

CUET UG 2025 302-Agriculture Question Paper with Solutions

Time Allowed :1 Hours	Maximum Marks :100	Total questions :50
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General Instructions

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- i) The CUET (UG) 2025 will be conducted by the National Testing Agency (NTA) in Computer Based Test (CBT) mode.
- ii) All questions will be objective type (MCQs) with four options, out of which only one will be correct.
- iii) Each correct answer carries **+5 marks**, and **1 mark will be deducted** for every incorrect response. Unanswered questions will get **0 marks**.
- iv) The test will consist of three sections:
 - Section I: Languages
 - Section II: Domain Subjects
 - Section III: General Test
- v) Candidates must carry their Admit Card and a valid Photo ID proof to the examination center.
- vi) Rough work should be done only in the provided sheet/scribble pad, which must be returned after the test.
- vii) No electronic gadgets, mobile phones, or programmable calculators are permitted inside the examination hall.

Q1. Match List-I with List-II.

List-I (Weather element)	List-II (Instrument)
(A) Temperature	(I) Dew gauge
(B) Rainfall	(II) Anemometer
(C) Wind velocity	(III) Rain gauge
(D) Dew	(IV) Thermometer

Choose the correct answer from the options given below:

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

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

Solution:

Step 1: Recall the weather elements and instruments.

- Temperature is measured by a **Thermometer (IV)**.
- Rainfall is measured using a **Rain gauge (III)**.
- Wind velocity is measured using an **Anemometer (II)**.
- Dew is measured with a **Dew gauge (I)**.

Step 2: Construct the correct matching.

(A) → (IV) Thermometer for Temperature

(B) → (III) Rain gauge for Rainfall

(C) → (II) Anemometer for Wind velocity

(D) → (I) Dew gauge for Dew

Step 3: Verify against the options.

Comparing with the given options, only Option 1 matches the correct sequence.

Final Answer:

The correct answer is 1. (A) - (IV), (B) - (III), (C) - (II), (D) - (I)

Quick Tip

Always remember standard meteorological instruments: Thermometer (temperature), Rain gauge (rainfall), Anemometer (wind velocity), and Dew gauge (dew). This association is frequently tested in competitive exams.

Q2. Which among the following is a greenhouse gas?

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

Correct Answer: 1. Methane

Solution:

Step 1: Understanding greenhouse gases.

Greenhouse gases are those that trap heat in the Earth's atmosphere and contribute to the greenhouse effect, causing global warming and climate change.

Step 2: Evaluating the options.

- **Methane (CH₄)**: A potent greenhouse gas, far stronger than CO₂ in trapping heat.
- **Oxygen (O₂)**: Essential for respiration but not a greenhouse gas.
- **Nitrogen (N₂)**: Makes up the majority of air but is inert and not a greenhouse gas.
- **Hydrogen (H₂)**: A light gas, not a greenhouse gas.

Step 3: Conclusion.

Hence, the correct answer is **Methane**.

Final Answer:

Methane is the greenhouse gas.

Quick Tip

Remember the key greenhouse gases: CO₂, CH₄, N₂O, O₃, and water vapor. These gases trap heat and influence Earth's climate.

Q3. _____ is the major site for ATP synthesis amid oxidative metabolism and so called power house of cells.

1. Chloroplast
2. Nucleus
3. Ribosome
4. Mitochondrion

Correct Answer: 4. Mitochondrion

Solution:

Step 1: Understanding ATP synthesis.

ATP (adenosine triphosphate) is the energy currency of the cell. It is primarily synthesized during cellular respiration, which occurs in the mitochondria through oxidative phosphorylation.

Step 2: Evaluating the options.

- **Chloroplast**: Involved in photosynthesis in plants, not the main site for oxidative ATP synthesis.
- **Nucleus**: Stores genetic material and regulates cellular activities, but not ATP synthesis.
- **Ribosome**: Responsible for protein synthesis, not energy production.
- **Mitochondrion**: The site of the electron transport chain and oxidative phosphorylation, generating ATP. Known as the **powerhouse of the cell**.

Step 3: Conclusion.

The correct answer is **Mitochondrion**.

Final Answer:

Mitochondrion is the powerhouse of the cell.

Quick Tip

Mitochondria produce ATP through oxidative phosphorylation. In plants, chloroplasts make glucose (photosynthesis), but mitochondria are still the powerhouse for ATP in all eukaryotes.

Q4. Match List-I with List-II.

List-I (Crop)	List-II (First hybrid variety)
(A) Maize	(I) CSH-1
(B) Jowar	(II) H-4
(C) Bajra	(III) HB-1
(D) Cotton	(IV) Ganga-1

Choose the correct answer from the options given below:

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

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

Solution:

Step 1: Recall the first hybrid varieties.

- Maize → **Ganga-1 (IV)**
- Jowar → **CSH-1 (I)**
- Bajra → **HB-1 (III)**
- Cotton → **H-4 (II)**

Step 2: Construct the correct matching.

$(A) \rightarrow (IV)$ Maize - Ganga-1

$(B) \rightarrow (I)$ Jowar - CSH-1

$(C) \rightarrow (III)$ Bajra - HB-1

$(D) \rightarrow (II)$ Cotton - H-4

Step 3: Verify against the options.

This matches Option 2 exactly.

Final Answer:

The correct answer is 2. (A) - (IV), (B) - (I), (C) - (III), (D) - (II)

Quick Tip

Always remember the “first hybrids” in crops: Ganga-1 (Maize), CSH-1 (Jowar), HB-1 (Bajra), and H-4 (Cotton). These are direct questions from Indian agriculture milestones.

Q5. The inheritance of the AB blood group in humans is an example of -

1. Co-dominance
2. Incomplete dominance
3. Complete dominance
4. Over-dominance

Correct Answer: 1. Co-dominance

Solution:

Step 1: Understanding dominance patterns.

- In **complete dominance**, only one allele is expressed.
- In **incomplete dominance**, the heterozygote shows an intermediate phenotype.
- In **co-dominance**, both alleles in a heterozygote are expressed equally and independently.

Step 2: Applying to AB blood group.

- The ABO blood group system is controlled by the **I** gene with three alleles: I^A , I^B , and i .
- Individuals with genotype $I^A I^B$ express both A and B antigens on their red blood cells.
- Thus, both alleles (I^A and I^B) are equally expressed without blending.

Step 3: Conclusion.

The AB blood group is therefore a classic example of **co-dominance**.

Final Answer:

AB blood group shows Co-dominance.

Quick Tip

Remember: AB blood group = Co-dominance, Snapdragon flower color = Incomplete dominance, Pea plant height = Complete dominance.

Q6. Enzymes are the molecules which -

1. Provides energy to the cell
2. Catalyse biochemical reactions
3. Saves the genetic information
4. Transmits genetic information generation to generation

Correct Answer: 2. Catalyse biochemical reactions

Solution:**Step 1: Recall the role of enzymes.**

Enzymes are biological catalysts, usually proteins (sometimes RNA molecules), that increase the rate of biochemical reactions in living organisms without being consumed.

Step 2: Analyze the options.

- (1) **Provides energy to the cell** → Wrong, ATP provides energy, not enzymes.
- (2) **Catalyse biochemical reactions** → Correct, this is the main function of enzymes.
- (3) **Saves the genetic information** → Wrong, DNA does this, not enzymes.

- (4) **Transmits genetic information generation to generation** → Wrong, this is done by DNA/RNA, not enzymes.

Step 3: Conclusion.

Thus, the correct answer is that enzymes catalyse biochemical reactions.

Final Answer:

Enzymes catalyse biochemical reactions.

Quick Tip

Enzymes act as biological catalysts — they lower the activation energy and speed up biochemical reactions but are not consumed in the process.

Q7. Rickets in growing children are caused due to deficiency of -

1. Vitamin A
2. Vitamin B
3. Vitamin C
4. Vitamin D

Correct Answer: 4. Vitamin D

Solution:

Step 1: Understanding rickets.

Rickets is a childhood bone disorder where bones soften and weaken due to impaired mineralization of growing bones. It commonly leads to bowed legs and skeletal deformities.

Step 2: Role of Vitamin D.

Vitamin D is essential for calcium and phosphorus absorption from the intestine. Its deficiency reduces bone mineralization, leading to rickets.

Step 3: Eliminating wrong options.

- (1) **Vitamin A:** Deficiency causes night blindness, not rickets.
- (2) **Vitamin B:** Deficiency causes beriberi, pellagra, etc., but not rickets.

- (3) **Vitamin C**: Deficiency causes scurvy, not rickets.
- (4) **Vitamin D**: Correct, deficiency causes rickets.

Step 4: Conclusion.

Thus, rickets in children are caused by deficiency of Vitamin D.

Final Answer:

Rickets is caused by deficiency of Vitamin D.

Quick Tip

Vitamin D is also called the "sunshine vitamin". Its deficiency in children causes rickets, while in adults it causes osteomalacia.

Q8. Which among the following is a nitrogen-fixing bacteria -

- (A) Rhizobium
- (B) Azotobacter
- (C) Azospirillum
- (D) Streptococcus

Choose the correct answer from the options given below:

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

Correct Answer: 1. (A), (B) and (C) only

Solution:

Step 1: Recall nitrogen-fixing bacteria.

- **Rhizobium**: Symbiotic nitrogen fixer found in root nodules of legumes.
- **Azotobacter**: Free-living nitrogen fixer present in soil.
- **Azospirillum**: Free-living nitrogen fixer, commonly associated with grasses.

- **Streptococcus**: A pathogenic bacterium, not involved in nitrogen fixation.

Step 2: Construct the correct set.

Thus, nitrogen-fixing bacteria are (A), (B), and (C).

Step 3: Verify options.

This matches with Option 1.

Final Answer:

The correct answer is 1. (A), (B) and (C) only.

Quick Tip

Symbiotic nitrogen fixers (e.g., Rhizobium) live in plant roots, while free-living fixers (e.g., Azotobacter, Azospirillum) live independently in the soil.

Q9. Development of an embryo or seed without fertilization is called -

1. Apomixis
2. Anthesis
3. Self-incompatibility
4. Male sterility

Correct Answer: 1. Apomixis

Solution:

Step 1: Recall the definition of apomixis.

Apomixis is an asexual mode of reproduction in which seeds are formed without fertilization. The embryo develops directly from somatic or gametophytic cells.

Step 2: Evaluate the options.

- **Apomixis**: Correct, it means seed/embryo formation without fertilization.
- **Anthesis**: Refers to the time of flowering, not seed formation.
- **Self-incompatibility**: A mechanism preventing self-fertilization in flowers.
- **Male sterility**: Inability to produce viable pollen, not related to apomixis.

Step 3: Conclusion.

Therefore, the correct answer is Apomixis.

Final Answer:

Apomixis is the development of seed without fertilization.

Quick Tip

Apomixis ensures seed formation without fertilization. It is useful in agriculture for producing hybrid seeds without repeated crossing.

Q10. Syngamy led to formation of a specialized cell called -

1. Polar nuclei
2. Zygote
3. Antipodal cells
4. Endosperm

Correct Answer: 2. Zygote

Solution:

Step 1: Understanding syngamy.

Syngamy refers to the fusion of the male gamete (sperm) and the female gamete (egg cell) during fertilization.

Step 2: Result of syngamy.

- The fusion produces a diploid cell, known as the **zygote**, which is the first cell of the new organism. - Other structures: - Polar nuclei are involved in triple fusion (to form endosperm). - Antipodal cells are part of the embryo sac and remain unfertilized. - Endosperm forms after triple fusion, not syngamy.

Step 3: Conclusion.

Hence, syngamy specifically results in the formation of a **zygote**.

Final Answer:

Syngamy results in the formation of a Zygote.

Quick Tip

Remember: Syngamy → Zygote (2n); Triple fusion → Endosperm (3n). These two events together are called double fertilization in flowering plants.

Q11. Match List-I with List-II.

List-I (Animal)	List-II (Breed)
(A) Buffalo	(I) Sunandini
(B) Cow	(II) White Leghorn
(C) Poultry	(III) Toggenburg
(D) Goat	(IV) Nili-Ravi

Choose the correct answer from the options given below:

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

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

Solution:**Step 1: Recall important breeds.**

- **Buffalo** → **Nili-Ravi (IV)**: A famous buffalo breed from Punjab region.
- **Cow** → **Sunandini (I)**: A cattle breed developed in Kerala.
- **Poultry** → **White Leghorn (II)**: An important poultry breed for egg production.
- **Goat** → **Toggenburg (III)**: A goat breed known for milk production.

Step 2: Construct the correct matching.

(A) → (IV) Buffalo - Nili-Ravi

(B) → (I) Cow - Sunandini

(C) → (II) Poultry - White Leghorn

(D) → (III) Goat - Toggenburg

Step 3: Verify options.

This matches Option 3.

Final Answer:

The correct answer is 3. (A) - (IV), (B) - (I), (C) - (II), (D) - (III)

Quick Tip

Remember: Nili-Ravi (Buffalo), Sunandini (Cow), White Leghorn (Poultry), Toggenburg (Goat). These are frequently asked in animal husbandry-related questions.

Q12. According to egg production, arrange the poultry breeds in descending order -

- (A) White Leghorn
- (B) Rhode Island Red
- (C) Assel
- (D) Giriraja

Choose the correct answer from the options given below:

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

Correct Answer: 1. (A), (B), (D), (C)

Solution:

Step 1: Recall egg production capacity of breeds.

- **White Leghorn:** Famous for very high egg production (commercial layer breed).
- **Rhode Island Red:** Dual-purpose breed (meat + eggs), moderate to high egg production.
- **Giriraja:** An improved Indian backyard poultry breed, moderate egg production.
- **Assel:** A traditional breed, mainly used for cockfighting, produces very few eggs.

Step 2: Arrange in descending order.

(A) White Leghorn ¿ (B) Rhode Island Red ¿ (D) Giriraja ¿ (C) Assel

Step 3: Verify with given options.

This order matches **Option 1**.

Final Answer:

The descending order is (A), (B), (D), (C).

Quick Tip

White Leghorn is the global standard for egg-laying breeds. Traditional Indian breeds like Assel are poor layers but valued for strength and hardiness.

Q13. Which crop produce is widely used to feed poultry birds in India?

1. Maize
2. Rice
3. Wheat
4. Oat

Correct Answer: 1. Maize

Solution:

Step 1: Poultry feed requirements.

Poultry birds require energy-rich food grains, proteins, vitamins, and minerals for growth and egg production.

Step 2: Role of maize.

- **Maize** is the most widely used cereal in poultry feed as it provides a high amount of carbohydrates (energy source), is easily digestible, and relatively cheap in India.
- **Rice**: Not commonly used as poultry feed in large scale due to cost and availability.
- **Wheat**: Sometimes used, but less economical and less digestible than maize.
- **Oat**: Rarely used in poultry feed in India.

Step 3: Conclusion.

Hence, maize is the primary crop used for poultry feed in India.

Final Answer:

Maize is the main crop used as poultry feed in India.

Quick Tip

Maize makes up the bulk of commercial poultry feed in India, providing energy. Protein sources like soybean meal are mixed with it for balanced nutrition.

Q14. Fermented produce of green forage is called -

1. Hay
2. Green manure
3. Silage
4. Green cakes

Correct Answer: 3. Silage

Solution:**Step 1: Understanding forage preservation.**

Green fodder is preserved for cattle either by drying or fermenting: - Drying fodder → Hay. - Fermentation in anaerobic condition → Silage.

Step 2: Analyze the options.

- **Hay**: Dried grass, not fermented.

- **Green manure:** Crops grown to be ploughed back into soil, not fodder preservation.
- **Silage:** Fermented green fodder stored in pits or silos, preserves nutrients for cattle.
- **Green cakes:** Oil cakes, used as cattle feed but not fermented forage.

Step 3: Conclusion.

Thus, fermented produce of green forage is called **silage**.

Final Answer:

Silage is the fermented product of green forage.

Quick Tip

Silage is prepared in pits or silos under anaerobic conditions. It retains maximum nutrients and is ideal for feeding cattle in lean seasons.

Q15. The lameness, swelling over shoulders and thighs, high temperature, death in three days to a cattle are principal symptoms of:

1. Anthrax
2. Galaghotu
3. Pneumonia
4. Black quarter

Correct Answer: 4. Black quarter

Solution:

Step 1: Identify disease symptoms.

Black quarter (also called Blackleg) is a highly fatal disease in cattle caused by *Clostridium chauvoei*. Symptoms include: - Lameness. - Painful swelling on shoulders, thighs, and hips. - High fever. - Sudden death within 1–3 days.

Step 2: Check other diseases.

- **Anthrax:** Causes sudden death with bleeding from natural orifices. Symptoms differ.
- **Galaghotu:** Local disease name, not linked here.

- **Pneumonia**: Causes respiratory distress, not lameness and swelling.

Step 3: Conclusion.

The described symptoms match **Black quarter**.

Final Answer:

The disease is Black quarter.

Quick Tip

Black quarter affects young cattle and buffaloes. Vaccination is the best preventive measure.

Q16. Hisardale is a new breed of sheep resulted from cross of -

1. Bikaneri ewes and Marino rams
2. Bikaneri rams and Marino ewes
3. Bikaneri ewes and Bikaneri rams
4. Marino ewes and Marino rams

Correct Answer: 1. Bikaneri ewes and Marino rams

Solution:

Step 1: Recall Hisardale sheep breeding.

Hisardale is a synthetic breed developed at Hisar (Haryana, India). It was produced to combine the hardiness of Indian breeds with the superior wool quality of exotic breeds.

Step 2: Parent breeds.

- Female parent: **Bikaneri ewes** (native Indian breed). - Male parent: **Merino rams** (exotic breed with fine wool).

Step 3: Conclusion.

Hence, Hisardale sheep is a cross between Bikaneri ewes and Merino rams.

Final Answer:

Hisardale = Bikaneri ewes × Merino rams

Quick Tip

Hisardale sheep was developed to improve wool yield and quality in India by combining native adaptability with Merino's fine wool traits.

Q17. Arrange the dairy cattle and buffaloes with respect to average age at maturity for puberty and sexual maturity in decreasing order -

- (A) Purebred exotic cattle
- (B) Zebu cattle
- (C) Buffaloes
- (D) Crossbreed cattle

Choose the correct answer from the options given below:

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

Correct Answer: 1. (C), (D), (A), (B)

Solution:

Step 1: General maturity ages.

- **Buffaloes (C):** Attain puberty later, usually 36–42 months.
- **Crossbreed cattle (D):** Mature around 24–30 months.
- **Purebred exotic cattle (A):** Mature around 18–24 months.
- **Zebu cattle (B):** Indigenous cattle, mature early around 15–18 months.

Step 2: Decreasing order (highest → lowest).

Buffaloes (C) ∷ Crossbreed cattle (D) ∷ Purebred exotic cattle (A) ∷ Zebu cattle (B)

Step 3: Match with options.

This corresponds to **Option 1**.

Final Answer:

The decreasing order is (C), (D), (A), (B).

Quick Tip

Buffaloes take the longest to mature, while indigenous Zebu cattle mature earliest. Crossbreeds and exotic breeds fall in between.

Q18. Frozen milk products include -

- (A) Kulfi
- (B) Ice-cream
- (C) Ghee
- (D) Dahi

Choose the correct answer from the options given below:

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

Correct Answer: 1. (A) and (B) only

Solution:

Step 1: Recall frozen milk products.

Frozen milk products are those stored and consumed in frozen form.

Step 2: Analyze the options.

- **Kulfi (A):** Traditional frozen dairy dessert.
- **Ice-cream (B):** Frozen milk product.
- **Ghee (C):** Clarified butterfat, not frozen.
- **Dahi (D):** Fermented milk (curd), not frozen.

Step 3: Conclusion.

Thus, frozen milk products include **Kulfi and Ice-cream only**.

Final Answer:

Frozen milk products = Kulfi and Ice-cream.

Quick Tip

Remember: Frozen milk products are desserts like Kulfi and Ice-cream. Fermented milk products include Dahi, while fat-based products include Ghee.

Q19. Fat rich milk products exclude -

- (A) Butter
- (B) Khoa
- (C) Ghee
- (D) Kulfi

Choose the correct answer from the options given below:

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

Correct Answer: 2. (B) and (D) only

Solution:

Step 1: Recall fat-rich milk products.

- Fat-rich milk products are those in which fat is the main component. - Examples: Butter and Ghee.

Step 2: Analyze the given items.

- **Butter (A):** Very high in milk fat (around 80%). Fat-rich.
- **Khoa (B):** Concentrated milk solids, rich in proteins and carbohydrates, not primarily fat-rich.

- **Ghee (C):** Clarified butter, nearly 100% fat. Fat-rich.
- **Kulfi (D):** A frozen dessert with milk, sugar, and flavors. It contains some fat but is not classified as a fat-rich product.

Step 3: Conclusion.

Fat-rich milk products exclude **Khoa and Kulfi**.

Final Answer:

Fat-rich milk products exclude (B) Khoa and (D) Kulfi.

Quick Tip

Butter and Ghee are fat-dense milk products. Khoa and Kulfi belong to other categories (concentrated/ frozen), not fat-rich.

Q20. National Fish Farmers Day is celebrated in India on -

1. 15 June
2. 10 July
3. 5 August
4. 2 September

Correct Answer: 2. 10 July

Solution:

Step 1: Recall significance.

National Fish Farmers Day is celebrated in India to honor fish farmers and recognize their contribution to aquaculture and fisheries.

Step 2: Historical reason.

The date **10 July** marks the success of induced breeding of Indian major carps (*Rohu*, *Catla*, *Mrigal*) achieved by Dr. Hiralal Chaudhary and Dr. Alikunhi in 1957.

Step 3: Conclusion.

Hence, National Fish Farmers Day is observed on **10 July**.

Final Answer:

National Fish Farmers Day is celebrated on 10 July.

Quick Tip

Remember: 10 July is linked to the breakthrough of induced breeding of Indian major carps in 1957, marking a milestone in aquaculture.

Q21. The National Genebank in India was started in -

1. 1983
2. 2023
3. 1992
4. 2001

Correct Answer: 3. 1992

Solution:

Step 1: Purpose of the National Genebank.

The National Genebank in India was established to conserve plant genetic resources, ensuring biodiversity preservation and food security for future generations.

Step 2: Establishment year.

- It was started in **1992** at the National Bureau of Plant Genetic Resources (NBPGR), New Delhi.
- Other years given are incorrect: - 1983: Too early, before formal establishment.
- 2001: Incorrect, already functional before that.
- 2023: Clearly wrong.

Step 3: Conclusion.

The correct year is 1992.

Final Answer:

The National Genebank was started in 1992.

Quick Tip

The National Genebank at NBPGR, New Delhi, conserves seeds, cryopreserved tissues, and DNA to ensure crop biodiversity is preserved for the future.

Q22. Covering the surface of the soil by any material is known as -

1. Green manuring
2. Conservation tillage
3. Mulching
4. Contour farming

Correct Answer: 3. Mulching

Solution:

Step 1: Define mulching.

Mulching is an agricultural practice where the soil surface is covered with organic or inorganic material to conserve moisture, regulate temperature, and reduce weed growth.

Step 2: Analyze options.

- **Green manuring:** Incorporating green plants into soil for fertility, not surface covering.
- **Conservation tillage:** Reducing ploughing to conserve soil, different from covering.
- **Mulching:** Correct, covering soil with straw, leaves, plastic, etc.
- **Contour farming:** Cultivation along slopes, not covering.

Step 3: Conclusion.

Hence, covering soil surface is known as mulching.

Final Answer:

The practice is called Mulching.

Quick Tip

Mulching conserves soil moisture, suppresses weeds, and prevents erosion. Both organic (straw, leaves) and inorganic (plastic sheets) materials can be used.

Q23. The nutrient moves up only in acropetal direction through xylem found in the plant system for:

1. Nitrogen
2. Calcium
3. Sulphur
4. Potassium

Correct Answer: 2. Calcium

Solution:

Step 1: Recall nutrient mobility in plants.

- Some nutrients are mobile in plants, meaning they can move both upwards (acropetal) and downwards (basipetal). - Some nutrients are immobile and move only acropetally through xylem.

Step 2: Behavior of Calcium.

- Calcium is absorbed from the soil and transported only upward (acropetal movement) in the xylem. - It is not retranslocated from older to younger tissues, making it immobile in phloem. - Hence, deficiency symptoms appear first in young tissues.

Step 3: Eliminate other options.

- **Nitrogen:** Mobile, moves through xylem and phloem.
- **Sulphur:** Semi-mobile, but not strictly acropetal.
- **Potassium:** Highly mobile nutrient.

Step 4: Conclusion.

The nutrient with acropetal-only movement in xylem is **Calcium**.

Final Answer:

Calcium moves only acropetally in plants.

Quick Tip

Calcium is immobile in plants; deficiency causes stunted growth, necrosis at tips, and blossom-end rot in tomatoes.

Q24. Glyphosate is used for weed control as a

1. Post-emergence selective herbicide
2. Post-emergence non-selective herbicide
3. Pre-emergence selective herbicide
4. Pre-emergence non-selective herbicide

Correct Answer: 2. Post-emergence non-selective herbicide

Solution:

Step 1: Understand glyphosate.

Glyphosate is a widely used systemic herbicide. It inhibits the enzyme EPSP synthase (5-enolpyruvylshikimate-3-phosphate synthase), blocking the shikimic acid pathway essential for amino acid synthesis in plants.

Step 2: Classify it by stage and selectivity.

- **Stage:** Glyphosate is applied after the emergence of weeds, i.e., it is a **post-emergence** herbicide.

- **Selectivity:** Glyphosate kills a wide range of plants (grasses, broadleaf weeds, shrubs, even trees), meaning it is **non-selective**.

Step 3: Eliminate incorrect options.

- (1) Post-emergence selective herbicide → Wrong, it is not selective.
- (2) Post-emergence non-selective herbicide → Correct.
- (3) Pre-emergence selective herbicide → Wrong, glyphosate is not pre-emergence.
- (4) Pre-emergence non-selective herbicide → Wrong, it is not pre-emergence.

Step 4: Conclusion.

Hence, glyphosate is a **post-emergence non-selective herbicide**.

Final Answer:

Glyphosate is a post-emergence non-selective herbicide.

Quick Tip

Remember: Glyphosate is systemic, post-emergence, and non-selective. It is used in zero-tillage farming, plantation crops, and to clear weeds before sowing.

Q25. Nagarjunasagar project was established on river

1. Krishna
2. Godavari
3. Pennar
4. Mahanadi

Correct Answer: 1. Krishna

Solution:

Step 1: Recall the Nagarjunasagar project.

The Nagarjunasagar dam is one of the largest masonry dams in the world. It was built for irrigation, hydroelectric power generation, and water supply purposes.

Step 2: Identify the river.

The project is situated in Andhra Pradesh and Telangana on the **Krishna River**. It provides irrigation to a large command area and is a landmark multipurpose river valley project in India.

Step 3: Eliminate other rivers.

- Godavari River is the site of projects like Polavaram and Jayakwadi, not Nagarjunasagar. - Pennar River has smaller irrigation projects, but not Nagarjunasagar. - Mahanadi River has the Hirakud Dam, not Nagarjunasagar.

Step 4: Conclusion.

Therefore, Nagarjunasagar project was established on the Krishna River.

Final Answer:

Nagarjunasagar project is on the Krishna River.

Quick Tip

Remember: Nagarjunasagar → Krishna River, Hirakud → Mahanadi, Sardar Sarovar → Narmada, Bhakra Nangal → Sutlej.

Q26. Arrange the sugarcane ratoon management practices in proper sequence -

- (A) Emerged shoots cut at ground level.
- (B) Sides of ridges are broken by plough.
- (C) First irrigation is given 3 to 4 weeks after harvesting.
- (D) Nutrients are given and an earthing up operation should be done.

Choose the correct answer from the options given below:

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

Correct Answer: 1. (A), (B), (C), (D)

Solution:

Step 1: Recall ratoon crop management.

Ratoon management in sugarcane involves practices after the harvest of the main crop to ensure good regrowth.

Step 2: Sequence of practices.

- 1. **Emerged shoots are cut at ground level (A)** → To remove unproductive shoots and encourage uniform tillering.
- 2. **Sides of ridges are broken by plough (B)** → This helps in aeration and better soil contact for new shoots.
- 3. **First irrigation is given after 3–4 weeks (C)** → Ensures proper sprouting and growth of ratoon crop.
- 4. **Nutrients are given and earthing up done (D)** → Supplies essential nutrients and stabilizes the crop.

Step 3: Conclusion.

Hence, the correct order is (A), (B), (C), (D).

Final Answer:

Correct sequence = (A), (B), (C), (D).

Quick Tip

Ratoon management is critical for higher yield. Immediate care after harvest ensures healthy regrowth and better productivity.

Q27. Gramineae family crop includes -

- (A) Groundnut
- (B) Gram
- (C) Wheat
- (D) Paddy

Choose the correct answer from the options given below:

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

Correct Answer: 1. (C) and (D) only

Solution:

Step 1: Recall Gramineae family (Poaceae).

The Gramineae or Poaceae family includes monocot plants commonly called grasses. Major cereal crops such as wheat, rice (paddy), maize, and barley belong to this family.

Step 2: Analyze the options.

- **Groundnut (A):** Belongs to the Leguminosae family, not Gramineae. - **Gram (B):** Also belongs to the Leguminosae family. - **Wheat (C):** A cereal crop in Gramineae. - **Paddy (D):** Also a cereal crop in Gramineae.

Step 3: Conclusion.

Therefore, crops from the Gramineae family are Wheat and Paddy.

Final Answer:

Gramineae family crops include (C) Wheat and (D) Paddy.

Quick Tip

Gramineae = cereals like wheat, rice, maize, barley. Leguminosae = pulses like gram, groundnut, pea.

Q28. Arrange the proper steps in sequence for wheat harvesting -

- (A) Winnowing and storage.
- (B) Threshing.
- (C) Plants are bundled and dried for a few days.
- (D) Cutting the plants close to ground level.

Choose the correct answer from the options given below:

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

Correct Answer: 1. (D), (C), (B), (A)

Solution:

Step 1: Recall harvesting process in wheat.

Harvesting of wheat involves multiple operations after crop maturity to ensure safe storage.

Step 2: Arrange the sequence.

1. **Cutting the plants close to ground level (D)** is the first step. 2. **Plants are bundled and dried (C)** for a few days under the sun. 3. **Threshing (B)** is then done to separate grains

from husks and straw. 4. **Winnowing and storage (A)** is the final step to clean and preserve the grains.

Step 3: Conclusion.

Thus, the correct order is (D), (C), (B), (A).

Final Answer:

Correct sequence = (D), (C), (B), (A).

Quick Tip

Remember: Wheat harvesting steps → Cutting → Drying → Threshing → Winnowing/Storage.

Q29. How much percentage of earth's surface is constituted by ocean?

1. 65%
2. 71%
3. 79%
4. 81%

Correct Answer: 2. 71%

Solution:

Step 1: Total earth surface.

The earth's total surface area is about 510 million square kilometers.

Step 2: Oceans and land distribution.

- About 71% of the surface is covered by oceans (Pacific, Atlantic, Indian, Arctic, Southern).
- The remaining 29% is land (continents and islands).

Step 3: Eliminate other options.

65%, 79%, and 81% are incorrect figures. The scientifically accurate figure is 71%.

Final Answer:

Oceans cover 71% of earth's surface.

Quick Tip

Remember: Oceans = 71% of earth's surface, Land = 29%. The Pacific Ocean alone accounts for about one-third of total ocean area.

Q30. Match List-I with List-II.

List-I (Crop)	List-II (Variety)
(A) Wheat	(I) Virat
(B) Paddy	(II) CO-86032
(C) Sugarcane	(III) IR-8
(D) Gram	(IV) HD-2496

Choose the correct answer from the options given below:

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

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

Solution:

Step 1: Recall crop-variety associations.

- **Wheat** → **HD-2496 (IV)**: A high-yielding wheat variety. - **Paddy** → **IR-8 (III)**: Famous high-yielding rice variety, known as “miracle rice.” - **Sugarcane** → **CO-86032 (II)**: A popular sugarcane variety in India. - **Gram** → **Virat (I)**: A variety of chickpea.

Step 2: Conclusion.

Thus, the correct matching is:

(A) – (IV), (B) – (III), (C) – (II), (D) – (I)

Final Answer:

Correct answer = Option 1.

Quick Tip

Remember crop-variety pairs: Wheat–HD 2496, Paddy–IR 8, Sugarcane–CO 86032, Gram–Virat.

Q31. When fruits and vegetables are brought suddenly to a very low temperature at which all the chemical reactions stop, it is known as -

1. Freezing
2. Drying
3. Fermentation
4. Pickling

Correct Answer: 1. Freezing

Solution:

Step 1: Understanding the preservation method.

Freezing is a method of food preservation where food is kept at very low temperatures (usually below -18°C). At such low temperatures, enzyme activity and microbial growth are stopped, preventing spoilage.

Step 2: Analyze the given options.

- Freezing → Stops chemical and microbial reactions. Correct. - Drying → Removes moisture, does not involve very low temperature. - Fermentation → Controlled microbial activity, not inhibition of reactions. - Pickling → Uses salt, vinegar, or oil for preservation, not temperature.

Step 3: Conclusion.

Thus, the process described is freezing.

Final Answer:

The process is called Freezing.

Quick Tip

Freezing is the most effective method of long-term storage for fruits and vegetables, as it preserves flavor, color, and nutrients.

Q32. Match List-I with List-II.

List-I (Crop)	List-II (Variety)
(A) Tomato	(I) Pusa Purple Long
(B) Brinjal	(II) Kufri Chipsona-1
(C) Mango	(III) Pusa Ruby
(D) Potato	(IV) Amrapali

Choose the correct answer from the options given below:

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

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

Solution:

Step 1: Match each crop with its variety.

- Tomato → Pusa Ruby (III) - Brinjal → Pusa Purple Long (I) - Mango → Amrapali (IV) -
Potato → Kufri Chipsona-1 (II)

Step 2: Verify.

This matching exactly fits option 1.

Final Answer:

Correct matching is (A)-(III), (B)-(I), (C)-(IV), (D)-(II).

Quick Tip

Remember crop-variety pairs: Tomato–Pusa Ruby, Brinjal–Pusa Purple Long, Mango–Amrapali, Potato–Kufri Chipsona-1.

Q33. Standard, Spray or bush form, Pot-mums and Coniform are the different types of -

1. Marigold
2. Gladiolus
3. Chrysanthemum
4. Rose

Correct Answer: 3. Chrysanthemum

Solution:

Step 1: Recall types of flower crops.

Chrysanthemums are popular ornamental flowers. They are grown in different forms for decorative and commercial purposes.

Step 2: Types of Chrysanthemum.

- Standard type: Large single flower per stem. - Spray or bush form: Multiple flowers on one stem. - Pot-mums: Grown in pots for decoration. - Coniform: Special shaped form.

Step 3: Eliminate other crops.

Marigold, Gladiolus, and Rose do not have these specific classifications.

Final Answer:

The types belong to Chrysanthemum.

Quick Tip

Chrysanthemum is called the “Queen of the East” and has multiple commercial and decorative forms like Standard, Spray, Pot-mums, and Coniform.

Q34. The commercially adopted propagation method in India for Grand Naine banana is -

1. Seed
2. Sword sucker
3. Tissue culture
4. Water sucker

Correct Answer: 3. Tissue culture

Solution:

Step 1: Nature of Grand Naine banana.

Grand Naine is a high-yielding Cavendish banana variety, widely cultivated in India. It is sterile and does not produce viable seeds.

Step 2: Methods of propagation.

- Sword suckers: Traditional method for banana propagation, but limited in scale. - Tissue culture: Commercially adopted method as it ensures large-scale, disease-free, and uniform planting material. - Water suckers: Not preferred as they are weak and less productive. - Seeds: Not possible since commercial bananas are seedless.

Step 3: Conclusion.

Hence, tissue culture is the commercially adopted method for Grand Naine banana in India.

Final Answer:

Grand Naine banana is propagated commercially by Tissue culture.

Quick Tip

Tissue culture provides uniform, early-maturing, and disease-free banana plants, making it suitable for large-scale commercial farming.

Q35. The grape variety grown for juice extraction is:

1. Bhokari

2. Dilkush
3. Sonaka
4. Bangalore Blue

Correct Answer: 4. Bangalore Blue

Solution:

Step 1: Identify juice varieties.

Among Indian grape varieties, **Bangalore Blue** is famous for juice, squash, and wine production.

Step 2: Analyze other varieties.

- Bhokari: Mostly used for table purposes. - Dilkush: A table grape variety. - Sonaka: Seedless table grape, not primarily for juice.

Step 3: Conclusion.

Thus, Bangalore Blue is the standard variety grown for juice extraction.

Final Answer:

Bangalore Blue is the grape variety used for juice extraction.

Quick Tip

Remember: Bangalore Blue is popular for juice and wine, while Sonaka and Dilkush are table varieties.

Q36. Which of the following cabbage variety is resistant to black rot disease?

1. Pusa Ageti
2. Pusa Drum Head
3. Pusa Mukta
4. September

Correct Answer: 3. Pusa Mukta

Solution:**Step 1: Understanding black rot in cabbage.**

Black rot is a serious bacterial disease of crucifers caused by *Xanthomonas campestris* pv. *campestris*. It reduces head quality and yield drastically.

Step 2: Resistant variety.

- **Pusa Mukta** is a cabbage variety specifically bred for resistance to black rot disease. - Pusa Ageti and Pusa Drum Head are popular varieties but not resistant to black rot. - September is another non-resistant variety.

Step 3: Conclusion.

Hence, the black rot resistant variety of cabbage is Pusa Mukta.

Final Answer:

Pusa Mukta is resistant to black rot disease.

Quick Tip

Pusa Mukta = Black rot resistant cabbage. Remember: Resistance breeding is crucial to control bacterial and viral diseases in vegetables.

Q37. Arrange proper sequence of the steps in stone grafting in Mango -

- (A) Top portion of the root stock is cut off leaving 7 to 8 cm stem.
- (B) The scion is inserted in the vertical cut of the root stock and tied with polythene strip.
- (C) A scion is given slanting cuts from both the ends giving it a wedge shape.
- (D) A vertical cut of about 2-3 cm length is given to it.

Choose the correct answer from the options given below:

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

Correct Answer: 1. (A), (D), (C), (B)

Solution:**Step 1: Preparation of rootstock.**

The top portion of the rootstock is cut leaving a 7–8 cm stem (A).

Step 2: Making the cut.

A vertical cut of 2–3 cm is given on the rootstock stem (D).

Step 3: Preparation of scion.

A scion is given slanting cuts on both sides to make a wedge shape (C).

Step 4: Joining and tying.

The scion is inserted in the vertical cut of the rootstock and tied with a polythene strip (B).

Step 5: Conclusion.

Thus, the correct order is (A), (D), (C), (B).

Final Answer:

Correct sequence = (A), (D), (C), (B).

Quick Tip

In mango stone grafting → Rootstock preparation → Vertical cut → Scion wedge preparation → Insertion and tying.

Q38. Which of the following planting systems is generally followed on the hills for the establishment of a fruit orchard?

1. Square system
2. Rectangular system
3. Hexagonal system
4. Contour system

Correct Answer: 4. Contour system

Solution:**Step 1: Planting systems overview.**

Planting systems are chosen based on topography, slope, and soil conditions.

Step 2: Hillside planting.

On hilly terrains, planting across the slope (contour planting) is followed to reduce soil erosion and conserve moisture.

Step 3: Elimination of other systems.

- Square and rectangular systems are suitable for plain lands. - Hexagonal system is also practiced on plains for maximum utilization of land. - Only the contour system is suitable for hills.

Step 4: Conclusion.

Hence, on hills, the contour system is adopted.

Final Answer:

Fruit orchards on hills are planted using the Contour system.

Quick Tip

Contour planting reduces soil erosion and increases water infiltration, making it ideal for hilly regions.

Q39. Which of the following combinations of fruits and vegetables are the richest source of Vitamin-A?

- (A) Mango, carrot, spinach
- (B) Sweet orange, acid lime
- (C) Papaya, leafy vegetables
- (D) Aonla, Guava

Choose the correct answer from the options given below:

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

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

Correct Answer: 3. (A) and (C) only

Solution:

Step 1: Sources of Vitamin A.

Vitamin A is abundant in carotene-rich fruits and vegetables. These include mango, papaya, carrot, spinach, and other leafy vegetables.

Step 2: Analyze each group.

- (A) Mango, carrot, spinach → All are rich in Vitamin A. - (B) Sweet orange, acid lime → Citrus fruits, rich in Vitamin C, not Vitamin A. - (C) Papaya, leafy vegetables → Good sources of Vitamin A. - (D) Aonla, guava → Mainly Vitamin C sources.

Step 3: Conclusion.

Therefore, the richest Vitamin A sources are combinations (A) and (C).

Final Answer:

Vitamin A rich combinations = (A) Mango, carrot, spinach and (C) Papaya, leafy vegetables.
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Quick Tip

Remember: Yellow-orange fruits (mango, papaya, carrot) and dark green leafy vegetables are the richest sources of Vitamin A.

Q40. Among the following which fruit is a richest source of ascorbic acid?

1. Winter guava
2. Acid lime
3. Sweet orange
4. Aonla

Correct Answer: 4. Aonla

Solution:

Step 1: Understanding ascorbic acid.

Ascorbic acid is Vitamin C, an essential nutrient that acts as an antioxidant and boosts immunity. Fruits like guava, citrus, and amla (Aonla) are rich in Vitamin C.

Step 2: Compare the given fruits.

- **Winter guava:** Rich in Vitamin C, but not the highest. Contains about 200 mg/100 g. -

Acid lime: Citrus fruit, also a good source, around 50 mg/100 g. - **Sweet orange:** Contains moderate Vitamin C, around 40–60 mg/100 g. - **Aonla (Indian gooseberry):** Exceptionally rich source, contains 600–900 mg/100 g, the richest among commonly available fruits.

Step 3: Conclusion.

Thus, Aonla is the richest source of ascorbic acid among the given fruits.

Final Answer:

Aonla is the richest source of ascorbic acid (Vitamin C).

Quick Tip

Aonla (Indian gooseberry) is the richest natural source of Vitamin C, far higher than guava or citrus fruits.

Passage: Kisan Credit Card (KCC)

The farmers in India have to face a lot of difficulty in arranging short-term funds for the planting and harvesting season and to meet other agricultural needs. They are largely dependent on credit from the unorganized sector such as moneylenders who charge exorbitant rates of interest. Realizing the need for such short-term credit, the Kisan Credit Card scheme was launched by the Reserve Bank of India and National Bank for Agriculture and Rural Development (NABARD). The Kisan Credit Card is a credit scheme introduced in August 1998 by Indian banks. The model scheme was prepared by NABARD on the recommendations of the R.V. Gupta committee to provide term loans and agricultural needs. Under the Kisan Credit Card scheme, customers can get two types of credit, i.e., cash credit and term loans. A short-term credit limit is offered on the Kisan credit card for smaller

agricultural needs. Term loans can also be taken for cultivation, buying equipment, irrigation, etc. The farmers also receive a passbook which contains all the relevant details of land holding, credit limit, validity, etc. The repayment period in Kisan credit cards is up to a maximum of 12 months and the card is valid for a period between 3–5 years.

Q41. Kisan credit card scheme is introduced in -

1. August 1998
2. July 2002
3. August 1993
4. June 1998

Correct Answer: 1. August 1998

Solution:

Step 1: Recall the passage.

The passage clearly states that the Kisan Credit Card scheme was introduced in **August 1998** by Indian banks.

Step 2: Eliminate incorrect options.

- July 2002 → Not mentioned in the passage.
- August 1993 → Wrong, scheme did not exist.
- June 1998 → Incorrect month.

Step 3: Conclusion.

Thus, the correct year and month of introduction is **August 1998**.

Final Answer:

Kisan Credit Card scheme was introduced in August 1998.

Quick Tip

Always note the launch year of important agricultural schemes — Kisan Credit Card (1998), PM-Kisan (2019), etc.

Q42. Full form of NABARD is -

1. National Bank of Development
2. National Bank for Agriculture and Rural Development
3. National Bank for Agriculture Development
4. National Bank for Rural Development

Correct Answer: 2. National Bank for Agriculture and Rural Development

Solution:

Step 1: Recall the expansion.

NABARD stands for **National Bank for Agriculture and Rural Development**. It is an apex development financial institution in India.

Step 2: Eliminate incorrect options.

- National Bank of Development → Incomplete and incorrect.
- National Bank for Agriculture Development → Missing "Rural".
- National Bank for Rural Development → Missing "Agriculture".

Step 3: Conclusion.

Thus, the correct full form is option (2).

Final Answer:

NABARD = National Bank for Agriculture and Rural Development.

Quick Tip

NABARD was established in 1982 to promote sustainable agriculture and rural development in India.

Q43. The repayment period in Kisan Credit Card is maximum up to -

1. 9 months
2. 24 months

3. 12 months
4. 20 months

Correct Answer: 3. 12 months

Solution:

Step 1: Recall passage information.

The passage clearly mentions that the repayment period in Kisan Credit Cards is up to a maximum of **12 months**.

Step 2: Eliminate other options.

- 9 months → Too short.
- 24 months and 20 months → Not mentioned in the scheme.

Step 3: Conclusion.

Hence, the repayment period is maximum 12 months.

Final Answer:

Kisan Credit Card repayment period = 12 months.

Quick Tip

Short-term KCC loans are repayable within 12 months, while long-term loans can extend for cultivation or equipment.

Q44. Kisan Credit Card is the model scheme that was prepared by NABARD on the recommendations of -

1. M. S. Swaminathan Committee
2. Philip Kotler Committee
3. Rane Committee
4. R. V. Gupta Committee

Correct Answer: 4. R. V. Gupta Committee

Solution:

Step 1: Recall from passage.

The passage specifies that the Kisan Credit Card model scheme was prepared by NABARD based on the recommendations of the **R. V. Gupta Committee**.

Step 2: Eliminate other committees.

- M. S. Swaminathan Committee → Related to food security and agricultural reforms.
- Philip Kotler Committee → Not relevant (Kotler is a marketing expert).
- Rane Committee → Different recommendations.

Step 3: Conclusion.

Hence, the correct answer is R. V. Gupta Committee.

Final Answer:

R. V. Gupta Committee recommended the Kisan Credit Card scheme.

Quick Tip

Always link schemes with committees: KCC → R.V. Gupta Committee, Food Security → M.S. Swaminathan.

Q45. The Kisan Credit Card is valid for a period of -

1. 3–5 years
2. 9–12 years
3. 13–15 years
4. 20–25 years

Correct Answer: 1. 3–5 years

Solution:**Step 1: Recall passage information.**

The passage clearly states that the Kisan Credit Card is valid for a period between **3–5 years**.

Step 2: Eliminate incorrect options.

- 9–12 years, 13–15 years, 20–25 years → Too long and not mentioned in the scheme.

Step 3: Conclusion.

Thus, the validity period is 3–5 years.

Final Answer:

Kisan Credit Card validity = 3–5 years.

Quick Tip

KCC has a validity of 3–5 years with annual reviews, making it suitable for both short and medium-term agricultural credit.

Passage: Coconut

Botanical name of coconut is the **Cocos nucifera** and family is Arecaceae. The coconut tree is a member of the palm tree family. The term "coconut" can refer to the whole coconut palm, the seed, or the fruit, which botanically is a drupe and not a nut.

Coconuts are known for their versatility of uses, ranging from food to cosmetics. The inner flesh of the mature seed forms a regular part of the diets of many people known as Khobara. Coconuts are distinct from other fruits because their endosperm contains a large quantity of clear liquid and when immature, may be harvested for their coconut water known as Shahale. Mature, ripe coconuts can be used as prasad or nariyal or processed for oil and coconut milk from the flesh, charcoal from the hard shell, cocopeat and coir from fibrous husk. Dried coconut flesh is called copra, and the oil derived from it is commonly used in cooking as well as in making soaps and cosmetics. Long pinnate leaves can be used as raw material to make a variety of products for furnishing and decorating, brooms, chatai, etc. The coconut fruit also has cultural and religious significance in certain societies.

Q46. *Cocos nucifera* is the botanical name of -

1. Papaya
2. Arecanut
3. Cashew nut
4. Coconut

Correct Answer: 4. Coconut

Solution:

Step 1: Recall from passage.

The passage clearly states that the botanical name of coconut is **Cocos nucifera**.

Step 2: Eliminate incorrect options.

- Papaya → Botanical name is *Carica papaya*.
- Arecanut → Botanical name is *Areca catechu*.
- Cashew nut → Botanical name is *Anacardium occidentale*.

Step 3: Conclusion.

Thus, *Cocos nucifera* refers to Coconut.

Final Answer:

Cocos nucifera = Coconut.

Quick Tip

Always remember botanical names of common crops — Coconut = *Cocos nucifera*, Papaya = *Carica papaya*, Arecanut = *Areca catechu*, Cashew = *Anacardium occidentale*.

Q47. Family of coconut is -

1. Gramineae
2. Arecaceae
3. Leguminosae
4. Anacardiaceae

Correct Answer: 2. Arecaceae

Solution:

Step 1: Recall from passage.

The passage clearly states that coconut belongs to the family **Arecaceae**.

Step 2: Eliminate incorrect options.

- Gramineae → Family of cereals like wheat, rice, maize.
- Leguminosae → Family of pulses.
- Anacardiaceae → Family of mango and cashew.

Step 3: Conclusion.

Thus, the family of coconut is Arecaceae.

Final Answer:

Family of Coconut = Arecaceae

Quick Tip

Remember: Coconut = Arecaceae, Mango = Anacardiaceae, Wheat = Gramineae, Gram = Leguminosae.

Q48. A product prepared from coconut fibrous husk used for planting of seedlings in nursery is -

1. Cocopeat
2. Mat
3. Liquid nutrient
4. Oil

Correct Answer: 1. Cocopeat

Solution:

Step 1: Recall coconut products.

Coconut husk is fibrous, and when processed, it yields cocopeat. Cocopeat is widely used in nurseries for seed germination and as a growing medium.

Step 2: Eliminate other options.

- Mat → Not related to nurseries.
- Liquid nutrient → Not derived directly from husk.
- Oil → Derived from copra (dried endosperm), not husk.

Step 3: Conclusion.

The correct answer is cocopeat.

Final Answer:

Cocopeat is obtained from coconut husk and used in nurseries.

Quick Tip

Cocopeat is highly water-retentive and eco-friendly, making it a substitute for soil in nurseries.

Q49. Immature coconut may be harvested for their coconut water known as -

1. Coprale
2. Mahale
3. Shahale
4. Kahale

Correct Answer: 3. Shahale

Solution:

Step 1: Recall from passage.

The passage mentions that immature coconuts are harvested for their liquid endosperm (coconut water) called **Shahale**.

Step 2: Eliminate incorrect options.

- Coprale → Incorrect spelling, not used.
- Mahale, Kahale → Not relevant terms.

Step 3: Conclusion.

The correct name is Shahale.

Final Answer:

Immature coconut water is called Shahale.

Quick Tip

In exams, remember: Coconut water = Shahale, Coconut flesh = Copra.

Q50. Coconut leaves are used for preparation of -

1. Brooms
2. Bedsheets
3. Shoes
4. Handkerchief

Correct Answer: 1. Brooms

Solution:

Step 1: Recall from passage.

The passage states that long pinnate coconut leaves are used as raw material for products such as brooms, chatai, etc.

Step 2: Eliminate incorrect options.

- Bedsheets → Made from cotton, not coconut leaves.
- Shoes → Made from leather or rubber.
- Handkerchief → Made from cloth.

Step 3: Conclusion.

Thus, coconut leaves are mainly used for making brooms.

Final Answer:

Coconut leaves are used to make brooms.

Quick Tip

Coconut tree is often called “Kalpavriksha” (tree of life) because almost every part has economic use.