. 0.5 mm
- 2. 0.25 mm
- 3. 0.1 mm
- 4. 0.05 mm

- ☐ 1
- ☒ 2 (Chosen Option)
- ☐ 3
- ☐ 4

Question No. 107 / Question ID 823

Marks: 4.00

What is the date of vernal equinox in the northern hemisphere ?

- 1. 22nd December
- 2. 21st March
- 3. 21st June
- 4. 23rd September

- ☐ 1
- ☐ 2
- ☒ 3 (Chosen Option)
- ☐ 4

Question No. 112 / Question ID 882

Marks: 4.00

Given below are two statements:

Statement (I): In Gridiron drainage system, laterals are provided on both sides of mains

Statement (II): The Gridiron drainage system is adopted when the land is practically level or where the land slopes away from the sub-mains on one side and when the entire area has to be drained.

In light of the above statements, choose the *most appropriate* answer from the options given below.

1. Both Statement (I) and Statement (II) are correct.
2. Both Statement (I) and Statement (II) are incorrect.
3. Statement (I) is correct but Statement (II) is incorrect.
4. Statement (I) is incorrect but Statement (II) is correct.

- ☒ 1 (Chosen Option)
- ☐ 2
- ☐ 3
- ☐ 4

Question No. 113 / Question ID 869

Marks: 4.00

Tembotrione is registered for use in _____.

1. Soybean
2. Maize
3. Barley
4. Lentil

- ☐ 1
- ☒ 2 (Chosen Option)
- ☐ 3
- ☐ 4

Question No. 114 / Question ID 855

Marks: 4.00

- ☐ 1
- ☐ 2
- ☒ 3 (Chosen Option)
- ☐ 4

Question No. 115 / Question ID 887

Marks: 4.00

Most bioaccumulator of cadmium (Cd) and lead (Pb) is:

1. Sugar beet
2. Mustard
3. Spinach
4. Cabbage

- ☐ 1
- ☒ 2 (Chosen Option)
- ☐ 3
- ☐ 4

Question No. 116 / Question ID 825

Marks: 4.00

Given below are two statements:

Statement (I): The greenhouse effect is retention of heat in the lower atmosphere due to absorption and re-radiation by clouds and certain gases

Statement (II): Long-wave thermal solar radiation received from the sun passes through the atmosphere with little or no interference and warms the earth's surface.

In light of the above statements, choose the *most appropriate* answer from the options given below.

1. Both Statement (I) and Statement (II) are correct.
2. Both Statement (I) and Statement (II) are incorrect.
3. Statement (I) is correct but Statement (II) is incorrect.
4. Statement (I) is incorrect but Statement (II) is correct.

- ☐ 1
- ☐ 2
- ☒ 3 (Chosen Option)
- ☐ 4

Question No. 117 / Question ID 814

Marks: 4.00

- ☐ 1
- ☐ 2
- ☐ 3
- ☒ 4 (Chosen Option)

Question No. 118 / Question ID 905

Marks: 4.00

The most suitable group of crops for dryland agriculture is :

- 1. Rapeseed-mustard, chickpea
- 2. Berseem, potato
- 3. Sunflower, potato
- 4. Sugercane, peas

- ☒ 1 (Chosen Option)
- ☐ 2
- ☐ 3
- ☐ 4

Question No. 119 / Question ID 844

Marks: 4.00

The HD-2967 is the prominent variety of :

- 1. Wheat
- 2. Chickpea
- 3. Barley
- 4. Potato

- ☒ 1 (Chosen Option)
- ☐ 2
- ☐ 3
- ☐ 4

Question No. 120 / Question ID 877

Marks: 4.00

- ☐ 1
- ☒ 2 (Chosen Option)
- ☐ 3
- ☐ 4

Question No. 108 / Question ID 820

Marks: 4.00

Which of the following vitamins serves as a hormone precursor?

- 1. Vitamin A
- 2. Vitamin C
- 3. Vitamin D
- 4. Vitamin K

- ☐ 1
- ☐ 2
- ☐ 3
- ☒ 4 (Chosen Option)

Question No. 109 / Question ID 901

Marks: 4.00

Accumulation of soluble salts in soil is called as :

- 1. Humification
- 2. Salinization
- 3. Laterization
- 4. Gleization

- ☐ 1
- ☒ 2 (Chosen Option)
- ☐ 3
- ☐ 4

Question No. 110 / Question ID 867

Marks: 4.00

Given below are two statements:

Statement (I): A foot operated sprayer is basically used for orchard and tree spraying.

Statement (II): Hydraulic pressure of 10 kg/cm^2 can be achieved with a foot sprayer which is necessary to project the jet of spray to tall trees.

In light of the above statements, choose the *most appropriate* answer from the options given below.

- 1. Both Statement (I) and Statement (II) are true.
- 2. Both Statement (I) and Statement (II) are false.
- 3. Statement (I) is true but Statement (II) is false.
- 4. Statement (I) is false but Statement (II) is true.

- ☒ 1 (Chosen Option)
- ☐ 2
- ☐ 3
- ☐ 4

Question No. 111 / Question ID 846

Marks: 4.00

- ☒ 1 (Chosen Option)
- ☐ 2
- ☐ 3
- ☐ 4

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NATIONAL TESTING AGENCY
ICAR's All India Entrance Examination July 2023
Final Answer Key

Exam Date : 14.07.2023

Shift : FIRST

Subject : PG - AGRONOMY (5)

Question ID	Correct Option	Question ID	Correct Option	Question ID	Correct Option
801	2	856	2	911	3
802	3	857	2	912	3
803	3	858	1	913	2
804	2	859	1	914	3
805	4	860	1	915	1
806	1	861	1	916	3
807	2	862	2	917	1
808	2	863	1	918	4
809	1	864	3	919	2
810	2	865	1	920	4
811	1	866	1		
812	1	867	1		
813	1	868	2		
814	4	869	2		
815	3	870	1		
816	1	871	3		
817	2	872	2		
818	2	873	1		
819	1	874	4		
820	3	875	4		
821	3	876	1		
822	4	877	2		
823	2	878	2		
824	3	879	3		
825	3	880	4		
826	1	881	2		
827	1	882	4		
828	2	883	3		
829	4	884	1		
830	4	885	2		
831	2	886	1		
832	1	887	3		
833	2	888	2		
834	1	889	1		
835	1	890	2		
836	4	891	1		
837	2	892	2		
838	3	893	4		
839	2	894	1		
840	1	895	3		
841	3	896	4		
842	2	897	1		
843	4	898	3		
844	1	899	2		
845	3	900	1		
846	3	901	2		
847	3	902	3		
848	3	903	1		
849	4	904	4		
850	3	905	1		
851	3	906	4		
852	3	907	1		
853	3	908	1		
854	2	909	3		
855	3	910	3		