

<p style="text-align: center;"><b>Marking Scheme</b>  <b>Strictly Confidential</b>  <b>(For Internal and Restricted use only)</b>  <b>Secondary School Examination, 2026 (X<sup>th</sup>)</b>  <b>SUBJECT NAME : AGRICULTURE (Q.P. CODE /Set No: 95/4)</b></p>	
<b><u>General Instructions: -</u></b>	
<b>1</b>	You are aware that evaluation is the most important process in the actual and correct assessment of the candidates. A small mistake in evaluation may lead to serious problems which may affect the future of the candidates, education system and teaching profession. To avoid mistakes, it is requested that before starting evaluation, you must read and understand the spot evaluation guidelines carefully.
<b>2</b>	<b>“Evaluation policy is a confidential policy as it is related to the confidentiality of the examinations conducted, evaluation done and several other aspects. Its leakage to public in any manner could lead to derailment of the examination system and affect the life and future of millions of candidates. Sharing this policy/document to anyone, publishing in any magazine and printing in Newspaper/Website, etc. may invite action under various rules of the Board and IPC.”</b>
<b>3</b>	Evaluation is to be done as per instructions provided in the Marking Scheme. It should not be done according to one's own interpretation or any other consideration. Marking Scheme should be strictly adhered to and religiously followed. <b>However, while evaluating, answers which are based on latest information or knowledge and/or are innovative, they may be assessed for their correctness otherwise and due marks be awarded to them. In Class-X, while evaluating two competency-based questions, please try to understand given answer and even if reply is not from marking scheme but correct competency is enumerated by the candidate, due marks should be awarded.</b>
<b>4</b>	The Marking scheme carries only suggested value points for the answers. These are in the nature of Guidelines only and do not constitute the complete answer. The students can have their own expression and if the expression is correct, the due marks should be awarded accordingly.
<b>5</b>	The Head-Examiner must go through the first five answer books evaluated by each evaluator on the first day, to ensure that evaluation has been carried out as per the instructions given in the Marking Scheme. If there is any variation, the same should be zero after deliberation and discussion. The remaining answer books meant for evaluation shall be given only after ensuring that there is no significant variation in the marking of individual evaluators.
<b>6</b>	Evaluators will mark( ✓ ) wherever answer is correct. For wrong answer CROSS 'X' be marked. Evaluators will not put right (✓)while evaluating which gives an impression that answer is correct and no marks are awarded. <b>This is most common mistake which evaluators are committing.</b>
<b>7</b>	If a question has parts, please award marks on the right-hand side for each part. Marks awarded for different parts of the question should then be totaled up and written in the left-hand margin and encircled. This may be followed strictly.
<b>8</b>	If a question does not have any parts, marks must be awarded in the left-hand margin and encircled. This may also be followed strictly.
<b>9</b>	If a student has attempted an extra question, answer of the question deserving more marks should be retained and the other answer scored out with a note <b>“Extra Question”</b> .

10	No marks to be deducted for the cumulative effect of an error. It should be penalized only once.
11	A full scale of marks 50 (as given in Question Paper) has to be used. Please do not hesitate to award full marks if the answer deserves it.
12	Every examiner has to necessarily do evaluation work for full working hours i.e., 8 hours every day and evaluate 20 answer books per day in main subjects and 25 answer books per day in other subjects (Details are given in Spot Guidelines). This is in view of the reduced syllabus and number of questions in question paper.
13	<p>Ensure that you do not make the following common types of errors committed by the Examiner in the past:-</p> <ul style="list-style-type: none"> <li>• Leaving answer or part thereof unassessed in an answer book.</li> <li>• Giving more marks for an answer than assigned to it.</li> <li>• Wrong totaling of marks awarded on an answer.</li> <li>• Wrong transfer of marks from the inside pages of the answer book to the title page.</li> <li>• Wrong question wise totaling on the title page.</li> <li>• Wrong totaling of marks of the two columns on the title page.</li> <li>• Wrong grand total.</li> <li>• Marks in words and figures not tallying/not same.</li> <li>• Wrong transfer of marks from the answer book to online award list.</li> <li>• Answers marked as correct, but marks not awarded. (Ensure that the right tick mark is correctly and clearly indicated. It should merely be a line. Same is with the X for incorrect answer.)</li> <li>• Half or a part of answer marked correct and the rest as wrong, but no marks awarded.</li> </ul>
14	While evaluating the answer books if the answer is found to be totally incorrect, it should be marked as cross (X) and awarded zero (0) Marks.
15	Any unassessed portion, non-carrying over of marks to the title page, or totaling error detected by the candidate shall damage the prestige of all the personnel engaged in the evaluation work as also of the Board. Hence, in order to uphold the prestige of all concerned, it is again reiterated that the instructions be followed meticulously and judiciously.
16	The Examiners should acquaint themselves with the guidelines given in the <b>“Guidelines for Spot Evaluation”</b> before starting the actual evaluation.
17	Every Examiner shall also ensure that all the answers are evaluated, marks carried over to the title page, correctly totaled and written in figures and words.
18	The candidates are entitled to obtain photocopy of the Answer Book on request on payment of the prescribed processing fee. All Examiners/Additional Head Examiners/Head Examiners are once again reminded that they must ensure that evaluation is carried out strictly as per value points for each answer as given in the Marking Scheme.

**Series: MNL2K**

**Set- 4**  
**Q P Code: 95 (M950408)**

**Secondary School Certificate Examination-2026**  
**Marking Scheme – AGRICULTURE (408)**

**Max. Time: 2 Hours**

**Max. Marks: 50**

<b>EXPECTED ANSWERS/VALUE POINTS</b>			
<b>SECTION A</b>			
<b>(Objective Type Questions)</b>			
<b>Q. 1</b>	<b>Answer any 4 out of the given 6 questions on Employability Skills (4 x 1 = 4 marks)</b>		
	<b>i.</b>	(A) Specific feedback	<b>1</b>
	<b>ii.</b>	(B) Realistic	<b>1</b>
	<b>iii.</b>	(B) Ability	<b>1</b>
	<b>iv.</b>	(D) Check for expiry of antivirus software and renew	<b>1</b>
	<b>v.</b>	(D) Fostering innovation and economic growth	<b>1</b>
	<b>vi.</b>	(D) Space Research	<b>1</b>
<b>Q. 2</b>	<b>Answer any 5 out of the given 6 questions (5 x 1 = 5 marks)</b>		
	<b>i.</b>	(B) Himachal Pradesh and Jammu-Kashmir	<b>1</b>
	<b>ii.</b>	(D) January-February	<b>1</b>
	<b>iii.</b>	(D) Cell wall	<b>1</b>
	<b>iv.</b>	(C) Anardana	<b>1</b>
	<b>v.</b>	(A) French marigold	<b>1</b>
	<b>vi.</b>	(B) Vitamin A, D, E and K	<b>1</b>
<b>Q.3</b>	<b>Answer any 5 out of the given 6 questions (5 x 1 = 5 marks)</b>		
	<b>i.</b>	(B) Cream	<b>1</b>
	<b>ii.</b>	(A) Wheat	<b>1</b>

	iii.	(C) Homogenisation	1
	iv.	(B) India	1
	v.	(A) Egg laying	1
	vi.	(B) Viability of embryo	1

<b>Q.4</b>	<b>Answer any 5 out of the given 6 questions (5 x 1 = 5 marks)</b>		
	i.	(B) Low milk production	1
	ii.	(B) Blue	1
	iii.	(C) Khoa	1
	iv.	(C) Black soil	1
	v.	(B) Danedar	1
	vi.	(C) Wheat	1

<b>Q.5</b>	<b>Answer any 5 out of the given 6 questions (5 x 1 = 5 marks)</b>		
	i.	(D) Calcium	1
	ii.	(A) Cotton	1
	iii.	(D) 60 x 20 cm	1
	iv.	(A) Maintain genetic identity and purity	1
	v.	(C) Cheddar and Cheshire cheese	1
	vi.	(B) Heating	1

## **SECTION - B**

### **(Subjective Type Questions)**

**Answer any 3 out of the given 5 questions on Employability Skills (3 x 2 = 6 marks)**

**Answer each question in 20 – 30 words.**

<b>Q. 6</b>	<p>Clear and concise communication is very important in the work and business environment because (Any TWO)</p> <ul style="list-style-type: none"> <li>➤ It ensures that messages are understood correctly.</li> <li>➤ It reduces misunderstandings, confusion, and errors in tasks.</li> <li>➤ When instructions and information are clear, employees can perform their duties efficiently, saving time and resources.</li> <li>➤ It also improves coordination and teamwork among staff members.</li> <li>➤ Clear communication helps managers make better decisions based on accurate information.</li> </ul>	<b>2</b>
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	➤ Furthermore, it builds trust, professionalism, and strong relationships with clients and colleagues. <b>(Any other relevant point)</b>	
<b>Q. 7</b>	Skills that must be mastered to succeed in life (Any FOUR)  (i). Self-awareness (ii). Responsibility (iii). Time Management (iv). Adaptability (v). Critical Thinking (vi). Communication Skills (vii). Problem-Solving Skills (viii). Financial Literacy (ix). Continuous Learning (x). <b>(Any other relevant point)</b>	<b>4 x ½ = 2</b>
<b>Q. 8</b>	Various actions that can be performed on a computer screen using a mouse are <b>(Any TWO)</b> :  1. <b>Pointing</b> – Moving the cursor to select an item. 2. <b>Clicking</b> – Pressing and releasing the left mouse button once to select an item. 3. <b>Double-clicking</b> – Pressing the left mouse button twice quickly to open files or programs. 4. <b>Right-clicking</b> – Pressing the right mouse button to open a shortcut menu. 5. <b>Dragging</b> – Holding down the mouse button while moving the mouse to move items. 6. <b>Dropping</b> – Releasing the mouse button after dragging an item. 7. <b>Scrolling</b> – Rolling the scroll wheel to move up or down a page.	<b>1+ 2 x ½ = 2</b>
<b>Q. 9</b>	(a) A career is a line of work that a person takes for life <b>OR</b> A career is a ongoing long term professional growth built around a person work skills, education and experience.  (b) Two ways by which a person can earn a living are: (i) Self employment (ii) Wage employment	<b>1+ 2 x ½ = 2</b>

<b>Q. 10</b>	<p>To reduce inequalities we can : <b>(Atleast two ways)</b></p> <ul style="list-style-type: none"> <li>(i). Be helpful to one another</li> <li>(ii). Be friendly with everyone</li> <li>(iii). Include everyone while working or playing.</li> <li>(iv). Help others by including everyone whether they are small or big, boy or girl; belong to any class or caste.</li> <li>(v). Progressive taxation</li> <li>(vi). Equitable resource distribution</li> </ul>	<b>2</b>
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**Answer any 4 out of the given 6 questions in 20 – 30 words each (4 x 2 = 8 marks)**

Q. 11	<p>Evaluators to note that the Whiptail in cauliflower is a physiological disorder and not a disease as it is caused by a nutritional deficiency, not by a pathogen (fungal/bacterial/viral).</p> <p>Whiptail is a physiological disorder in crop cauliflower, caused due to molybdenum deficiency in soil.</p> <p>It can be prevented by</p> <ul style="list-style-type: none"><li>– Applying molybdenum fertilizers such as sodium molybdate or ammonium molybdate.</li><li>– Correcting soil pH (acidic soils) by applying lime to raise soil pH (since Mo becomes less available in low pH soils).</li><li>– Seed treatment or foliar spray with molybdate solution.</li></ul>	2												
Q. 12	<p>a) Fruit processing is important in India because it reduces post-harvest losses, increases shelf life, adds value to fruits, ensures better prices for farmers, creates employment, and supports the food industry.</p> <p>b) <u>Value-added products from fruits are (Any TWO):</u></p> <table><tr><td>i. Jam</td><td>vii. Pickle</td></tr><tr><td>ii. Jelly</td><td>viii. Marmalade</td></tr><tr><td>iii. Squash</td><td>ix. Fruit bar</td></tr><tr><td>iv. Juice</td><td>x. Dried fruits</td></tr><tr><td>v. Nectar</td><td>xi. Morabba</td></tr><tr><td>vi. Candy</td><td></td></tr></table>	i. Jam	vii. Pickle	ii. Jelly	viii. Marmalade	iii. Squash	ix. Fruit bar	iv. Juice	x. Dried fruits	v. Nectar	xi. Morabba	vi. Candy		1+1=2
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Q. 13	<p><b>Scientific name:</b> <i>Zea mays</i> L.</p> <p><b>Types of maize:</b> Normal yellow/white grain, Sweet corn, Baby corn, Popcorn, Quality Protein Maize (QPM), Waxy corn, High amylase corn, High oil corn, Fodder maize. <b>(Any Two)</b></p>	1+ 2 x ½ = 2
Q. 14	<p><b>Soil Requirement for Coconut Cultivation:</b> Coconut requires well drained light soil permitting free root development and aeration. It grows best on coastal alluvial and sandy soils with an optimum pH ranging from 5.2 to 8.0.</p> <p><b>Climatic Requirement for Coconut Cultivation:</b> Coconuts require a <b>tropical climate</b> with <b>high temperature (27–32°C)</b> and a well distributed rainfall of 1270-2500 mm per annum is ideal for coconut cultivation.</p>	1+1 = 2
Q. 15	<p><b>Pulse crops</b> are leguminous crops that are grown mainly for their edible seeds, which are rich in protein. Examples include chickpea, lentil, pigeon pea, mung bean, etc.</p> <p><b>Significance in Indian Agriculture (ANY TWO POINTS)</b></p> <ol style="list-style-type: none"> <li><b>Source of Protein:</b> for predominantly vegetarian Indian diet.</li> <li><b>Soil Fertility:</b> Fix atmospheric nitrogen in the soil, improving soil fertility.</li> <li><b>Crop Rotation:</b> They are used in crop rotation systems to maintain soil health and reduce pests.</li> <li><b>Economic Importance:</b> Pulses provide good income to farmers and contribute to India's GDP..</li> <li><b>Food Security:</b> They contribute to food and nutritional security in India.</li> </ol>	1+ 2 x ½ = 2
Q. 16	<p><b>Two important varieties of</b></p> <p>a) <b>Mango (ANY ONE):</b></p> <ul style="list-style-type: none"> <li>– Dashehari, Langra, Chausa and Bombay Green in north India,</li> <li>– Banganpalli/Baneshan, Neelum, Totapuri in south India,</li> <li>– Alphonso and Kesar in west India</li> <li>– Langra, Himsagar etc. in the east India.</li> <li>– Bapakai, Vellary, Chandrakaran, Kurrukan, Goa, Olour, Carabao, Paho, Peach, Apricot, Strawberry, etc.</li> </ul> <p>b) <b>Apple (ANY ONE):</b></p> <ul style="list-style-type: none"> <li>– <b>Early season:</b> Red June, Tydeman's Early Worcester, Kings Pippin, Summer Queen</li> </ul>	1+1=2

	<ul style="list-style-type: none"> <li>– <b>Mid season:</b> Starking Delicious, Red Delicious, Richared, Black Ben Davis, Red Gold, McIntosh, Golden Delicious, Lord Lambourne</li> <li>– <b>Late season:</b> Granny Smith, Ruspippin Yellow, Winter Banana</li> </ul>	
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Answer any 3 out of the given 5 questions in 50– 80 words each (3 x 4 = 12 marks)

Q. 17	<p><b>(a) What is milk powder?</b></p> <p><b>Answer:</b> Milk powder is dehydrated milk in which almost all the water has been removed. It can be stored for a long period and reconstituted by adding water.</p> <p><b>b) Two methods of preparing milk powder:</b></p> <ol style="list-style-type: none"> <li><b>Spray drying</b> – Milk is sprayed into hot air, and water quickly evaporates.</li> <li><b>Drum drying</b> – Milk is spread over a heated drum, and water evaporates.</li> </ol> <p><u>Spray drying results in better quality milk powder than drum drying.</u></p> <p><b>c) Benefits of milk powder (Any TWO):</b></p> <ol style="list-style-type: none"> <li>Long shelf life and easy storage.</li> <li>Can be transported easily and reconstituted into liquid milk whenever needed.</li> <li>Convenient use for areas with no refrigeration</li> <li>Storage convenience</li> <li>Being lightweight and non-perishable, it can be transported over long distances without refrigeration.</li> </ol>	1+2+1= 4
Q. 18	<p><b>a) Pathogens responsible for livestock diseases:</b></p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Bacteria</li> <li><input type="checkbox"/> Viruses</li> <li><input type="checkbox"/> Fungi</li> <li><input type="checkbox"/> Parasites</li> <li><input type="checkbox"/> <b>OR</b> scientific names of causal organisms (e.g. <i>Bacillus anthracis</i>, etc.)</li> </ul> <p><b>b) Influence of farm management and environment on disease spread:</b></p> <ul style="list-style-type: none"> <li><input type="checkbox"/> <b>Improper farm management</b> like poor hygiene, overcrowding, and lack of vaccination increases the risk of infection.</li> <li><input type="checkbox"/> <b>Unsanitary surroundings</b> and contaminated water or feed allow pathogens to spread quickly among animals.</li> </ul>	1+2+1= 4



	<p>☐ <b>Stressful conditions</b> weaken immunity, making animals more susceptible to diseases.</p> <p><b>c) Poultry disease (Any ONE):</b></p> <ol style="list-style-type: none"> <li>Newcastle disease /Ranikhet</li> <li>Avian influenza (Bird flu)</li> <li>Fowl pox</li> <li>Coccidiosis</li> <li>Marek's disease</li> <li>Salmonellosis</li> </ol>	
<b>Q. 19</b>	<p><b>What is seed?</b> In broad sense, seed is a material, which is used for planting or regeneration purpose. However, scientifically, seed is a fertilized matured ovule, consisting of an embryonic plant, a store of food and a protective seed coat. Thus, seed is the most vital and crucial input for crop production.</p> <p><b>Importance of Quality Seeds for Agricultural Productivity in India (Any THREE points):</b></p> <ol style="list-style-type: none"> <li><b>High Yield:</b> Quality seeds have better germination and it is estimated that good quality seeds of improved varieties can contribute about 20-25% increase in yield.</li> <li><b>Disease Resistance:</b> They are often resistant to pests and diseases, reducing crop losses.</li> <li><b>Uniformity:</b> Quality seeds ensure uniform growth, which helps in efficient harvesting and better crop management.</li> <li><b>Adaptability:</b> They are suited to specific agro-climatic conditions, improving crop survival and productivity.</li> <li><b>Optimum utilization of other agriculture inputs:</b> Response of other inputs in crop production depends on seed material used.</li> <li><b>Economic Benefit:</b> Using good seeds increases farmers' income by providing better-quality produce.</li> </ol>	<b>1+3= 4</b>
<b>Q. 20</b>	<p>Coffee production practices :</p> <p><b>(a) Training :</b> Trained either on single stem (Arabica, Robusta) or on multiple stem. When the plants reach desired height, topped (<i>Arabica</i> – 75cm, <i>Robusta</i> 105-120 cm)</p> <p><b>Pruning :</b> Centering and Desuckering are to be carried out for about 5 – 6 years or remove diseases branches/shoots timely..</p> <p><b>(b) Fruit Ripening :</b> Spraying etheplon (Ethrel) on mature berries when 10% natural ripening is observed. The following concentrations are standardized for</p>	<b>2+2 = 4</b>

	<p><i>Arabica</i> and <i>Robusta</i> plants.</p> <p><i>Arabica</i> : 100 to 120 ml per 200 lit of water/ 400 plant.</p> <p><i>Robusta</i> : 40 to 54 ml per 200 lit of water/ 267 plants.</p>	
<b>Q. 21</b>	<p>Citrus physiological disorder :</p> <p><b>(i) Granulation:</b> Juice sac because tough enlarged colourless and tasteless. This is due to marked increase in the pectic substances, gel etc. and marked decline in sugars, organic acids and carotenoids. The associated factors are – high soil humidity. High relative humidity and temperature during fruit growth.</p> <p><b>Control measure</b> : Application of 16 ppm of 2, 4 - D on developing fruits</p> <p style="text-align: center;">OR</p> <p>Spray of <math>\text{ZnSO}_4</math> + <math>\text{CuSO}_4</math> + KCl each at 0.25% at monthly interval from August to October.</p> <p><b>(ii) Fruit cracking:</b> Common in sweet orange and lime. Splitting starts at styler end and progresses towards the pedicel end. Splitting is basically caused due to factors like deficit soil moisture, atmospheric temperature and relative humidity.</p> <p><b>Control measure:</b></p> <ul style="list-style-type: none"> <li>➤ Spray borax (0.2%) and calcium chloride</li> <li>➤ Timely application of irrigation.</li> </ul>	<b>2+2=4</b>