

Plastids that contain high concentrations of carotenoid pigments rather than chlorophyll pigments are

#### **Options:**

- 1. Leucoplasts
- 2. Chromoplasts
- 3. Amyloplasts
- 4. Chloroplasts

5.

Answer: Chromoplasts

• Question No. 2

Given below are two statements:

#### Statement I

Nutrients that are important in energy storage reactions are often present in plant tissues.

## Statement II Prepare 2 1/0 Faster

Some virus-induced plant diseases may produce symptoms similar to those of nutrient deficiencies.

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

## **Options:**

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

5.

Answer: Both Statement I and Statement II are true



The technique of growing plants with their roots suspended in air without soil is called

#### **Options:**

- 1. Phytotronics
- 2. Aeroponics
- 3. Hydroponics
- 4. Aerosols

5.

Answer : Aeroponics

• Question No. 4

Given below are two statements:

#### Statement I

Potassium is accumulated passively by both the cytosol and vacuole when extracellular K\* concentrations are very low in which case it is taken up actively.

## Statement II Prepare 5 U/o Faster

Nitrogen is an important element that participates in the opening and closing of stomata.

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

#### **Options:**

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

5.

Answer: Statement I is correct but Statement II is false



Given below are two statements:

#### Statement I

ATP synthase produces ATP as protons diffuse back through it from the lumen into the stroma.

#### Statement I

Malate and aspartate are carboxylation products of the C3 cycle.

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

#### **Options:**

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

5.

Answer: Statement I is correct but Statement II is false

• Question No. 6 repare 2 1/0 Faster

Triose phosphate is formed in the reduction step of

#### **Options:**

- 1. Hatch and Slack cycle
- 2. Calvin cycle
- 3. Oxidative photosynthetic carbon cycle
- 4. CAM

5.

Answer: Calvin cycle



The point at which CO2 uptake exactly balances CO2 release is called

#### **Options:**

- 1. Quantum yield
- 2. Solar tracking
- 3. Light compensation point
- 4. Threshold point

5.

Answer: Light compensation point

Question No. 8
Which of the following is not zymogen?
Options:
1. Pepsinogen
2. Trypsinogen
3. Procarboxy peptidase
4. Pyrrolidine
5.

Answer: Pyrrolidine

• Question No. 9

Each turn of B-oxidation spiral generates two reduced coenzymes in the form of

## **Options:**

- 1. Two NADH moles
- 2. Two FADH2 moles
- 3. One NADH and one FADH2 moles
- 4. One NADH2 and one GTP moles

5.



Answer: One NADH and one FADH2 moles

• Question No. 10

Chemiosmotic theory was first put forward by

#### **Options:**

- 1. Peter Mitchell
- 2. Paul Boyer
- 3. John Walker
- 4. Julius Sachs

5.

Answer: Peter Mitchell

Question No. 11

Which of the following is released during conversion of succinate to fumarate in TCA cycle?

## **Options:**

1. CO\_2 repare 5 0 / 6 Faster

3. H\_2 O

4. ATP

5.

Answer: FADH\_2

• Question No. 12

Desmotubules are identified in which of the following organelles

#### **Options:**

1. Golgi bodies



- 2. Endoplasmic reticulum
- 3. Cytoskeleton
- 4. Plasmodesmata

5.

Answer: Plasmodesmata

• Question No. 13

Rate of transpiration in crop plants is maximum during

#### **Options:**

- 1. Morning
- 2. Little before noon
- 3. Afternoon
- 4. Evening

5.

Answer: Little before noon

• Question No. 14 repare 5 6 Faster

Match list I with list II

| List I                         | List II                            |
|--------------------------------|------------------------------------|
| A. Protein legend interactions | I. IRGA                            |
| B. Rate of photosynthesis      | II. Planimeter                     |
| C. Transpiration rate          | III. Isothermal titration colorime |
| D. Leaf area                   | IV. Porometer                      |

Choose the correct answer from the options given below:

## **Options:**



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

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

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

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

5.

Answer: A-III, B-I, C-IV, D-II

• Question No. 15

Maggots enter the stem and feed on the growing point of the central shoot and the attacked tiller is converted into a shining tubular structure called "Silver shoot". It is due to which of the following pests?

#### **Options:**

- 1. Rice Gundhi bug
- 2. Rice root weevil
- 3. Gall midge
- 4. Rice hispa

5.

Answer: Gall midge e pare To Faster

• Question No. 16

Match list I with list II



| List I                     | List II                    |
|----------------------------|----------------------------|
| (Disease)                  |                            |
|                            | (Control Measure)          |
| A. Blast of foxtail millet | I. Wettable sulphur (0.3%) |
| B. Rust of foxtail millet  | II. Mancozeb (0.2%)        |
| C. Downy mildew of         | III. Carboxin (1 g)        |
| foxtail millet             |                            |
| D. Head smut of Kodo       | IV. Ridomil (MZ)           |
| millet                     |                            |

Choose the correct answer from the options given below:

## Options:

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

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

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

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

E Prepare 50% Faster

Answer: A-II, B-I, C-IV, D-III

## • Question No. 17

How many stereoisomers does a ketopentose have?

## **Options:**

1. 4

2. 6

3.8

4.10

5.



Answer: 4

• Question No. 18

An amino acid induced during moisture stress condition and also known as stress indicator is

## **Options:**

- 1. Serine
- 2. Tryptophan
- 3. Glycine
- 4. Proline

5.

Answer : Proline

• Question No. 19

Match list I with list II

| List I            | List II                    |
|-------------------|----------------------------|
| A. Phototropism   | I. Bending towards soil    |
| B. Geotropism     | II. Response to day        |
|                   | length                     |
| C. Thigmotropism  | III. Bending towards light |
| D. Photoperiodism | IV. Touch me not           |

Choose the correct answer from the options given below:

## **Options:**

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

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

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

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



5.

Answer: A-III B-I, C-IV, D-II

• Question No. 20

The important event in the early history of agriculture started in 4400 BC

- A. Domestication of sheep
- B. Wheat and Barley cultivation
- C. Maize cultivation
- D. Potato cultivation
- E. Rice cultivation

Choose the correct answer from the options given below

#### **Options:**

- 1. C only
- 2. A & B only
- 3. C & D only 20012 0 10 F05[2]
- 4. A & E only

5.

Answer: Conly

- Question No. 21
  - ICAR Central Research Institute for Dryland Agriculture is located at

## **Options:**

- 1. Jodhpur
- 2. Hyderabad
- 3. Rajahmundry



4. Bikaner

5.

Answer: Hyderabad

• Question No. 22

First operational Indian Remote Sensing satellite IRS-1A was launched in the year

#### **Options:**

1.1988

2.1989

3. 1999

4. 1991

5.

Answer: 1988

• Question No. 23

The NAVSTAR Global Positioning System is maintained by

## Options:

- 1. Japan Space Agency
- 2. Indian Space Research Organization
- 3. USA Department of Defence
- 4. European Space Agency

5.

Answer: USA Department of Defence

• Question No. 24

Given below are two statements:

Statement I



A vector in a GIS system is the graphic or visual data model

#### **Statement II**

ARC-INFO is a GIS Software.

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

### **Options:**

- 1. Both statement I and Statement II are true
- 2. Both statement I and statement II are false
- 3. Statement I is correct but statement II is false
- 4. Statement I is incorrect but statement II is true

5

Answer: Both statement I and Statement II are true

• Question No. 25

Given below are two statements:

#### Statement I

A remote sensing system that possesses only a sensor and depends on an external source to irradiate the target to be called an active remote sensing system

#### **Statement II**

INSAT series of satellites are polar-orbiting satellites.

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

## **Options:**

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

5.



Answer: Both Statement I and Statement II are false

• Question No. 26

CAM plants are adapted to which type of environment?

#### **Options:**

- 1. Humid
- 2. Perhumid
- 3. Arid
- 4. Monsoon

5.

Answer: Arid

Question No. 27

Given below are two statements

#### Statement I

A Species is generally defined as a uniform interbreeding population spread over time and space

#### Statement II

A community is a group of populations of different species in a given area

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

#### **Options:**

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

5.

Answer: Both Statement I and Statement II are true



What will be the effect of tillage on the thermal conductivity of soil?

#### **Options:**

- 1. Remain unchanged
- 2. Decreases
- 3. Increases
- 4. First increases then decrease

5.

Answer: Decreases

• Question No. 29

Maximum emission of radiation from the sun takes place at the wave length

#### **Options:**

1. 0.45 um

2. 0.55 Dm

3. 0.90 um (e) 0 (fe) 2 (fe) 5 (fe) 6 (fe) 5 (fe) 6 (fe) 6

4. 1.0 pm

5.

Answer: 0.45 um

• Question No. 30

Given below are two statements:

#### Statement I

Circulation of air over tropics is dominated by Hadley cell and Walker cell

#### **Statement II**

Hadley cell is associated with N-S direction and Walker cell is associated with E-W direction



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

#### **Options:**

- 1. Both statement I and Statement II are true
- 2. Both statement I and statement II are false
- 3. Statement I is correct but statement II is false
- 4. Statement is incorrect but statement II is true

5.

Answer: Both statement I and Statement II are true

• Question No. 31

Given below are two statements:

#### Statement I

If the ozone concentration decreases in the atmosphere, more UV radiation will reach the earth's surface

#### **Statement II**

The adverse effect of 1°C in temperature can be compensated by increasing CO2 concentration up to 600 ppm.

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

#### **Options:**

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

5.

Answer: Both Statement I and Statement II are true



In which year did the ICAR-National Bureau of Soil Survey and Land Use Planning (ICAR-NBSS & LUP) categorize India into different Agro-Ecological regions (AERS) for the first time?

#### **Options:**

- 1.1996
- 2.1997
- 3. 1998
- 4.1999
- 5.

Answer: 1999

• Question No. 33

Given below are two statements:

#### Statement I

A heat unit is the departure from the mean daily temperature below the maximum temperature.

#### **Statement II**

Q10 is the ratio of the rate of a process at a certain temperature to that at a temperature 10 °C lower.

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

## **Options:**

- 1. Both Statement I and Statement II are true
- 2. Both statement I and statement II are false
- 3. Statement I is correct but Statement II is false
- 4. Statement I is incorrect but Statement II is true

5.

Answer: Statement I is incorrect but Statement II is true



The science that deals with the aspects of meteorology having direct relevance to agriculture is called

## **Options:**

- 1. Atmospheric Sciences
- 2. Environmental Science
- 3. Agrometeorology
- 4. Earth Science

5.

Answer: Agrometeorology

• Question No. 35

Match List I with list II

| List I                | List II            |
|-----------------------|--------------------|
| A. PAR                | I. Pluviometer     |
| B. Canopy temperature | II. Quantum sensor |
| C. Rainfall           | III. Wind vane     |
| D. Wind direction     | IV. IR-thermometer |
| = Prepare <b>J</b> (  | J/o Faster         |

Choose the correct answer from the options given below

### **Options:**

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

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

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

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

5.

Answer: A-II, B-IV, C-I, D-III



Ozone concentration in the atmosphere is reduced by

## **Options:**

- 1. CO\_2 and O\_2
- 2. H\_2S and CH\_4
- 3. CFC and CI\_2
- 4. N\_2 and N\_2 0

5.

Answer: CFC and CI\_2

• Question No. 37

For the analysis of variance of data from plot sampling in a CRD with 't' treatments, 'r' replications and 's' sampling units per plot, sampling error will be

#### **Options:**

- 1. (r-1)(s-1)
- 2. rt(s-1)
- 3. r(st-1)
- 4. t(r-1)(s-1) (e) 0 (re2) (Jo Faster)

5.

Answer: rt(s-1)

• Question No. 38

Arrange the sequence of steps involved in the procedure for construction of ANOVA in Latin Square Design

- A. Arrange the raw data according to their row and column designation with corresponding treatments specified for each observation
- B. Outline analysis of variance table
- C. Compute F value



- D. Compute DF for each source of variation, CF and the various sum of squares and MSS
- E. Compute CV

Choose the correct answer from the options given below

## **Options:**

- 1. A-B-D-C-E
- 2. A-D-B-C-E
- 3. B-A-D-E-C
- 4. A-B-C-D-E
- 5.

Answer: A-B-D-C-E

• Question No. 39

What will be the error d.f. for a R.B.D. field experiment with 8 treatments and 3 replications?

#### **Options:**

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- 3. 14
- 4. 24

5.

Answer: 14

• Question No. 40

NDVI of a crop can be measured by using

#### **Options:**

- 1. Leaf colour chart
- 2. Chlorophyll meter



- 3. Green Seeker
- 4. Canopy analyser

5.

Answer: Green Seeker

• Question No. 41

Which one of the following is NOT a quality parameter of rice grain?

#### **Options:**

- 1. Milling quality
- 2. Cooking quality
- 3. Eating quality
- 4. Curing quality

5.

Answer: Curing quality

• Question No. 42

Calculate the plant population of maize in 6000 m<sup>2</sup> area, if it is sown at a spacing of 60cm × 25 cm

## **Options:**

- 1. 40, 000 plants
- 2. 50,000 plants
- 3. 60, 000 plants
- 4. 10,0000 plants

5.

Answer: 40, 000 plants

• Question No. 43

Given below are two statements:



#### Statement I

Crop sequences involving cereals and pulses are commonly followed under the irrigated agro-ecosystem in the southern region of Indian sub-continent

#### Statement II

One of the prominent cropping sequences followed in the irrigated agro-ecosystem of southern India is rice-rice-green gram.

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

#### **Options:**

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

5

Answer: Both Statement I and Statement II are true

• Question No. 44 Prepare 5 0 Faster

| List I             | List II                |
|--------------------|------------------------|
| A. Finger millet   | I. Panicum miliaceum   |
| B. Barnyard millet | II. Paspalum           |
|                    | scorbiculatum          |
| C. Kodo millet     | III. Eleusine coracana |
| D. Proso millet    | IV. Echinocloa         |
|                    | frumentacea            |

Choose the correct answer from the options given below



## **Options:**

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

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

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

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

5.

Answer: A-III, B-IV, C-II, D-I

• Question No. 45

Given below are two statements:

#### Statement I

Ginning percentage, colour, trash, fibre quality, and fibre length are the important commercial value parameters of

#### **Statement II**

Ribboning, retting and extraction are the quality determining factors of cotton

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

#### **Options:**

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

5.

Answer: Both Statement I and Statement II are false

• Question No. 46

Given below are two statements:

Statement I



Seedling blight, collar rot, stem rot, and root rot are the important fungal diseases of jute crop

#### **Statement II**

Anthracnose is a major bacterial disease of jute.

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

#### **Options:**

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

5

Answer: Statement I is correct but Statement II is false

• Question No. 47

Monocropping of tobacco is always discouraged as

A. it leads to the development of Pest and disease complex

B. it decreases soil fertility

C. it reduces germination of crops

D. it leads to crop failure due to water stress

E. curing becomes difficult

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

#### **Options:**

- 1. A & B only
- 2. A & C only
- 3. A only
- 4. D & E only



5.

Answer: A & amp; B only

#### • Question No. 48

Calculate the plant population of sugarcane in 1 ha area, if planted in paired row spacing of 60/120 cm and the number of canes in 4-metre row length is 50.

#### **Options:**

1.1,35,000

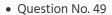
2.1,38,888

3. 1,39.888

4.1,40,888

5.

Answer : 1,38,888



Match List I with List II

| List I     | List II (Pulse        |
|------------|-----------------------|
| (Year)     | production in million |
|            | tonnes)               |
| A. 2014-15 | I. 17.15              |
| B. 2015-16 | II. 16.35             |
| C. 2016-17 | III. 25.41            |
| D. 2017-18 | IV. 23.13             |

Choose the correct answer from the options given below

## **Options:**

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



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

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

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

5.

Answer: A-I, B-II, C-IV, D-III

• Question No. 50

Which one of the following is NOT a variety of Chickpea?

#### **Options:**



Answer: IPM 02-3

# • Question No. 51 repare D Vo Faster

Match List I with List II

| List I         | List II (Variety) |
|----------------|-------------------|
| (Fodder Crops) |                   |
| A. Oats        | I. NB 21          |
| B. Berseem     | II. African Giant |
| C. Maize       | III. Kent         |
| D. Napier      | IV. Mescavi       |

Choose the correct answer from the options given below:

#### **Options:**

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

C. Seed husk



|   |  | ориго |
|---|--|-------|
|   | 2. A-I, B-III, C-IV, D-II  |       |
|   | 3. A-III, B-IV, C-II, D-I  |       |
|   | 4. A-III, B-II, C-IV, D-I  |       |
|   | 5.   |       |
|   | Answer : A-III, B-IV, C-II, D-I  |       |
| • | Question No. 52  |       |
|   | Given below are two statements:  |       |
|   | Statement I  |       |
|   | India ranks 1st in the global market of essential oils of aromatic plants                      |       |
|   | Statement II   |       |
|   | Production of essential oils of aromatic plants ranges from 22,000 to 23,000 t/year.           |       |
|   | In light of the above statements, choose the most appropriate answer from the options given be | low:  |
|   | Options:   |       |
|   | · ·  |       |
|   | 1. Both Statement I and Statement II are true  |       |
|   | 2. Both Statement I and Statement II are false   |       |
|   | 3. Statement I is correct but Statement II is false  |       |
|   | 4. Statement I is incorrect but Statement II is true   |       |
|   | 5.   |       |
|   | Answer : Both Statement I and Statement II are true  |       |
| • | Question No. 53  |       |
|   | Useful part of Plantago (Psyllium) is  |       |
|   | A. Root  |       |
|   | B. Shoot   |       |
|   |  |       |



D. Leaves

Choose the correct answer from the options given below

## **Options:**

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

5.

Answer: Conly

• Question No. 54

Branching and pod formation are the most critical stages for irrigation in

- A. Cereal crops
- B. Pulse crops

C. Pulses and Forage crops

D. Medicinal crops

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E. Aromatic plants

Choose the correct answer from the options given below:

#### **Options:**

1. B only

2. B & C only

3. A & D only

4. D & E only

5.

Answer: B only



#### Match List I with list II

| List I        | List II                                     |
|---------------|---|
| (Crop)        | (Origin)                                    |
| A. Safflower  | I. The Southwest United States and Mexico   |
| B. Sunflower  | II. Indian sub-Continent                    |
| C. Soybean    | III. The Mediterranean and the Persian Gulf |
| D. Green gram | IV. China                                   |

Choose the correct answer from the options given below

## **Options:**

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

2. A-I, B-, C-IV, D-II

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

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

5.

Answer: A-III, B-I, C-IV, D-II

#### • Question No. 56

Which of the following is a ceremonial weed?

## **Options:**

- 1. Cynodon dactylon
- 2. Melilotus alba
- 3. Chorchorus capsularis
- 4. Mentha spicata

5.

Answer: Cynodon dactylon



Which of the following weeds has a cup-shaped corolla?

#### **Options:**

- 1. Avena ludoviciana
- 2. Convolvulus arvensis
- 3. Chenopodium album
- 4. Cyprus rotundus

5.

Answer: Convolvulus arvensis

• Question No. 58

Weeds propagating through tubers

#### **Options:**

- 1. Cyperus rotundus
- 2. Cirsium arvens
- 3. Allium vineale
- 4. Cynodon dactylon

5.

Answer: Cyperus rotundus

• Question No. 59

Which among the following phenomenon directly affects crop growth and yield?

#### **Options:**

- 1. Competition for nitrogen
- 2. Competition for water
- 3. Competition for carbon dioxide

2. A-B-C-D-E



| 4. Allelopathy   |
|--|
| 5.   |
| Answer: Allelopathy  |
| • Question No. 60  |
| Which of the following causes a 'resource' influencing competition in a weed-crop environment. |
| Options:   |
| 1. pH  |
| 2. Bulk density  |
| 3. Water holding capacity  |
| 4. Phosphorus  |
| 5.   |
| Answer : Phosphorus  |
| • Question No. 61  |
| Chronology in the grass-weed growth stages is  |
| A. Booting   |
| B. Tillering   |
| C. Anthesis  |
| D. Dough   |
| E. Seedling  |
| Choose the correct answer from the option given below  |
| Options:   |
| 1. E-B-A-C-D   |



3. D-A-B-E-C

4. E-D-C-D-A

5.

Answer: E-B-A-C-D

• Question No. 62

Chronological development in commercial use of herbicide is

- A. Triazines
- B. Phenoxyalkanoic acids
- C. Dinitroanilines
- D. Sulfonylureas
- E. Phenoxy (aryloxy) propionates

Choose the correct answer from the options given below

## **Options:**

1. E-B-A-C-Debare 200 Faster

2. A-B-C-D-E

3. B-A-D-E-C

4. B-C-A-E-D

5.

Answer: B-C-A-E-D

• Question No. 63

The first confirmed occurrence of herbicide resistant strain of a weed species in US was associated with

#### **Options:**

1. ALS inhibitors



- 2. Bipyridillium
- 3. Glycines
- 4. Triazines

5.

**Answer: Triazines** 

• Question No. 64

The highest number of resistant weeds are associated with which group of herbicides?

## **Options:**

- 1. Dinitroanilines
- 2. Bipyridilliums
- 3. Synthetic auxins
- 4. Triazines

5.

Answer: Triazines



The most commonly used method of herbicide application in India is

## **Options:**

- 1. Spraying
- 2. Sand application
- 3. Cut and stump
- 4. Band placement

5.

Answer: Spraying



The important biological control insect for Parthenium hysterophorus in India is

#### **Options:**

- 1. Zygogramma bicolorata
- 2. Teleonemia scrupulosa
- 3. Sida latifolia
- 4. Orsioliella javanica

5.

Answer: Zygogramma bicolorata

• Question No. 67

The effective post-emergence control of Ageratum houstonianum can be achieved with

Options:

- 1. Atrazine @3.5 kg ha-1
- 2. Pendimethalin @ 1.5 kg ha-1
- 3. Alachlor @ 2.0 kg ha-1
- 4. Thiobencarb @ 1.0 kg ha-1

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Answer: Atrazine @3.5 kg ha-1

• Question No. 68

Parthenium Awareness Week in India during the month of August each year is coordinated / organized by which directorate/institute of ICAR?

#### **Options:**

- 1. ICAR-DWR, Jabalpur
- 2. ICAR-IARI, New Delhi
- 3. ICAR-CSSRI, Karnal
- 4. ICAR-IIFSR, Modipuram



5.

Answer: ICAR-DWR, Jabalpur

• Question No. 69

Electron transport inhibition in PS-II (Photosystem II) for herbicidal action is observed in

## **Options:**

- 1. Nitriles
- 2. Ureas
- 3. Triazines
- 4. All the above

5

Answer : All the above

• Question No. 70

The formulation of 2, 4-D which is absorbed faster by plants is

# Options: Prepare 5 0% Faster

- 1. Ethyl ester
- 2. Na salt
- 3. Amine salt
- 4. Isopropyl amine

5.

Answer : Ethyl ester

• Question No. 71

The mode of herbicide action wherein the weed plants are bleached white, is caused by which of the following herbicides?



## **Options:**

- 1. Atrazine
- 2. Clodinafop propargyl
- 3. Pendimethalin
- 4. Tembotrione

5.

Answer: Tembotrione

• Question No. 72

Post-emergence herbicide for weed management in rice is

#### **Options:**

- 1. Butachlor
- 2. Bispyribac sodium
- 3. Thiobencarb
- 4. Nitrofen

5.

Answer : Bispyribac sodium

• Question No. 73

A weed with short-lived blue coloured flowers is

## **Options:**

- 1. Erigeron canadensis
- 2. Echinochloa colona
- 3. Avena ludoviciana
- 4. Commelina benghalensis

5.

Answer : Commelina benghalensis



What is the amount of Topik 10% WP required for 4000 m<sup>2</sup> wheat field if the rate of application of Clodinafop-propargyl is 60 g ha<sup>11</sup>?

## **Options:**

- 1.120 g
- 2. 240 g
- 3. 480 g
- 4.600 g

5.

Answer: 240 g

• Question No. 75

Which of the following weeds is a holo root-parasite?

#### **Options:**

- 1. Loranthus
- 2. Striga repare 2 1/0 Faste
- 3. Orobanche
- 4. Cuscuta

5.

Answer : Orobanche

• Question No. 76

Which of the following irrigation methods is most suitable for the wheat crop?

#### **Options:**

- 1. Sprinkler
- 2. Drip



- 3. Bubler
- 4. Drumkit

5.

Answer: Sprinkler

• Question No. 77

Which amongst the following is a commonly used method for determining soil moisture constant under laboratory conditions?

## **Options:**

- 1. Tensiometer
- 2. Neutron probe
- 3. Gypsum block
- 4. Pressure plate membrane apparatus

5.

Answer: Pressure plate membrane apparatus

• Question No. 78 repare 5 7 Faster

Calculate the water conveyance efficiency if water delivered to the farm is 84 mm and water diverted from the source is 140 mm.

## **Options:**

- 1.50%
- 2.60%
- 3.70%
- 4.80%

5.

Answer: 60%



|  | • | Ou | estion | No. | 79 |
|--|---|----|--------|-----|----|
|--|---|----|--------|-----|----|

Match List 1 with List II

List I

List II

- A. Parallel system
- I. Junction box
- B. Grouping system
- II. Bedding system
- C. Special drains
- III. Mixed system
- D. Surface drains
- IV. Grid system

Choose the correct answer from the options given below



## **Options:**

- 1. A-IV; B-III; C-I; D-II
- 2. A-III; B-II; C-I; D-IV
- 3. A-I; B-II; C-III; D-IV
- 4. A-IV; B-II; C-III; D-I

5.

Answer: A-IV; B-III; C-I; D-II

• Question No. 80

Given below are two statements:



#### **Statement I:**

Waterlogging causes injury to crops due to low oxygen content and accumulation of hydrocarbon gases, hydrogen sulphide, and carbon dioxide

#### **Statement II:**

Ethanol production and activity of dehydrogenase decreases in roots of waterlogged plants

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

#### **Options:**

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

5

Answer: Statement I is correct but Statement II is false

• Question No. 81

Match List 1 with List II

| List I (Crop) | List II (Water |
|---------------|----------------|
|               | requirement)   |
| A. Rice       | I. 400 mm      |
| B. Wheat      | II. 300 mm     |
| C. Groundnut  | III. 600 mm    |
| D. Pulses     | IV. 1200 mm    |

Choose the correct answer from the options given below

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1. A-II; B-IV; C-1; D-III

2. A III; B-IV; C-II; D-I

3. A-II; B-III; C-IV; D-I

4. A-IV; B-III; C-I; D-II

5.

Answer: A-IV; B-III; C-I; D-II

# • Question No. 82

Identify the correct order of the following methods of irrigation as per their water-use efficiency from the maximum to minimum efficiency.

## **Options:**

- 1. Continuous flowing > Flooding > Cablegation > Bubbler
- 2. Bubbler > Cablegation> Flooding > Continuous flowing
- 3. Cablegation> Flooding > Bubbler > Continuous flowing
- 4. Bubbler > Flooding > Continuous flowing > Cablegation

5.

Answer: Bubbler > Cablegation> Flooding > Continuous flowing

# • Question No. 83

An area of 0.5 ha each of groundnut and sunflower is irrigated every day with a discharge of 1500 l/min to the farm for 24 hr.Each crop receive 10 cm of water. What will be the efficiency of the irrigation system

#### **Options:**

1.45.30 %

2.58.23 %

3. 46.30%

4. 48.21%

5.

Answer: 46.30%



#### Match List I with List II

| List I                   | List II                 |
|--------------------------|-------------------------|
| A. Feroze Shah Tughlaq's | I. Eastern Yamuna Canal |
| rule                     |                         |
| B. Mughal rule           | II. Ganga Canal Project |
| C. Rangila Mohammad Shah | III. Western Yamuna     |
| rule                     | Canal                   |
| D. Sir Aukland's Tenure  | IV. Ground Water        |
|                          | Resources               |

Choose the correct answer from the options given below

#### Options:

1. A-I; B-II; C-IV; D-III

2. A-III; B-IV; C-I; D-II

3. A-II; B-III; CI; D-IV

4. A-IV; B-II; C-III; D-I

5.

Answer : A-III; B-IV; C-I; D-II

• Question No. 85

Match List I with List II



| List I   | List II                               |
|--|---------------------------------------|
| (Method of determining hydraulic conductivity)   | (Expression)                          |
| A. Auger hole method for determining hydraulic conductivity (K)                            | I.4K(b²-a2)/q                         |
| B. Pipe cavity method for determining field hydraulic conductivity (K)                     | II. 523000 a² log 10 (Yo-Y₁)/At       |
| C. Constant head permeameter for determining<br>hydraulic conductivity in a laboratory (K) | III. T r <u>ln</u> (Yo-Y1)/[S(t2-t1)] |
| D. Spacing between drains (S)  | IV. qx L/[A X tx AH]                  |

Choose the correct answer from the options given below

## Options:



Answer: A-B-III; C- IV; D-I

• Question No. 86 repare Do Faster

Given below are two statements:

#### **Statement I:**

Single superphosphate, double superphosphate, and triple superphosphate are monocalcium phosphates

#### **Statement II:**

Monocalcium phosphates are water-soluble and thus have high leaching losses

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 correct but Statement II is false
- 4. Statement I is incorrect but Statement II is true

5.

Answer: Statement I is correct but Statement II is false

• Question No. 87

Benzoquinones and quinones are

## **Options:**

- 1. Slow-release N fertilizers
- 2. Nitrification inhibitors
- 3. Urease inhibitors
- 4. All the above

5.

Answer: Urease inhibitors

Question No. 88

Given below are two statements:

Statement I: Organic manures contain a low amount of nutrients and are applied in large quantities

Statement II: Nutrient fractions in organic manures are in organic nature only

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

# **Options:**

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

5.



| Answer : Statement           | is c   | orrect but | Statemen | t II | is false |
|------------------------------|--------|------------|----------|------|----------|
| A113 W C1 . 3 Late 111 C11 L | . 13 ( | JOHECL DUL | Julien   | L II | 13 1413  |

|     | $\overline{}$ |     |     |    |    | ~~ |
|-----|---------------|-----|-----|----|----|----|
| • 1 | Oυ            | est | ıor | ١N | O. | 89 |

First case of Herbicide resistance in India was observed in\_\_\_\_ crop against \_\_\_\_\_ herbicide

#### **Options:**

- 1. Rice against pendimethalin
- 2. Wheat against isoproturon
- 3. Rice against isoproturon
- 4. Wheat against pendimethalin

5.

Answer: Wheat against isoproturon

• Question No. 90

A solution contains 1/10000 moles/I H+ ions. What is the concentration of hydroxyl ions in this solution?

## **Options:**

- 1. 10^-10 moles/litre
- 2.10^-4 moles/litre
- 3. 10^10 moles/litre
- 4. 10^4 moles/litre

5.

Answer: 10^-10 moles/litre

• Question No. 91

Given below are two statements:

#### **Statement I:**

Ammonium sulphate can supply nitrogen, calcium and sulphur to crops

#### **Statement II:**



Ammonium sulphate is the most suited nitrogen fertilizer for acidic soils.

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

# **Options:**

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

5.

Answer: Both Statement I and Statement II are false

• Question No. 92

Match list 1 with list II

| List I                  | List II        |
|-------------------------|----------------|
| A. Blossom end rot      | I. Cd          |
| B. Itai-Itai disease    | II. Ca         |
| C. Marsh spot of bean   | III. Mo Factor |
| D. Whip-tail disease of | IV. Mn         |
| cauliflower             |                |

Choose the correct answer from the options given below:

## **Options:**

1. A-IV; B-II; C-III; D-

2. A-II; B-I; C-IV; D-III

3. A-II; B-IV; C-III; D-I

4. A-II; B-IV; C-I; D-III

5.

Answer: A-II; B-I; C-IV; D-III



| • | Ou | estion | No. | 93 |
|---|----|--------|-----|----|
|   |    |        |     |    |

Nutrient index approach of soil fertility evaluation was proposed by

#### **Options:**

- 1. Liebig
- 2. Parker
- 3. Mehlich
- 4. Piper

5.

Answer: Parker

• Question No. 94

Which of the following indicates a situation of hidden hunger in plants?

#### **Options:**

- 1. Plant expresses nutrient deficiency symptoms when a nutrient is deficient
- 2. Plant registers severe yield reduction without expressing deficiency symptoms
- 3. Plant nutrient is in sufficient quantity but seems to be deficient
- 4. Plant is unable to express symptoms due to other elements

5.

Answer: Plant registers severe yield reduction without expressing deficiency symptoms

• Question No. 95

The concentration of macronutrients in dry plant tissues is

- 1. Less than 0.1 percent
- 2. More than 0.1 percent
- 3. Less than 0.01 percent



4. More than 0.01 percent

5.

Answer: More than 0.1 percent

• Question No. 96

Match List 1 with List II

| List I               | List II         |
|----------------------|-----------------|
| A. Law of Minimum    | I. Mitscherlich |
| B. $dy/dx = (A-y) C$ | II. Spillman    |
| C. y = M (1-R)       | III. Baule      |
| D. Percent yield     | IV. Liebig      |

Choose the correct answer from the options given below:

## **Options:**

1. A-III; B-II; C-IV; D-I

2. A IV; B-I; C-II; D-III

3. A IV; B-III; C-I; D-II

4. A-III; B-II; C-I; D-III

5.

Answer : A IV; B-I; C-II; D-III

• Question No. 97

In soil plaque method of soil fertility assessment developed by Winogradsky, which micro organism is studied?

- 1. Azotobacter
- 2. Aspergillus
- 3. Both Azotobecter and Aspergillus



4. Pseudomonas

5.

Answer: Azotobacter

• Question No. 98

Which of the following is not a 1:1 type clay mineral?

#### **Options:**

- 1. Kaolinite
- 2. Halloysite
- 3. Nontronite
- 4. Chlorite

5.

Answer : Chlorite

• Question No. 99

What amount of Urea, SSP, and MOP is required for application in the wheat crop at the rate of 120, 64, 30 kg N, P2

O5 and K2O har<sup>-1</sup>?

## **Options:**

- 1. 261; 400 and 50 kg Urea, SSP and MOP
- 2. 130; 200 and 50 kg Urea, SSP and MOP
- 3. 261; 200 and 25 kg Urea, SSP and MOP
- 4. 261: 100 and 25 kg Urea, SSP and MOP

5.

Answer: 261; 400 and 50 kg Urea, SSP and MOP

• Question No. 100

The fertilizer phosphorus use efficiency under optimum condition is



# **Options:**

- 1.10-15%
- 2.15-20%
- 3. 20-25%
- 4. 25-30%

5.

Answer: 15-20%

• Question No. 101

Moisture availability index of 0.34 to 0.67 indicates which of the following class?

## **Options:**

- 1. Very deficient
- 2. Moderate deficient
- 3. Excessive moisture
- 4. Adequate moisture

5

Answer : Moderate deficient

• Question No. 102

NIASM is located at

# **Options:**

- 1. Baramati
- 2. Nagpur
- 3. Ranchi
- 4. Jaipur

5.

Answer: Baramati



Arrange the following major events in dryland agriculture research in chronological order of their establishment

- A. ICRISAT
- B. AICRP-DA
- C. ORPS
- D. KVK
- E. CRIDA

Choose the correct answer from the options given below Options:

1. B-A-C-D-E

2. A-B-C-D-E

3. B-C-A-E-D

4. C-D-E-A-B

Answer: B-A-C-D-E

• Question No. 104

When an abnormal failure of rainfall occurs, the type of drought is referred as

## **Options:**

- 1. Seasonal drought
- 2. Contingent drought
- 3. Invisible drought
- 4. Atmospheric drought

5.

Answer: Contingent drought



Awned varieties give more yield under drought situations as compared to awnless varieties and the contribution of awns in photosynthesis to grain is

# **Options:**

- 1.5%
- 2.10%
- 3.12%
- 4.15%

5.

Answer: 12%

• Question No. 106

Match List I with List II



| List I              | List II        |
|---------------------|----------------|
| A. Stomatal closing | I. Silicon     |
| B. Film-forming     | II. PMA FOSTER |
| C. Reflectant       | III. Cycocel   |
| D. Growth retardant | IV. Kaolin     |

Choose the correct answer from the options given below

# **Options:**

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

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

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

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

5.

Answer : A-II, B-I, C-IV, D-III



Under dryland farming situation which practice is most prominent?

## **Options:**

- 1. Single cropping
- 2. Double cropping
- 3. Relay cropping
- 4. Multiple cropping

5.

Answer: Single cropping

• Question No. 108

Given below are two statements:

# Statement I

As per IMD investigation, drought in Assam is very rare and occurs once in 15 years

#### **Statement II**

In Gujarat and Kashmir, its period of occurrence is once in eight years whereas in West Bengal and Bihar once in ten

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

#### **Options:**

- 1. Both statement I and Statement II are true
- 2. Both statement I and statement II are false
- 3. Statement I is correct but statement II is false
- 4. Statement I is incorrect but statement II is true

5.

Answer: Statement I is correct but statement II is false



Match List I with List II

| List I (Watersheds) | List II (State) |
|---------------------|-----------------|
| A. Sukhomajri       | I. Uttarakhand  |
| B. Bunga            | II. Punjab      |
| C. Relmajra         | III. Chandigarh |
| D. Fakot            | IV. Haryana     |

Choose the correct answer from the options given below

# **Options:**

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

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

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

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

5.

Answer: A-III, B-IV, C-II, D-I

• Question No. 110

Given below are two statements:

#### Statement I

Two contiguous watersheds are mostly similar in characteristics

#### **Statement II**

Each watershed unit is a well-defined topographically delineated area with a distinct boundary

In the 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 is correct but Statement II is false
- 4. Statement I is incorrect but Statement II is true

5.

Answer: Statement I is incorrect but Statement II is true

• Question No. 111

Diara land comes under

## **Options:**

- 1. Salt affected areas
- 2. High rainfall areas
- 3. Flood prone areas
- 4. Arid areas

5.

Answer: Flood prone areas • Question No. 112

What is the unit of SAR (sodium adsorption ratio)?

# **Options:**

- 1. Moles/litre
- 2. me/litre
- 3. (me/litre) 0.5
- 4. (Moles/litre) 0.5

5.

Answer: (me/litre) 0.5



A person got his soil sample analysed and received a test report mentioning soil pH 8.3; ESP 12% and electrical conductivity  $5.2 \text{ ds m}^{-1}$ .

What type of soil is it?

## **Options:**

- 1. Acid soil
- 2. Saline soil
- 3. Alkali soil
- 4. Saline-alkali soil

5.

Answer: Saline soil

• Question No. 114

Water analysis of a bore well reports as under

CO3<sup>2-</sup>: 1.2 mel<sup>-1</sup>
HCO3<sup>2-</sup>: 4.0 mel<sup>-1</sup>

Ca<sup>2+</sup>: 2.6 mel<sup>-1</sup>

 ${\rm Mg}^{2+}$ : 1.5  ${\rm mel}^{-1}$ 

Calculate the RSC (residual sodium carbonate) in the bore well water

## **Options:**

- 1. 3.9 mel^-1
- 2. 3.3 mel^-1
- 3. 1.7 mel^-1
- 4. 1.1 me/l

5.



Answer: 1.1 me/l

• Question No. 115

In irrigated salt-affected soils, under raised bed planting system where should the seedlings be planted?

## **Options:**

- 1. At top of the bed
- 2. At mid slope of the bed
- 3. At centre of the furrow
- 4. Seedling can't be transplanted

5.

Answer: At mid slope of the bed

Question No. 116

Given below are two statements:

#### Statement I

Conservation agriculture involves no-tillage or drastically reduced tillage, but biological tillage is allowed

#### Statement II

During the initial years of conservation agriculture, there is a heavy infestation of weeds but it decreases with passing years

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

#### **Options:**

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

5.

Answer: Both Statement I and Statement II are true



Which of the following statements regarding shifting cultivation is NOT true?

#### **Options:**

- 1. Initially, it was low input and sustainable land-use system
- 2. Now, it is not sustainable due to the drastic increase in the gestation period (shifting cycle)
- 3. Now, it is not sustainable due to the drastic decrease in the gestation period (shifting cycle)
- 4. It causes erosion and land degradation

5.

Answer: Now, it is not sustainable due to the drastic increase in the gestation period (shifting cycle)

• Question No. 118

The principal objective of alley cropping is

#### **Options:**

- 1. To get green and palatable fodder from hedge rows and reasonable yield of intercrops
- 2. To maximize crop yield
- 3. To control wind erosion
- 4. To increase soil fertility

5.

Answer: To get green and palatable fodder from hedge rows and reasonable yield of intercrops

• Question No. 119

Which among the following soil resource indicators gives the highest priority for evaluating agricultural sustainability?

- 1. Weed intensity
- 2. Soil pH

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- 3. Water table depth
- 4. Soil organic matter

5.

Answer : Soil organic matter

• Question No. 120

Which of the following does not represent the use of rice husk?

## **Options:**

- 1. Source of plant nutrients
- 2. Substrate for production of bio fertilizers
- 3. Fuel
- 4. Direct human consumption

5.

Answer: Direct human consumption

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