



CBSE Class X Agriculture Set 4 (95)

Time Allowed :2 Hours	Maximum Marks :50	Total s :21
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General Instructions

Read the following instructions very carefully and strictly follow them:

1. This question paper consists of 21 questions in two Sections : Section A and Section B.
2. Section A has Objective type questions, whereas Section B contains Subjective type questions.
3. Out of the given $(5 + 16) = 21$ questions, a candidate has to answer $(5 + 10) = 15$ questions in the allotted (maximum) time of 2 hours.
4. All questions of a particular section must be attempted in the correct order.
5. Section A : Objective Type Questions (24 marks) :
 - (a) This section has 5 questions.
 - (b) There is no negative marking.
 - (c) Do as per the instructions given.
 - (d) Marks allotted are mentioned against each question/part.
6. Section B : Subjective Type Questions (26 marks) :
 - (a) This section has 16 questions.
 - (b) A candidate has to do 10 questions.
 - (c) Do as per the instructions given.
 - (d) Marks allotted are mentioned against each question/part.

Section A

1. Answer any 4 out of the given 6 questions on Employability Skills.

i. Suresh participated in a 100 m race and won a prize. He was happy with the appreciation of his friends and teachers. Which of the following is pointing to his motivation?

- (A) Internal motivation
- (B) External motivation
- (C) Intensive motivation
- (D) Extensive motivation

Correct Answer: (B) External motivation

Solution: Suresh's motivation is based on the appreciation and recognition he received from his friends and teachers. This indicates an external source of motivation. External motivation is driven by rewards, recognition, or praise from others, unlike internal motivation which comes from within, like personal satisfaction or achieving a goal.

Quick Tip

External motivation is characterized by rewards or praise from others. If the motivation comes from within, it's internal.

ii. Name the organization which formulated the Sustainable Development Goals (SDG).

- (A) United Nations
- (B) G-20
- (C) World Bank
- (D) FIFA

Correct Answer: (A) United Nations

Solution: The Sustainable Development Goals (SDGs) were adopted by the United Nations in 2015 as a universal call to action to end poverty, protect the planet, and ensure that all



people enjoy peace and prosperity by 2030.

Quick Tip

SDGs are linked to the United Nations and focus on global sustainable development by 2030. Remember this for related questions.

iii. The inability to communicate using a language is known as:

- (A) Physical barriers
- (B) Linguistic barriers
- (C) Interpersonal barriers
- (D) Organizational barriers

Correct Answer: (B) Linguistic barriers

Solution: Linguistic barriers occur when there is a lack of understanding or use of a common language, leading to difficulties in communication between individuals or groups. These barriers can be due to differences in language, dialect, or vocabulary.

Quick Tip

If communication issues arise due to language or dialect differences, it is a linguistic barrier.

iv. To reverse the last action, which shortcut key will you use on the computer?

- (A) Ctrl + Z
- (B) Ctrl + V
- (C) Ctrl + P
- (D) Ctrl + B

Correct Answer: (A) Ctrl + Z

Solution: The shortcut key 'Ctrl + Z' is used to undo the last action performed on a computer. This is a standard function across most applications and software. It helps in



correcting mistakes quickly and efficiently.

Quick Tip

Use 'Ctrl + Z' to quickly undo mistakes in most software. It is a universal undo shortcut.

v. **To earn profit is not an aim of entrepreneurship. (True or False)**

Correct Answer: False

Solution: While entrepreneurship often involves pursuing innovative ideas and solving problems, earning profit is a primary aim. Profits ensure the sustainability and growth of entrepreneurial ventures.

Quick Tip

Entrepreneurship combines innovation and profit-making; profits are vital for business sustainability.

vi. **To create a secure password, one should include:**

- (A) Special characters only
- (B) Numbers only
- (C) Small and Capital letters, special characters and numbers
- (D) Small letters only

Correct Answer: (C) Small and Capital letters, special characters and numbers

Solution: A secure password must be complex and unpredictable. It should include a mix of small and capital letters, numbers, and special characters. This combination makes it resistant to hacking attempts like brute force or dictionary attacks.

Quick Tip

Use at least 12 characters with letters, numbers, and symbols to make your password strong and secure.



2. Answer any 5 out of the given 6 questions

i. Which of the following crops requires 1000 – 1500 hours of winter chilling for breaking the bud dormancy?

- (A) Mango
- (B) Banana
- (C) Apple
- (D) Cashewnut

Correct Answer: (C) Apple

Solution: Apple trees require 1000–1500 hours of chilling during winter to break bud dormancy. This period of low temperature ensures the proper flowering and fruiting of apple trees in the subsequent season.

Quick Tip

Apple trees are temperate crops that need winter chilling for successful growth. Remember this for temperature-specific crops.

ii. Telephone, Head, Kniffin, and Bower are important training systems adopted in:

- (A) Grapes
- (B) Papaya
- (C) Mango
- (D) Banana

Correct Answer: (A) Grapes

Solution: These training systems—Telephone, Head, Kniffin, and Bower—are used for grapes to support the vines for better exposure to sunlight, air circulation, and fruit development.



Quick Tip

Grapes require support systems for growth. Remember these training systems for viticulture-related questions.

iii. Stamen is a part of

- (A) Fruit
- (B) Flower
- (C) Embryo
- (D) Egg

Correct Answer: (B) Flower

Solution: The stamen is the male reproductive part of a flower. It consists of the anther and filament and is responsible for producing pollen grains.

Quick Tip

The stamen is exclusive to flowers and is essential for pollination and reproduction.

iv. Which among the following is fed with Royal Jelly?

- (A) Worker bee
- (B) Queen bee
- (C) Lac insect
- (D) Drone bee

Correct Answer: (B) Queen bee

Solution: Royal jelly is a highly nutritious secretion produced by worker bees. It is fed to the queen bee throughout her life, which allows her to develop reproductive capabilities and grow larger than other bees. Worker bees and drones are not fed royal jelly after the larval stage.



Quick Tip

Royal jelly is exclusively fed to the queen bee to ensure her development and longevity.

v. Oilseed crop of India is:

- (A) Mustard
- (B) Bajra
- (C) Wheat
- (D) Maize

Correct Answer: (A) Mustard

Solution: Mustard is one of the major oilseed crops grown in India. It is used for producing edible oil and is a significant part of the agricultural economy. Other options like Bajra, Wheat, and Maize are not oilseeds; they are cereals.

Quick Tip

Remember that oilseed crops like mustard, groundnut, and sunflower are used for extracting oils, unlike cereals.

vi. Ghee contains

of milk fat.

- (A) 80%
- (B) 99.5%
- (C) 69.5%
- (D) 89.5%

Correct Answer: (A) 80%

Solution: Ghee, a clarified butter commonly used in Indian cuisine, typically contains around 80% milk fat. The remaining portion includes water and milk solids that are removed during the clarification process.



Quick Tip

Ghee is known for its high-fat content, usually around 80%, making it calorie-dense.

3. Answer any 5 out of the given 6 questions

i. Dashehari, Langra, Chausa are important varieties of:

- (A) Apple
- (B) Pomegranate
- (C) Chiku
- (D) Mango

Correct Answer: (D) Mango

Solution: Dashehari, Langra, and Chausa are popular mango varieties known for their sweetness and quality. These varieties are grown extensively in India and are part of the tropical fruit cultivation sector.

Quick Tip

Mango varieties like Dashehari, Langra, and Chausa are prominent in Indian horticulture.

ii. Most important critical stage of irrigation in wheat is:

- (A) CRI
- (B) Late tillering
- (C) Flowering
- (D) Seed maturity

Correct Answer: (A) CRI

Solution: CRI (Crown Root Initiation) is the most critical stage of irrigation for wheat. Adequate water supply at this stage ensures proper root development, which is vital for nutrient and water uptake.



Quick Tip

For wheat, remember CRI (Crown Root Initiation) is the most critical stage for irrigation.

iii. Paneer is obtained from

- (A) Shrikhand
- (B) Curd
- (C) Milk
- (D) Khoa

Correct Answer: (C) Milk

Solution: Paneer is a fresh cheese prepared by curdling milk using an acid like lemon juice or vinegar. It is commonly used in Indian cuisine for a variety of dishes.

Quick Tip

Paneer is directly made from milk by adding an acidic agent.

iv. Energy deficiency can cause:

- (A) Fat deposition
- (B) Loss of weight
- (C) Calcium deposition
- (D) Hormonal development

Correct Answer: (B) Loss of weight

Solution: Energy deficiency, caused by inadequate caloric intake, leads to loss of body weight and muscle mass. This happens when the body starts using fat and muscle for energy.

Quick Tip

Energy deficiency leads to weight loss, as the body uses stored fat and muscle for fuel.



v. **Genetic purity is highest in:**

- (A) Certified seed
- (B) Foundation seed
- (C) Breeder seed
- (D) Registered seed

Correct Answer: (C) Breeder seed

Solution: Breeder seed is the genetically pure seed produced by breeders. It is used to maintain genetic integrity and is the source for producing foundation and certified seeds.

Quick Tip

Breeder seed is the purest form of seed with high genetic integrity.

vi. **Most important component of Jelly is:**

- (A) Pectin
- (B) Aroma
- (C) Salt
- (D) Water

Correct Answer: (A) Pectin

Solution: Pectin is a natural polysaccharide present in fruits that helps in gel formation, which is essential for making jelly. It provides the desired texture and consistency.

Quick Tip

Pectin is the key ingredient in jelly-making as it forms the gel structure.

4. Answer any 5 out of the given 6 questions



i. Important variety of potato is:

- (A) Pusa Rohini
- (B) Pride of India
- (C) Kufri Deva
- (D) Parbhani Kranti

Correct Answer: (C) Kufri Deva

Solution: Kufri Deva is a widely known variety of potato cultivated in India. It is popular for its high yield and quality, making it an important choice for potato farming. Other options are not well-known potato varieties.

Quick Tip

Remember "Kufri" prefix is commonly associated with Indian potato varieties.

ii. After manufacture of ice cream, it is stored at _____ temperature.

- (A) $-5^{\circ}C$
- (B) $0^{\circ}C$
- (C) $-25^{\circ}C$
- (D) Room temperature

Correct Answer: (C) $-25^{\circ}C$

Solution: Ice cream is stored at $-25^{\circ}C$ to maintain its texture and prevent melting. Storing it at this low temperature ensures preservation of its quality and shelf life.

Quick Tip

Ice cream is always stored below freezing temperatures, commonly at $-25^{\circ}C$.

iii. Good quality seeds of improved varieties can increase the yield of a crop by about:

- (A) 10–15%



- (B) 20–25%
- (C) 30–35%
- (D) 5–10%

Correct Answer: (B) 20–25%

Solution: Using good quality seeds of improved varieties significantly enhances crop yield by ensuring better germination, resistance to pests, and tolerance to environmental conditions. On average, such seeds improve yield by 20–25%.

Quick Tip

Improved seed varieties generally lead to a 20–25% increase in crop productivity.

iv. Ruminants can synthesize the following vitamin in their rumen:

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

Correct Answer: (B) Vitamin B

Solution: Ruminants have microorganisms in their rumen that synthesize Vitamin B complex. This symbiotic relationship allows ruminants to meet their Vitamin B requirements naturally.

Quick Tip

Ruminants produce Vitamin B in their rumen through microbial activity.

v. During HTST pasteurization method, the temperature and holding time is _____ and _____ respectively.

- (A) 71.6°C, 15 sec



- (B) 62.7°C , 30 min
- (C) 135°C , 1 sec
- (D) 100°C , 60 min

Correct Answer: (A) 71.6°C , 15 sec

Solution: HTST (High Temperature Short Time) pasteurization heats milk to 71.6°C for 15 seconds. This method effectively kills pathogens while retaining nutritional and sensory qualities.

Quick Tip

HTST pasteurization operates at 71.6°C for 15 seconds, balancing safety and quality.

vi. In Hindi, Chickpea is popularly known as:

- (A) Urd
- (B) Moong
- (C) Chana
- (D) Matar

Correct Answer: (C) Chana

Solution: Chickpea, commonly known as "Chana" in Hindi, is a widely consumed legume in India. It is used in various culinary dishes and is a staple source of protein.

Quick Tip

Chickpea = "Chana" in Hindi, widely used in Indian cuisine and rich in protein.

5. Answer any 5 out of the given 6 questions

i. In all meat products, which body part has the highest fat content?

- (A) Ear



- (B) Brain
- (C) Pork tail
- (D) Head

Correct Answer: (B) Brain

Solution: Among meat products, the brain has the highest fat content due to the high concentration of lipids, particularly essential fatty acids and cholesterol, which are vital for brain function.

Quick Tip

Brain tissues are rich in lipids, making them the highest fat-containing meat product.

ii. Adsali and Eksali crop is related to:

- (A) Pea
- (B) Sugarcane
- (C) Cotton
- (D) Tea

Correct Answer: (B) Sugarcane

Solution: Adsali and Eksali refer to specific types of sugarcane crops grown in different seasons in India. Adsali is a long-duration crop, while Eksali is a medium-duration crop. These practices help maximize yield and production in sugarcane farming.

Quick Tip

Adsali and Eksali cropping methods are unique to sugarcane farming in India.

iii. In full cream milk, fat should not be less than

- (A) 3%
- (B) 4%



(C) 5%

(D) 6%

Correct Answer: (D) 6%

Solution: Full cream milk must have a minimum of 6% fat content to meet quality standards. This high fat content gives full cream milk its rich texture and flavor.

Quick Tip

Full cream milk has a fat content of at least 6%, making it suitable for dairy-based products.

iv. In which of the following places in India was modern beekeeping first introduced?

(A) Delhi

(B) Mizoram

(C) Bengal

(D) Ladakh

Correct Answer: (C) Bengal

Solution: Modern beekeeping was first introduced in Bengal during the colonial era. The scientific approach to apiculture began here and later spread to other parts of India.

Quick Tip

Modern beekeeping in India has its origins in Bengal during British rule.

v. Main rabi cereal crop in India is:

(A) Wheat

(B) Maize

(C) Paddy

(D) Bajra

Correct Answer: (A) Wheat

Solution: Wheat is the main rabi cereal crop in India. It is grown during the winter season and harvested in the spring. It thrives in cool temperatures and is a staple food grain.

Quick Tip

Wheat is India's primary rabi cereal crop, grown in winter and harvested in spring.

vi. Cheese is classified as soft, semi-hard, and hard cheese on the basis of the following:

- (A) Nutrient content
- (B) Moisture content
- (C) Fat content
- (D) Sugar content

Correct Answer: (B) Moisture content

Solution: Cheese is classified based on its moisture content. Soft cheese has high moisture, while semi-hard and hard cheese have progressively lower moisture levels, affecting their texture and shelf life.

Quick Tip

Cheese classification depends on moisture content, influencing its texture and hardness.

Section B

Answer any 3 out of the given 5 questions on Employability Skills. Answer each question in 20 30 words each.

6. Explain sustainable development.

Answer: Sustainable development is a concept that focuses on meeting the needs of the present generation without compromising the ability of future generations to meet their own



needs. It incorporates three key aspects: 1. Economic growth: Ensuring long-term economic stability and growth while maintaining the efficient use of resources.

2. Environmental protection: Preserving biodiversity, ecosystems, and reducing pollution to maintain a healthy planet.

3. Social equity: Addressing social inequalities, providing equal opportunities, and ensuring access to basic services such as education and healthcare.

Sustainable development aims to strike a balance between economic progress, environmental sustainability, and social well-being to ensure a harmonious coexistence for all.

Quick Tip

Remember the three pillars of sustainable development—economic, social, and environmental—for detailed answers.

7. List any two qualities of a successful entrepreneur.

Answer: 1. Creativity and Innovation: Successful entrepreneurs think outside the box and come up with innovative solutions to problems. This ability helps them to stay ahead of competitors and create unique products or services.

2. Risk-taking ability: Entrepreneurs are willing to take calculated risks. They invest time, money, and resources to pursue their ideas, despite uncertainties, and are prepared to learn from failures.

These qualities are essential because they enable entrepreneurs to adapt to challenges, seize new opportunities, and build sustainable businesses.

Quick Tip

Creativity and risk-taking are two fundamental traits every entrepreneur must possess.

8. What are computer viruses? Name any one major virus of a computer.

Answer: A computer virus is a type of malicious software designed to disrupt or damage a computer system by replicating itself. Viruses can spread through email attachments,



infected files, or websites and can compromise system performance, delete important files, or steal sensitive data.

Example: The Trojan Horse virus is one of the most well-known types of computer virus. It disguises itself as legitimate software, tricking users into installing it, and then proceeds to harm the system.

To prevent computer viruses, users should install antivirus software, avoid downloading files from untrusted sources, and regularly update their systems.

Quick Tip

”Trojan Horse” is a key example of a virus that spreads by disguising itself as safe software.

9. What is feedback? Why is it an important part of communication?

Answer: Feedback refers to the response given by the receiver of a message to the sender. It is a critical component of the communication process as it ensures that the message has been understood as intended.

Importance:

1. Clarity: Feedback helps clarify any doubts or misunderstandings, making the communication process more effective.
2. Improvement: It allows the sender to refine their message or approach based on the receiver’s response.
3. Encouragement: Positive feedback boosts the sender’s confidence and encourages better communication.

In summary, feedback is a two-way process that facilitates better understanding and enhances the overall effectiveness of communication.

Quick Tip

Feedback ensures clarity, improvement, and encouragement in communication.



10. Write three steps to identify and manage stress.

Answer: 1. Identify the sources of stress: Determine the primary causes of stress, such as work deadlines, personal conflicts, or health issues. Understanding these triggers is the first step to managing stress effectively.

2. Adopt stress-management techniques: Practice relaxation methods such as deep breathing, meditation, or yoga to calm the mind and body. Engaging in regular exercise also helps reduce stress levels.

3. Time management: Plan tasks and prioritize them effectively to avoid last-minute pressure. Delegating responsibilities and maintaining a balanced lifestyle can significantly reduce stress.

By following these steps, individuals can manage stress and maintain better mental and physical health.

Quick Tip

Manage stress by identifying its causes, adopting relaxation techniques, and prioritizing tasks.

Answer any 4 out of the given 6 questions in 20 30 words each.

11. Write four important varieties of apple.

Answer: 1. Red Delicious: Known for its sweet taste and deep red color.

2. Golden Delicious: A yellow variety famous for its mild sweetness.

3. Fuji: Originating from Japan, it is known for its crisp texture and juiciness.

4. Gala: A popular variety with a balanced sweet and tart flavor.

These varieties are widely cultivated for their unique flavors and high commercial value.

Quick Tip

Red Delicious and Golden Delicious are among the most well-known apple varieties.



12. Name four value-added products obtained from fruits.

- Answer:** 1. Jam: A thick spread made by cooking fruit with sugar.
2. Jelly: A clear, firm product made from fruit juice and sugar.
3. Squash: A concentrated fruit drink made by mixing fruit juice, sugar, and preservatives.
4. Fruit candies: Chewy or hard candies made using fruit extracts.

Value-added products increase the shelf life of fruits and enhance their market value.

Quick Tip

Jam and Jelly are key examples of value-added fruit products.

13. Name four important species of genus Saccharum.

- Answer:** 1. Saccharum officinarum: Known as the noble cane, this species is cultivated for its high sugar content.
2. Saccharum spontaneum: A wild species used for breeding and improving sugarcane varieties due to its disease resistance.
3. Saccharum barberi: Found in northern India, it is known for its tolerance to adverse conditions.
4. Saccharum sinense: Commonly cultivated in China, it has moderate sugar content and good adaptability.

These species play a vital role in sugarcane production and breeding programs.

Quick Tip

Saccharum officinarum is the most commercially important species for sugar production.

14. Write propagation method of the following crops:

- (a) Grapes
- (b) Apple
- (c) Brinjal



(d) Sugarcane

Answer: (a) Grapes: Propagated through cuttings, where healthy vine segments are planted to develop new plants.

(b) Apple: Propagated through grafting, combining a rootstock and scion for improved yield and disease resistance.

(c) Brinjal: Propagated through seeds, which are sown directly or in nurseries for transplanting.

(d) Sugarcane: Propagated through stem cuttings, where mature cane segments with nodes are planted to grow new plants.

Quick Tip

Grapes and sugarcane are propagated vegetatively (cuttings), while apple uses grafting.

15. Write the seed rate of the following crops grown under normal conditions:

(a) Wheat

(b) Mustard

Answer: (a) Wheat: The recommended seed rate is 100–125 kg per hectare under normal conditions, depending on the variety and planting method.

(b) Mustard: The recommended seed rate is 4–5 kg per hectare, as mustard requires lower seed density for proper spacing.

These seed rates ensure optimal plant population and maximum yield.

Quick Tip

Wheat requires a higher seed rate (100–125 kg/ha) compared to mustard (4–5 kg/ha).

16. Write the name of any four fruits belonging to the citrus group.

Answer: 1. Orange: A widely consumed citrus fruit known for its sweet and tangy flavor.

2. Lemon: Popular for its sour taste, used in beverages and cooking.



3. Grapefruit: A larger citrus fruit with a bittersweet taste, rich in nutrients.

4. Lime: A small, sour citrus fruit often used in drinks and culinary dishes.

Citrus fruits are rich in vitamin C and antioxidants, making them essential for a healthy diet.

Quick Tip

Citrus fruits include orange, lemon, grapefruit, and lime, known for their vitamin C content.

Answer any 3 out of the given 5 questions in 50 80 words each.

17. Describe the composition of various classes and types of milk sold in India.

Answer: In India, milk is classified based on its fat and SNF (solid-not-fat) content:

1. Full Cream Milk: Contains a minimum of 6% fat and 9% SNF, offering a rich texture and taste.

2. Toned Milk: Contains 3% fat and 8.5% SNF, suitable for health-conscious individuals.

3. Double Toned Milk: Contains 1.5% fat and 9% SNF, preferred for low-fat diets.

4. Skimmed Milk: Contains less than 0.5% fat, ideal for calorie-conscious individuals.

These categories cater to diverse dietary preferences while meeting nutritional needs.

Quick Tip

Full cream milk has the highest fat content, while skimmed milk has almost no fat.

18. Describe Ranikhet disease on the following heads:

(a) Disease-causing organism

(b) Commonly found in which animal

(c) One symptom

(d) One control measure

Answer: (a) Disease-causing organism: Ranikhet disease is caused by the Newcastle Disease Virus (NDV).



(b) Commonly found in: It affects poultry birds such as chickens, ducks, and turkeys.

(c) One symptom: Birds infected with Ranikhet disease show respiratory distress, coughing, and sneezing. Neurological symptoms like twisted necks may also occur.

(d) One control measure: Vaccination is the most effective measure to prevent Ranikhet disease in poultry. Proper sanitation and biosecurity measures should also be maintained.

Quick Tip

Ranikhet disease is a viral poultry disease controlled through vaccination.

19. List the benefits of biogas in rural India.

Answer: Biogas offers multiple benefits for rural India:

1. Clean cooking fuel: Reduces dependency on firewood, minimizing indoor pollution.
2. Energy source: Provides electricity and fuel for small-scale applications.
3. Waste management: Utilizes agricultural and animal waste, reducing environmental pollution.
4. Bio-fertilizer: The slurry left after biogas production is an excellent organic fertilizer.
5. Cost-effective: Reduces energy costs and promotes self-reliance.

Biogas is a sustainable solution for energy and waste management in rural areas.

Quick Tip

Biogas provides clean fuel, waste management, and bio-fertilizer benefits in rural India.

20. Differentiate between Seed and Grain.

Answer: 1. Seed: A seed is a matured ovule containing an embryo, used for planting and producing new plants. It is specifically processed and treated for sowing purposes.

2. Grain: A grain is the harvested product of cereal crops, used primarily for consumption or trade. It is not treated or processed for planting.

Key Difference: Seeds are selected for reproduction, while grains are for consumption.



Quick Tip

Seed is for planting; grain is for eating or trade.

21. What is pollination? Differentiate between self-pollination and cross-pollination.

Answer: Pollination is the process of transferring pollen grains from the anther (male part) to the stigma (female part) of a flower for fertilization.

1. Self-pollination: The transfer of pollen occurs within the same flower or between flowers of the same plant. It requires less effort but results in less genetic diversity.
2. Cross-pollination: The transfer of pollen occurs between flowers of different plants of the same species. It promotes genetic diversity and results in healthier plants.

Key Difference: Self-pollination involves the same plant, while cross-pollination requires different plants.

Quick Tip

Self-pollination is within one plant; cross-pollination involves different plants for better diversity.

