

CUET UG 2024 AGRICULTURE Online Question Paper with Solutions

Q1. 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)

Correct answer: (4) (C), (D), (B), (A)

Solution: The composition of dry air is approximately:

- 78% Nitrogen (N_2)
- 21% Oxygen (O_2)
- 0.93% Argon (Ar)
- 0.04% Carbon dioxide (CO_2)

Quick Tip

Nitrogen is the most abundant gas in the atmosphere, followed by oxygen, argon, and carbon dioxide.

Q2. Match List-I with List-II:

List-I (Parameter)	List-II (Instrument for measurement)
(A) Humidity	(I) Anemometer
(B) Wind	(II) Lysimeter
(C) Light intensity	(III) Hygrometer
(D) Evapotranspiration	(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)

Correct answer: (1) (A) - (III), (B) - (I), (C) - (IV), (D) - (II)

Solution:

- **Humidity:** Hygrometer
- **Wind:** Anemometer
- **Light Intensity:** Luxmeter
- **Evapotranspiration:** Lysimeter

Quick Tip

Knowing the right instruments for measuring various parameters like humidity, wind, light intensity, and evapotranspiration is crucial in agricultural and environmental studies.

Q3. The evidence of particulate nature for the units of inheritance was first presented by:

- (1) Mendel
- (2) Correns

(3) Mojica

(4) Morgan

Correct answer: (1) Mendel

Solution: Gregor Mendel founded the particulate theory of inheritance by studying the pea plants.

Quick Tip

Mendel's work laid the foundation of genetics, showcasing how traits are passed down through distinct units called genes.

Q4. Which of the following statements are correct about the 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

Correct answer: (1) (A), (B) and (D) only

Solution:

- (A) True - Genes are located on chromosomes.
- (B) False - Split genes contain both exons and introns.
- (C) False - Genes do not change linkage groups in normal situations.
- (D) True - Isochromosomes have identical arms.

Quick Tip

Understanding gene structure and behavior is key to understanding inheritance, especially in advanced genetic studies.

Q5. The term heterosis was coined by:

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

Correct answer: (4) Shull, 1914

Solution: Hybrid vigor or heterosis was first described by George Shull.

Quick Tip

Heterosis refers to the phenomenon where hybrid offspring show superior traits compared to their parents.

Q6. 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)

Correct answer: (3) (B), (D), (A), (C)

Solution:

- **Creation of variation (B):** The first step where genetic variation is generated through hybridization or mutation.
- **Evaluation of variants (D):** Variants are evaluated for desirable traits.
- **Selection of superior variants (A):** Promising variants are chosen for further development after evaluation.
- **Multiplication and distribution (C):** The final step is multiplication and distribution of selected variants to farmers.

Quick Tip

A clear understanding of plant breeding steps helps in improving crop varieties and enhancing productivity.

Q7. Who is the father of tissue culture?

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

Correct answer: (4) Haberlandt

Solution: Haberlandt is often referred to as the father of plant tissue culture.

Quick Tip

Tissue culture is a crucial technique in plant science for producing clones of a plant in a rapid and controlled manner.

Q8. Protein is a polymer of:

- (1) Amino acids

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

Correct answer: (1) Amino acids

Solution: Proteins are long chains of amino acids.

Quick Tip

Proteins are essential macromolecules made up of amino acids, and they perform various functions in the body, from structural support to enzyme catalysis.

Q9. 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

Correct answer: (4) (B), (C) and (D) only

Solution: Anabaena, Nostoc, and Oscillatoria are all Cyanobacteria, while Nucleopolyhedrovirus is not.

Quick Tip

Cyanobacteria are photosynthetic bacteria important in the ecosystem for nitrogen fixation.

Q10. Starch is an example of:

- (1) Monosaccharides

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

Correct answer: (4) Polysaccharides

Solution: Starch is a carbohydrate made up of multiple sugar molecules (a polysaccharide).

Quick Tip

Starch is an important storage carbohydrate in plants, and its breakdown provides energy.

Q11. Egg of poultry contains almost all the vitamins with the exception of:

- (A) Vitamin B
- (B) Vitamin C
- (C) Vitamin A
- (D) Vitamin D

Answer: (B) Vitamin C

Solution: Poultry eggs contain many vitamins except for Vitamin C.

Quick Tip

Vitamin C is primarily found in fruits and vegetables, not in poultry eggs.

Q12. Match List-I with List-II:

List-I (Cattle Breed)	List-II (Place of Origin)
(A) Tharparkar	(I) Netherland
(B) Holstein Friesian	(II) United Kingdom
(C) Jersey	(III) Sindh
(D) Gir	(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) - (II)

Correct answer: (3) (A)-(III), (B) - (I), (C) - (II), (D) - (IV)

Solution:

- Tharparkar - Sindh
- Holstein Friesian - Netherland
- Jersey - United Kingdom
- Gir - Kathiawar

Quick Tip

Recognizing cattle breeds and their origins is essential for livestock management and breeding.

Q13. What is the name of the process required to make sperm competent for in-vitro fertilization?

- (A) Capacitation
- (B) Syngamy
- (C) Parturition
- (D) Ovulation

Answer: (A) Capacitation

Solution: Capacitation is the process that sperm undergo to gain the ability to fertilize an egg.

Quick Tip

Capacitation is crucial for successful fertilization during in-vitro fertilization procedures.

Q14. The colostrum should be fed at the rate of:

- (A) 25% of calf's body weight
- (B) 30% of calf's body weight
- (C) 10% of calf's body weight
- (D) 40% of calf's body weight

Answer: (C) 10% of calf's body weight

Solution: Colostrum feeding guidelines recommend around 10% of the calf's body weight.

Quick Tip

Feeding colostrum is vital for the health and immunity of newborn calves.

Q15. Ranikhet disease is caused by:

- (A) Herpesvirus
- (B) Paramyxovirus
- (C) Avipoxvirus
- (D) H1N1 influenza virus

Answer: (B) Paramyxovirus

Solution: Ranikhet disease in poultry is caused by the Newcastle disease virus, which is a paramyxovirus.

Quick Tip

Understanding diseases in poultry helps in effective management and prevention strategies.

Q16. Which of the following is an exotic breed of poultry?

- (A) Busra
- (B) Chittagong
- (C) Plymouth Rock
- (D) Kadaknath

Answer: (C) Plymouth Rock

Solution: Plymouth Rock is an exotic breed compared to the native breeds like Busra or Kadaknath.

Quick Tip

Exotic poultry breeds are often raised for their unique characteristics and higher productivity.

Q17. Match List-I with List-II:

List-I (Milk product)	List-II (Classification)
(A) Basundi	(I) Fat rich milk product
(B) Paneer	(II) Fermented milk product
(C) Dahi	(III) Concentrated milk product
(D) Ghee	(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)-(I), (B) - (II), (C) - (IV), (D) - (III)
- (4) (A)-(III), (B) - (IV), (C) - (I), (D)-(II)

Correct answer: (1) (A)-(III), (B) - (IV), (C) - (II), (D) - (I)

Solution:

- Basundi - concentrated dairy product
- Paneer - coagulated dairy product.
- Dahi - fermented milk product
- Ghee – a dairy product that is high in fat

Quick Tip

Familiarity with milk product classifications is important in dairy science and nutrition.

Q18. Jute is a:

- (A) Forage crop
- (B) Fibre crop
- (C) Drug crop
- (D) Medicinal and aromatic crop

Answer: (B) Fibre crop

Solution: Jute is primarily grown for its fiber.

Quick Tip

Jute is a significant cash crop in many regions, valued for its strong fibers used in making ropes, bags, and textiles.

Q19. 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

Answer: (2) (A) and (C) only

Solution: Berseem and Lucerne are forage crops. Safflower and sunflower are not primarily forage crops.

Quick Tip

Forage crops are essential for livestock feeding, providing the necessary nutrients for animal health and productivity.

Q20. 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)

Answer: (3) (D), (C), (B), (A)

Solution: Coarse sand > Fine sand > Silt > Clay

Quick Tip

Understanding soil particle sizes is crucial for agriculture, affecting water retention and nutrient availability.

Q21. 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) Sulfur 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

Answer: (4) (B), (C) and (D) only

Solution:

- (A) False - Nitrogen is a component of nucleic acids.
- (B) True - Potassium activates enzymes.
- (C) True - Sulfur is part of amino acids.
- (D) True - Phosphorus deficiency leads to terminal bud necrosis.

Quick Tip

Essential nutrients play crucial roles in plant growth and development, influencing everything from enzyme activation to structural components.

Q22. Which of the following concentrated organic manures has the highest percentage of P_2O_5 ?

- (A) Neem cake

- (B) Raw bone-meal
- (C) Poultry manure
- (D) Fish manure

Answer: (B) Raw bone-meal

Solution: Raw bone meal usually contains a high percentage of phosphorus.

Quick Tip

Bone meal is an excellent source of phosphorus for plants, promoting root development and flower formation.

Q23. Volume of water required to apply 5 cm of irrigation over one hectare area?

- (A) 500 cubic meters
- (B) 50 cubic meters
- (C) 5000 cubic meters
- (D) 50000 cubic meters

Answer: (D) 50000 cubic meters

Solution: 1 hectare = 10,000 m², so 5 cm = 0.05 m, therefore, $10,000 \text{ m}^2 \times 0.05 \text{ m} = 500 \text{ cubic meters}$.

Quick Tip

Understanding irrigation requirements is vital for effective water management in agriculture.

Q24. National Rainfed Area Authority was established in:

- (A) 2000
- (B) 2013
- (C) 1998

(D) 2006

Answer: (D) 2006

Solution: The National Dryland Authority was established to focus on dryland agriculture.

Quick Tip

The National Rainfed Area Authority aims to enhance agricultural productivity in rain-fed areas through research and development.

Q25. Match List-I with List-II:

List-I (Methods of Weed Control)	List-II (Measures of Weed Control)
(A) Preventive method of weed control	(I) Proper crop rotation
(B) Mechanical method of weed control	(II) Control of Lantana camara (Ghaneri) by Lantana bug
(C) Cultural method of weed control	(III) Use weed-free crop seeds
(D) Biological method of weed control	(IV) Hand weeding

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)

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

Solution:

- Method of prevention - Use weed-free seeds.
- Mechanical method - Hand weeding.
- Cultural methods - Proper crop rotation.
- Biological method - Control the Lantana camara with Lantana bugs.

Quick Tip

Implementing integrated weed management strategies is essential for maintaining crop health and productivity.

Q26. Which of the following statements is NOT correct about the weeds?

- (A) Weeds compete with crops for space
- (B) Weeds compete with crops for light
- (C) Weeds compete with crops for nutrients
- (D) Weeds have no effect on the yield and quality of crops

Answer: (D) Weeds have no effect on the yield and quality of crops

Solution: Weeds compete for resources and can adversely affect the yield and quality of crops.

Quick Tip

Effective weed management is critical for maximizing crop yields and maintaining quality.

Q27. Which of the following is not a pest of rapeseed-mustard crop?

- (A) White rust
- (B) Stalk borer
- (C) Aphids
- (D) Alternaria blight

Answer: (D) Alternaria blight

Solution: Alternaria blight is a disease, not a pest.

Quick Tip

Distinguishing between diseases and pests is crucial for effective crop protection strategies.

Q28. Which of the following crops is NOT a legume crop?

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

Answer: (B) Rapeseed-mustard

Solution: Most rapeseeds are cruciferous plants, not legumes.

Quick Tip

Legume crops are vital for nitrogen fixation, improving soil fertility for subsequent crops.

Q29. Which of the following crops requires relatively wider line-to-line and plant-to-plant spacing?

- (A) Maize
- (B) Chickpea
- (C) Berseem
- (D) Sugarcane

Answer: (D) Sugarcane

Solution: Sugarcane usually requires more distance than the other crops listed.

Quick Tip

Adequate spacing in crops is crucial for maximizing sunlight exposure, air circulation, and nutrient uptake.

Q30. Match List-I with List-II:

List-I (Name of Crop)	List-II (Disease of Crop)
(A) Sugarcane	(I) Red rot
(B) Cotton	(II) Black arm
(C) Groundnut	(III) Tikka (Leaf spot)
(D) Sorghum	(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)

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

Solution:

- Sugarcane - Red rot
- Cotton - Black arm
- Groundnut - Tikka (Leaf spot)
- Sorghum - Grain smut

Quick Tip

Understanding crop diseases is essential for implementing effective control measures and protecting yield.

Q31. Gladiator and Super Star are the varieties of which crop?

- (A) Tuberose
- (B) Rose
- (C) Marigold
- (D) Chrysanthemum

Answer: (A) Tuberose

Solution: Gladiator and Super Star are known for tuberose.

Quick Tip

Tuberose is valued for its fragrant flowers, often used in perfumery and floral arrangements.

Q32. 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)

Answer: (2) (D), (C), (B), (A)

Solution:

- Harvesting of firm ripe fruits and washing.
- Peeling and extraction of pectin.

- Addition of sugar and cooking of jelly.
- Judging of end point and cooling.

Quick Tip

The jelly-making process relies on pectin to achieve the right consistency, and proper sequencing is essential for best results.

Q33. Match List-I with List-II:

List-I (Vegetable)	List-II (Family)
(A) Onion	(I) Cruciferae
(B) Carrot	(II) Solanaceae
(C) Potato	(III) Umbelliferae
(D) Cauliflower	(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)- (II), (D) - (IV)
- (3) (A)-(I), (B) - (II), (C) (IV), (D) - (III)
- (4) (A)-(III), (B)- (IV), (C)- (I), (D)-(II)

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

Solution:

- Onion belongs to Liliaceae
- Carrot to Umbelliferae
- Potato to Solanaceae
- Cauliflower to Cruciferae

Quick Tip

Knowing the botanical families of vegetables can help in crop rotation and pest management strategies.

Q34. Alphonso, Dasher, Ratna, and Amrapali are the varieties of:

- (A) Citrus
- (B) Pomegranate
- (C) Mango
- (D) Banana

Answer: (C) Mango

Solution: All of these are popular varieties of mango.

Quick Tip

Mango is known as the "king of fruits" and is one of the most popular tropical fruits worldwide.

Q35. Brinjal belongs to the family:

- (A) Solanaceae
- (B) Malvaceae
- (C) Cruciferae
- (D) Amaryllidaceae

Answer: (A) Solanaceae

Solution: Brinjal (Eggplant) is in the Solanaceae family.

Quick Tip

The Solanaceae family includes many important agricultural crops, such as tomatoes and peppers, in addition to brinjal.

Q36. Rose is commercially propagated by:

- (A) Bulbs
- (B) Seed
- (C) Tuber
- (D) 'T' budding

Answer: (D) 'T' budding

Solution: Roses are usually propagated by budding in a 'T' shape.

Quick Tip

'T' budding is a common grafting method that allows for the propagation of desired rose varieties with the rootstock's strength.

Q37. 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

Answer: (1) (A) and (D) only

Solution: Refrigeration and pasteurization are methods of physical preservation. Adding salt and sugar is a chemical method.

Quick Tip

Understanding preservation methods is crucial for extending the shelf life of fruit juices without compromising quality.

Q38. Which of the following diseases is caused by Vitamin D deficiency?

- (A) Rickets
- (B) Night blindness
- (C) Scurvy
- (D) Beriberi

Answer: (A) Rickets

Solution: Rickets is a disease caused by Vitamin D deficiency.

Quick Tip

Vitamin D is essential for calcium absorption and bone health, making its deficiency a significant public health concern.

Q39. Botanical name of Spinach is:

- (A) Allium cepa
- (B) Spinacia oleracea
- (C) Bombax ceiba
- (D) Cucumis sativus

Answer: (B) Spinacia oleracea

Solution: Spinach's scientific name is Spinacia oleracea.

Quick Tip

Spinach is rich in vitamins and minerals, making it a popular leafy green in various cuisines.

Q40. Which of the following methods are used for banana propagation?

- (A) Cutting and grafting
- (B) Rhizomes and sword suckers
- (C) Grafting and layering
- (D) Budding and cutting

Answer: (B) Rhizomes and sword suckers

Solution: Bananas are propagated using rhizomes and sword suckers.

Quick Tip

Banana propagation through rhizomes ensures the continuity of the variety and is a common practice in banana cultivation.

Q41. Oilseeds Scenario of India

India is next to USA, China, and Brazil in vegetable oils production. Areas and production of oilseed crops are next to food crops. India accounts for 14% of the world's oilseeds area, 8% of the world's oilseeds output, and 11% of the world's edible oils consumption. India grows nine field oilseed crops, of which linseed and castor are non-edible. In the edible oilseeds crops, soybean has the highest acreage, followed by rapeseed-mustard, groundnut, sesame, safflower, sunflower, and niger. India is not self-sufficient in oilseeds production, and 50% of the requirement of vegetable oils is met through imports. Of the total imports, about 60% is palm oil. Among the states, Madhya Pradesh ranks at the top in area and production of vegetable oils, followed by Rajasthan, Gujarat, and Andhra Pradesh. Oilseeds occupy about 13-14% of the gross cropped area and account for nearly 1.4% of the gross national product and 7% of the value of all agricultural commodities.

India's vegetable oils import is about..... of its total requirement of vegetable oils.

- (A) 40
- (B) 50
- (C) 15
- (D) 60

Answer: (B) 50

Solution: India meets 50% of its vegetable oil needs through imports.

Quick Tip

To reduce dependence on imports, improving domestic oilseed production through better agricultural practices is crucial.

Q42. Oilseed Crops in India

India is next to USA, China, and Brazil in vegetable oils production. Areas and production of oilseed crops are next to food crops. India accounts for 14% of the world's oilseeds area, 8% of the world's oilseeds output, and 11% of the world's edible oils consumption. India grows nine field oilseed crops, of which linseed and castor are non-edible. In the edible oilseeds crops, soybean has the highest acreage, followed by rapeseed-mustard, groundnut, sesame, safflower, sunflower, and niger. India is not self-sufficient in oilseeds production, and 50% of the requirement of vegetable oils is met through imports. Of the total imports, about 60% is palm oil. Among the states, Madhya Pradesh ranks at the top in area and production of vegetable oils, followed by Rajasthan, Gujarat, and Andhra Pradesh. Oilseeds occupy about 13-14% of the gross cropped area and account for nearly 1.4% of the gross national product and 7% of the value of all agricultural commodities.

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:

- (A) (A), (D), (C), (A)
- (B) (A), (C), (B), (D)
- (C) (B), (A), (D), (C)
- (D) (A), (C), (D), (B)

Answer: (D) (A), (C), (D), (B)

Solution: Sesame ; Groundnut ; Rapeseed-mustard ; Soybean in terms of area under cultivation.

Quick Tip

Focusing on crop rotation and intercropping can enhance oilseed yield and soil health.

Q43. Oilseed Production Statements

India is next to USA, China, and Brazil in vegetable oils production. Areas and production of oilseed crops are next to food crops. India accounts for 14% of the world's oilseeds area, 8% of the world's oilseeds output, and 11% of the world's edible oils consumption. India grows nine field oilseed crops, of which linseed and castor are non-edible. In the edible oilseeds crops, soybean has the highest acreage, followed by rapeseed-mustard, groundnut, sesame, safflower, sunflower, and niger. India is not self-sufficient in oilseeds production, and 50% of the requirement of vegetable oils is met through imports. Of the total imports, about 60% is palm oil. Among the states, Madhya Pradesh ranks at the top in area and production of vegetable oils, followed by Rajasthan, Gujarat, and Andhra Pradesh. Oilseeds occupy about

13-14% of the gross cropped area and account for nearly 1.4% of the gross national product and 7% of the value of all agricultural commodities.

Which of the following statements are correct about the 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 ranks fourth in the world

Choose the correct answer from the options given below:

- (A) (A), (B) and (D) only
- (B) (A), (C) and (D) only
- (C) (A), (B), (C) and (D)
- (D) (B), (C) and (D) only

Answer: (B) (A), (C), and (D) only

Solution: India grows 9 oilseed crops and is not self-sufficient in oilseed production and ranks 4th in oilseed production.

Quick Tip

Increasing awareness and training in oilseed cultivation can help farmers improve their yields.

Q44. Non-Edible Oilseed Crop

India is next to USA, China, and Brazil in vegetable oils production. Areas and production of oilseed crops are next to food crops. India accounts for 14% of the world's oilseeds area, 8% of the world's oilseeds output, and 11% of the world's edible oils consumption. India grows nine field oilseed crops, of which linseed and castor are non-edible. In the edible oilseeds

crops, soybean has the highest acreage, followed by rapeseed-mustard, groundnut, sesame, safflower, sunflower, and niger. India is not self-sufficient in oilseeds production, and 50% of the requirement of vegetable oils is met through imports. Of the total imports, about 60% is palm oil. Among the states, Madhya Pradesh ranks at the top in area and production of vegetable oils, followed by Rajasthan, Gujarat, and Andhra Pradesh. Oilseeds occupy about 13-14% of the gross cropped area and account for nearly 1.4% of the gross national product and 7% of the value of all agricultural commodities.

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

- (A) Safflower
- (B) Castor
- (C) Niger
- (D) Sesame

Answer: (B) Castor

Solution: Castor is a non-edible oilseed crop.

Quick Tip

Be aware of the classification of oilseed crops for better agricultural practices and crop selection.

Q45. Oilseed Contribution to GDP

India is next to USA, China, and Brazil in vegetable oils production. Areas and production of oilseed crops are next to food crops. India accounts for 14% of the world's oilseeds area, 8% of the world's oilseeds output, and 11% of the world's edible oils consumption. India grows nine field oilseed crops, of which linseed and castor are non-edible. In the edible oilseeds crops, soybean has the highest acreage, followed by rapeseed-mustard, groundnut, sesame, safflower, sunflower, and niger. India is not self-sufficient in oilseeds production, and 50% of the requirement of vegetable oils is met through imports. Of the total imports, about 60%

is palm oil. Among the states, Madhya Pradesh ranks at the top in area and production of vegetable oils, followed by Rajasthan, Gujarat, and Andhra Pradesh. Oilseeds occupy about 13-14% of the gross cropped area and account for nearly 1.4% of the gross national product and 7% of the value of all agricultural commodities.

What is the contribution of oilseed crops to Gross National Product?

- (A) 7%
- (B) 1.4%
- (C) 10%
- (D) 4%

Answer: (B) 1.4%

Solution: The oilseed crop contributes approximately 1.4% to GDP.

Quick Tip

Understanding the economic impact of oilseeds can help in policy-making and investment decisions.

Q46. Mandarin Orange - Fruit Crop

Mandarin oranges (Botanical name - *Citrus reticulata*, Family Rutaceae), commonly known as Santra, are the most refreshing and health-promoting juicy fruits. Besides Vitamin C, it is an excellent source of pectin and certain essential oils. The juice is advised to patients. Subtropical and tropical climates are required for the growth of santra. The trees grow luxuriously in 1.5 m deep, well-drained soils free from excess salts and having adequate organic matter. The important varieties are Nagpur santra (Maharashtra), Khansi mandarin (Assam), Coorg mandarin (Karnataka), Kinnow (Punjab), Emperor, Hill orange, Mudkhed seedless, and Honey (for kitchen gardening). Santra are commercially propagated by shield or 'T' budding on rootstocks like jamberi or rangpur lime. Average yield is 80 to 160 fruits per tree.

What is the botanical name of santra?

- (A) *Citrus reticulata*
- (B) *Annona squamosa*
- (C) *Cocus nucifera*
- (D) *Vitis vinifera*

Answer: (A) *Citrus reticulata*

Solution: The botanical name for mandarin orange (santra) is *Citrus reticulata*.

Quick Tip

Knowing the botanical names of crops can aid in scientific research and agricultural practices.

Q47. Family of Mandarin Orange

Mandarin oranges (Botanical name - *Citrus reticulata*, Family Rutaceae), commonly known as Santra, are the most refreshing and health-promoting juicy fruits. Besides Vitamin C, it is an excellent source of pectin and certain essential oils. The juice is advised to patients. Subtropical and tropical climates are required for the growth of santra. The trees grow luxuriously in 1.5 m deep, well-drained soils free from excess salts and having adequate organic matter. The important varieties are Nagpur santra (Maharashtra), Khansi mandarin (Assam), Coorg mandarin (Karnataka), Kinnow (Punjab), Emperor, Hill orange, Mudkhed seedless, and Honey (for kitchen gardening). Santra are commercially propagated by shield or 'T' budding on rootstocks like jamberi or rangpur lime. Average yield is 80 to 160 fruits per tree.

Which is the family of mandarin orange?

- (A) Rhamnaceae
- (B) Myrtaceae
- (C) Annonaceae
- (D) Rutaceae

Answer: (D) Rutaceae

Solution: Mandarin orange belongs to the family Rutaceae.

Quick Tip

Familiarize yourself with plant families to better understand plant relationships and classifications.

Q48. Propagation of Mandarin Orange

Mandarin oranges (Botanical name - *Citrus reticulata*, Family Rutaceae), commonly known as Santra, are the most refreshing and health-promoting juicy fruits. Besides Vitamin C, it is an excellent source of pectin and certain essential oils. The juice is advised to patients. Subtropical and tropical climates are required for the growth of santra. The trees grow luxuriously in 1.5 m deep, well-drained soils free from excess salts and having adequate organic matter. The important varieties are Nagpur santra (Maharashtra), Khansi mandarin (Assam), Coorg mandarin (Karnataka), Kinnow (Punjab), Emperor, Hill orange, Mudkhed seedless, and Honey (for kitchen gardening). Santra are commercially propagated by shield or 'T' budding on rootstocks like jamberi or rangpur lime. Average yield is 80 to 160 fruits per tree.

Mandarin orange commercially propagated by:

- (A) Stone grafting
- (B) Air layering
- (C) 'T' budding
- (D) Suckers

Answer: (C) 'T' budding

Solution: Mandarin orange is commercially propagated using 'T' budding.

Quick Tip

Understanding propagation methods can enhance successful cultivation of fruit crops.

Q49. Variety of Mandarin Orange

Mandarin oranges (Botanical name - *Citrus reticulata*, Family Rutaceae), commonly known as Santra, are the most refreshing and health-promoting juicy fruits. Besides Vitamin C, it is an excellent source of pectin and certain essential oils. The juice is advised to patients. Subtropical and tropical climates are required for the growth of santra. The trees grow luxuriously in 1.5 m deep, well-drained soils free from excess salts and having adequate organic matter. The important varieties are Nagpur santra (Maharashtra), Khansi mandarin (Assam), Coorg mandarin (Karnataka), Kinnow (Punjab), Emperor, Hill orange, Mudkhed seedless, and Honey (for kitchen gardening). Santra are commercially propagated by shield or 'T' budding on rootstocks like jamberi or rangpur lime. Average yield is 80 to 160 fruits per tree.

Which of the following is a variety of santra?

- (A) Muscat
- (B) Gola
- (C) Sardar
- (D) Kinnow

Answer: (D) Kinnow

Solution: Kinnow is a variety of mandarin orange (santra).

Quick Tip

Identifying varieties can help in selecting the best options for specific climates and soil conditions.

Q50. Average Yield of Mandarin Orange

Mandarin oranges (Botanical name - *Citrus reticulata*, Family Rutaceae), commonly known as Santra, are the most refreshing and health-promoting juicy fruits. Besides Vitamin C, it is an excellent source of pectin and certain essential oils. The juice is advised to patients. Subtropical and tropical climates are required for the growth of santra. The trees grow luxuriously in 1.5 m deep, well-drained soils free from excess salts and having adequate organic matter. The important varieties are Nagpur santra (Maharashtra), Khansi mandarin (Assam), Coorg mandarin (Karnataka), Kinnow (Punjab), Emperor, Hill orange, Mudkhed seedless, and Honey (for kitchen gardening). Santra are commercially propagated by shield or 'T' budding on rootstocks like jamberi or rangpur lime. Average yield is 80 to 160 fruits per tree.

What is the average yield of Mandarin orange crop?

- (A) 80-160 fruits/trees
- (B) 40-50 fruits/trees
- (C) 200-280 fruits/trees
- (D) 300-600 fruits/trees

Answer: (A) 80-160 fruits/trees

Solution: The average yield of the Mandarin orange crop is 80 to 160 fruits per tree.

Quick Tip

Monitoring average yields can assist farmers in evaluating their production practices.