

CUET UG 2024 Agriculture Question Paper with Solutio

Ques 1. Arrange the following gases in descending order in terms of percentage in dry air of the lower atmosphere:

- (A) Carbon dioxide
- (B) Argon
- (C) Nitrogen
- (D) Oxygen

Choose the correct answer from the options given below:

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

Ans. (4) (C), (D), (B), (A)

Solution: Nitrogen makes up the majority of the dry air in the lower atmosphere (78%), followed by oxygen (21%), argon (0.93%), and carbon dioxide (0.04%). As a result, the gases are grouped according to their percentages: carbon dioxide, argon, oxygen, and nitrogen.

Ques 2. Match List-I with List-II:

List-I

- (A) Humidity
- (B) Wind
- (C) Light intensity
- (D) Evapotranspiration

List-II

- (I) Anemometer
- (II) Lysimeter
- (III) Hygrometer
- (IV) Luxmeter

Choose the correct answer from the options given below:

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

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

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

Solution:

An anemometer (I) measures wind, a hygrometer (III) measures humidity, Evapotranspiration is measured by a Lysimeter (II), and light intensity is determined by a Luxmeter (IV).

Ques 3. The evidence of particulate nature for the units of inheritance was first presented by:

- (1) Mendel**
- (2) Correns**
- (3) Mojica**
- (4) Morgan**

Ans. (1) Mendel

Solution: Through his research on pea plants, Gregor Mendel was the first to demonstrate that inheritance is particulate. His findings demonstrated that characteristics are passed on from parents to children in distinct units, which were eventually dubbed genes.

Ques 4. Which of the following statements are correct about genes?

- (A) Genes are located on chromosomes**
- (B) Split genes are composed of exons only**
- (C) Genes move from one linkage group to another**
- (D) Chromosomes with identical arms on which genes are located are known as isochromosomes**

Choose the correct answer from the options given below:

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

Ans. (4) (A), (C) and (D) only

Solution:

- Since genes are found on chromosomes, statement (A) is true.

Also true is statement (C), which states that genes can transfer between linkage groups via mechanisms like transposition.

Since the arms of isochromosomes have the same gene makeup, statement (D) is accurate. Exons and introns are both present in split genes, so statement (B) is untrue.

Ques 5. The term heterosis is coined by:

- (1) Hull, 1945
- (2) Bruce, 1910
- (3) East, 1908
- (4) Shull, 1914

Ans. (4) Shull, 1914

Solution: The term "heterosis," which George Shull first used in 1914, describes hybrid vigor in which hybrid offspring show better traits than their parents.

Ques 6. Arrange the following steps of plant breeding in correct sequence:

- (A) Selection of superior variants
- (B) Creation of variation
- (C) Multiplication and distribution
- (D) Evaluation of variants

Choose the correct answer from the options given below:

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

Ans. (3) (B), (D), (A), (C)

Solution: Creating variation (introducing genetic variation), evaluating variants (testing the variants for desirable traits), selecting superior variants (picking the best-performing variants), and multiplying and distributing the superior variants are the proper steps in plant breeding.

Ques 7. Who is the father of tissue culture?

- (1) Jethro Tull
- (2) Folke Karl Skoog
- (3) Toshio Murashige
- (4) Haberlandt

Ans. (4) Haberlandt

Solution: The originator of plant tissue culture is regarded as Gottlieb Haberlandt. The idea of totipotency—the capacity of plant cells to proliferate into an entire plant—was put forth by him.

Ques 8. Protein is a polymer of:

- (1) Amino acids
- (2) Lipids
- (3) Nucleic acids
- (4) Carbohydrates

Ans. (1) Amino acids

Solution: Large macromolecules called proteins are composed of lengthy sequences of amino acids. A polypeptide chain made up of these amino acids and peptide bonds is what folds into a useful protein.

Ques 9. Which of the following are Cyanobacteria?

- (A) Nucleopolyhedrovirus
- (B) Anabaena
- (C) Nostoc
- (D) Oscillatoria

Choose the correct answer from the options given below:

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

Ans. (4) (B), (C), and (D) only

Solution: Photosynthetic bacteria, such as Anabaena, Nostoc, and Oscillatoria, are known as cyanobacteria. Nucleopolyhedrovirus (A) is not a cyanobacterium; it is a virus.

Ques 10. Starch is an example of:

- (1) Monosaccharides
- (2) Oligosaccharides
- (3) Disaccharides
- (4) Polysaccharides

Ans. (4) Polysaccharides

Solution: As a big carbohydrate composed of several glucose units joined together, starch is a polysaccharide. Plants use it as a means of storing energy.

Ques 11. Egg of poultry contains almost all the Vitamins with the exception of Vitamin:

- (1) B
- (2) C
- (3) A
- (4) D

Ans. (2) C

Solution: With the exception of vitamin C, which is produced internally by birds and therefore does not need to be present in their eggs, poultry eggs contain almost all of the vitamins.

Ques 12. Match List-I with List-II:

List-I

- (A) Tharparkar
- (B) Holstein Friesian
- (C) Jersey
- (D) Gir

List-II

- (I) Netherland
- (II) United Kingdom
- (III) Sindh
- (IV) Kathiawar

Choose the correct answer from the options given below:

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

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

Solution:

The origins of Tharparkar are in Sindh (III), Holstein Friesian from the Netherlands (I), Jersey from the UK (II), and Gir from Kathiawar (IV).

Ques 13. What is the name of the process required to make sperm competent for in-vitro fertilization?

- (1) Capacitation**
- (2) Syngamy**
- (3) Parturition**
- (4) Ovulation**

Ans. (1) Capacitation

Solution: The biochemical procedure known as "capacitation" is required for sperm to acquire the ability to fertilize an egg. Changes in the sperm membrane and the development of the capacity to pierce the egg are involved.

Ques 14. The colostrum should be fed at the rate of:

- (1) 25% of calf's body weight**
- (2) 30% of calf's body weight**
- (3) 10% of calf's body weight**
- (4) 40% of calf's body weight**

Ans. (3) 10% of calf's body weight

Solution: Within the first 6 to 12 hours of birth, colostrum, the first milk produced after giving birth, should be provided at a rate of about 10% of the calf's body weight in order to supply vital nutrients and antibodies.

Ques 15. Ranikhet disease is caused by:

- (1) Herpesvirus**
- (2) Paramyxovirus**
- (3) Avipoxvirus**
- (4) H1N1 influenza virus**

Ans. (2) Paramyxovirus

Solution: A member of the Paramyxovirus family is the virus that causes Ranikhet disease, often referred to as Newcastle sickness. The illness is an infectious virus that primarily affects poultry.

Ques 16. Which of the following is an exotic breed of poultry?

- (1) Busra**

- (2) Chittagong
- (3) Plymouth Rock
- (4) Kadaknath

Ans. (3) Plymouth Rock

Solution: An unusual breed of chicken called Plymouth Rock is well-known for its ability to produce both meat and eggs. The remaining breeds listed are native to India.

Ques 17. Match List-I with List-II:

List-I

- (A) Basundi
- (B) Paneer
- (C) Dahi
- (D) Ghee

List-II

- (I) Fat rich milk product
- (II) Fermented milk product
- (III) Concentrated milk product
- (IV) Coagulated milk product

Choose the correct answer from the options given below:

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

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

Solution:

Paneer is a coagulated milk product (IV), and basundi is a condensed milk product (III).

Dahi is a result of fermented milk (II).

Ghee is a dairy product that is high in fat (I).

Ques 18. Jute is a:

- (1) Forage crop
- (2) Fibre crop
- (3) Drug crop
- (4) Medicinal and aromatic crop

Ans. (2) Fibre crop

Solution: The main purpose of jute is as a crop for fiber. Its fibers are used to make sacks, ropes, and other goods.

Ques 19. Forage crops include:

- (A) Berseem
- (B) Safflower
- (C) Lucerne
- (D) Sunflower

Choose the correct answer from the options given below:

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

Ans. (2) (A) and (C) only

Solution: Berseem and lucerne are examples of forage crops that are mostly farmed for animal feed. Rather than being feed crops, sunflower and safflower are oilseed crops.

Ques 20. Arrange the following soil particles in descending order of their diameter:

- (A) Clay
- (B) Silt
- (C) Fine sand
- (D) Coarse sand

Choose the correct answer from the options given below:

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

Ans. (3) (D), (C), (B), (A)

Solution: Coarse sand is the largest soil particle, followed by fine sand, silt, and clay, which are the smallest, in decreasing order of size.

Ques 21. Which of the following statements are correct about the function of essential plant nutrients?

- (A) Nitrogen is not a component of nucleic acids.
- (B) Potassium plays an important role in the activation of enzymes.
- (C) Sulphur is part of some amino acids and coenzymes.
- (D) Phosphorus deficiency results in terminal bud necrosis.

Choose the correct answer from the options given below:

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

Ans. (4) (B), (C), and (D) only

Solution:

Since potassium is necessary for the activation of enzymes, option (B) is correct.

- (C) is accurate since sulfur is a component of some coenzymes and amino acids, such as cysteine.

Since terminal bud necrosis is caused by phosphate deficit, option (D) is accurate.

Since a significant component of nucleic acids (DNA and RNA) is nitrogen, option (A) is wrong.

Ques 22. Which of the following concentrated organic manures has the highest percentage of P_2O_5 ?

- (1) Neem cake
- (2) Raw bone-meal
- (3) Poultry manure
- (4) Fish manure

Ans. (2) Raw bone-meal

Solution: A concentrated organic manure, raw bone meal is distinguished by its high phosphorus (P_2O_5) content, which is critical for root growth.

Ques 23. Volume of water required to apply 5 cm irrigation over one hectare area:

- (1) 500 cubic meters
- (2) 50 cubic meters
- (3) 5000 cubic meters
- (4) 50000 cubic meters

Ans. (3) 5000 cubic meters

Solution: The amount of water needed is computed as follows in order to apply 5 cm (0.05 meters) of water across one hectare (10,000 square meters):

Volume=Area×Depth=10,000m²×0.05m=5000 meters³.

Ques 24. National Rainfed Area Authority was established in:

- (1) 2000
- (2) 2013
- (3) 1998
- (4) 2006

Ans. (4) 2006

Solution: In 2006, the National Rainfed Area Authority (NRAA) was created with the goal of advancing rainfed agriculture in India.

Ques 25. Match List-I with List-II:

List-I

- (A) Preventive method of weed control
- (B) Mechanical method of weed control
- (C) Cultural method of weed control
- (D) Biological method of weed control

List-II

- (I) Proper crop rotation
- (II) Control of Lantana camera (Ghaneri) by Lantana bug
- (III) Use of weed-free crop seeds
- (IV) Hand weeding

Choose the correct answer from the options given below:

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

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

Solution: (A) Using weed-free crop seeds is a preventive strategy (III); (B) Hand weeding is a mechanical strategy (IV);

Proper crop rotation is a component of the cultural technique (I), and the use of lantana bugs to control the camera is a component of the biological method (D).

Ques 26. Which of the following statements is NOT correct about the weeds?

- (1) Weeds compete with crop for space
- (2) Weeds compete with crops for light
- (3) Weeds compete with crops for nutrients
- (4) Weeds have no effect on the yield and quality of crops

Ans. (4) Weeds have no effect on the yield and quality of crops

Solution: In addition to reducing agricultural output and quality, weeds compete with crops for light, space, nutrients, and water. Statement (4) is therefore untrue.

Ques 27. Which of the following is not a pest of rapeseed-mustard crop?

- (1) White rust
- (2) Stalk borer
- (3) Aphids
- (4) Alternaria blight

Ans. (2) Stalk borer

Solution: There is no connection between stalk borer and rapeseed-mustard crops. Aphids, Alternaria blight, and white rust are among the pests that frequently harm these crops.

Ques 28. Which of the following crops is NOT a legume crop?

- (1) Berseem
- (2) Rapeseed-mustard
- (3) Soybean
- (4) Groundnut

Ans. (2) Rapeseed-mustard

Solution: Belonging to the Brassicaceae family, rapeseed-mustard is not a legume crop. The legume crops groundnut, soybean, and berseem fix nitrogen in the soil.

Ques 29. Which of the following crops requires relatively wider line-to-line and plant-to-plant spacing?

- (1) Maize
- (2) Chickpea
- (3) Berseem
- (4) Sugarcane

Ans. (4) Sugarcane

Solution: Because sugarcane is a huge crop with a large root system, it needs a greater line-to-line and plant-to-plant spacing.

Ques 30. Match List-I with List-II:

List-I

- (A) Sugarcane
- (B) Cotton
- (C) Groundnut
- (D) Sorghum

List-II

- (I) Red rot
- (II) Black arm
- (III) Tikka (Leaf spot)
- (IV) Grain smut

Choose the correct answer from the options given below:

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

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

Solution:

Black arm (II) affects cotton; Tikka (leaf spot) affects groundnuts; and Red rot (I) affects sugarcane.

It is Grain Smut (IV) that affects Sorghum.

Ques 31. Gladiator and Super Star are the varieties of which crop?

- (1) Tuberose
- (2) Rose
- (3) Marigold
- (4) Chrysanthemum

Ans. (4) Chrysanthemum

Solution: The well-known floral plant Chrysanthemum comes in the Gladiator and Super Star variants.

Ques 32. Arrange the process of preparation of jelly in proper sequence:

- (A) Judging of end point and cooling
- (B) Addition of sugar and cooking of jelly
- (C) Peeling and extraction of pectin
- (D) Harvesting of firm ripe fruits and washing

Choose the correct answer from the options given below:

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

Ans. (2) (D), (C), (B), (A)

Solution: Harvesting and cleaning the fruits is the proper procedure for making jelly (D),
Peeling pectin (C) and extracting it
The jelly is cooked after sugar is added (B),
Assessing cooling and the end point (A).

Ques 33. Match List-I with List-II:

List-I

- (A) Onion
- (B) Carrot
- (C) Potato
- (D) Cauliflower

List-II

- (I) Cruciferae
- (II) Solanaceae
- (III) Umbelliferae
- (IV) Liliaceae

Choose the correct answer from the options given below:

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

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

Solution:

Carrots are members of the Umbelliferae family (III), potatoes are members of the Solanaceae family (II), cauliflower is a member of the Cruciferae family (I), and onions are members of the Liliaceae family (IV).

Ques 34. Alphonso, Dasher, Ratna, and Amrapali are the varieties of:

- (1) Citrus
- (2) Pomegranate
- (3) Mango
- (4) Banana

Ans. (3) Mango

Solution: Popular mango kinds include Alphonso, Dasher, Ratna, and Amrapali. Mangos are tropical fruits that are prized for their sweetness and flavor.

Ques 35. Brinjal belongs to the family:

- (1) Solanaceae
- (2) Malvaceae
- (3) Cruciferae
- (4) Amaryllidaceae

Ans. (1) Solanaceae

Solution: The Solanaceae family, which also comprises potatoes and tomatoes, includes brinjal, also called eggplant.

Ques 36. Rose is commercially propagated by:

- (1) Bulbs
- (2) Seed
- (3) Tuber
- (4) 'T' budding

Ans. (4) 'T' budding

Solution: 'T' budding is a type of grafting that is commonly used in commercial rose propagation, yielding robust and healthy plants.

Ques 37. Physical method of fruit juice preservation includes:

- (A) Refrigeration
- (B) Salt addition
- (C) Sugar addition
- (D) Pasteurization

Choose the correct answer from the options given below:

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

Ans. (1) (A) and (D) only

Solution: Fruit juice can be preserved physically via pasteurization (D) and refrigeration (A), which both stop spoiling without changing the juice's chemical composition.

Ques 38. Which of the following disease is caused by Vitamin D deficiency?

- (1) Rickets
- (2) Night blindness
- (3) Scurvy
- (4) Beriberi

Ans. (1) Rickets

Solution: A vitamin D deficiency causes rickets, a condition that typically affects children and causes their bones to become weaker and softer.

Ques 39. Botanical name of Spinach is:

- (1) *Allium cepa*
- (2) *Spinacia oleracea*
- (3) *Bombax ceiba*
- (4) *Cucumis sativus*

Ans. (2) *Spinacia oleracea*

Solution: Spinach's botanical name is *Spinacia oleracea*. A popular vegetable, it is a lush green flowering plant.

Ques 40. Which of the following methods are used for banana propagation?

- (1) Cutting and grafting
- (2) Rhizomes and sword suckers
- (3) Grafting and layering
- (4) Budding and cutting

Ans. (2) Rhizomes and sword suckers

Solution: Typically, bananas are propagated by sword suckers and rhizomes, which enable the generation of genetically similar plants.

Ques 41. India's vegetable oils import is about _____ % of its total requirement of vegetable oils.

- (1) 40
- (2) 50
- (3) 15
- (4) 60

Ans. (2) 50

Solution: Because of its high domestic consumption and low manufacturing capability, India imports around half of its total vegetable oil needs.

Ques 42. Arrange the following edible oilseed crops in increasing order of area under cultivation in each crop in India:

- (A) Sesame
- (B) Soybean
- (C) Groundnut
- (D) Rapeseed-mustard

Choose the correct answer from the options given below:

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

Ans. (2) (A), (C), (B), (D)

Solution: In India, the following oilseed crops are often grown in order of decreasing to increasing area: sesame, groundnut, soybean, and rapeseed-mustard.

Ques 43. Which of the following statements are correct about oilseed crops in India?

- (A) India grows nine oilseed crops
- (B) Gujarat's contribution to total oilseed production is the highest
- (C) India is not self-sufficient in vegetable oilseeds production
- (D) India's oilseed production ranked fourth in the world

Choose the correct answer from the options given below:

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

Ans. (2) (A), (C), and (D) only

Solution:

(A) is accurate; nine distinct oilseed crops are grown in India.

The statement "India is not self-sufficient in oilseed production" (C) is accurate.

India ranks fourth in the world for oilseed output, hence option (D) is accurate.

The highest oilseed output is in Madhya Pradesh, not Gujarat, hence option (B) is erroneous.

Ques 44. Which of the following is a non-edible oilseed crop?

- (1) Safflower
- (2) Niger
- (3) Castor
- (4) Sesame

Ans. (3) Castor

Solution: A non-food oilseed crop, castor is mostly utilized in industrial settings. Ricine makes the oil that is produced from castor seeds unsafe for human consumption.

Ques 45. What is the contribution of oilseed crops to the Gross National Product (GNP)?

- (1) 7%
- (2) 1.4%
- (3) 10%
- (4) 4%

Ans. (2) 1.4%

Solution: India's Gross National Product (GNP) is boosted by the oilseed crop industry by about 1.4%.

Ques 46. What is the botanical name of santra (mandarin orange)?

- (1) *Citrus reticulata*
- (2) *Annona squamosa*
- (3) *Cocos nucifera*
- (4) *Vitis vinifera*

Ans. (1) *Citrus reticulata*

Solution: The mandarin orange, or santra, is botanically known as *Citrus reticulata*.

Ques 47. Which is the family of mandarin orange?

- (1) Rhamnaceae
- (2) Myrtaceae
- (3) Annonaceae
- (4) Rutaceae

Ans. (4) Rutaceae

Solution: The Rutaceae family, which also includes many other citrus fruits, includes the mandarin orange (*Citrus reticulata*).

Ques 48. Mandarin orange is commercially propagated by:

- (1) Stone grafting
- (2) Air layering
- (3) T budding
- (4) Suckers

Ans. (3) T budding

Solution: Commercial mandarin oranges are propagated by T budding, a grafting method that yields robust and healthy plants.

Ques 49. Which of the following is a variety of santra (mandarin orange)?

- (1) Muscat
- (2) Gola
- (3) Sardar
- (4) Kinnow

Ans. (4) Kinnow

Solution: Kinnow is a well-liked mandarin orange type that is grown extensively because of its sweetness and high juice content.

Ques 50. What is the average yield of Mandarin orange crop?

- (1) 80-160 fruits/trees
- (2) 40-50 fruits/trees
- (3) 200-280 fruits/trees
- (4) 300-600 fruits/trees

Ans. (1) 80-160 fruits/trees

Solution: Mandarin orange (santra) plants typically produce 80–160 fruits per tree, depending on environmental factors and production methods.