

## Instruction Sheet for the Candidate

<b>Qualification</b>	Tunnel Farming, Greenhouse & Agribusiness(Level-5)
<b>Competency Standard</b>	Perform IPM and IDM
<b>Purpose of Assessment</b>	Formative Assessment
<b>Candidate Details</b>	Name_____ Registration/Roll Number_____
<b>Guidance for Candidate</b>	<p><b>To meet this standard, you are required to complete the following within time frame (for practical demonstration &amp; assessment):</b></p> <ol style="list-style-type: none"> <li>1. Identify pest invasion</li> <li>2. Schedule the Implementation of control strategies by IPM</li> <li>3. Perform Biological control</li> <li>4. Perform Physical control</li> <li>5. Perform Cultural control</li> <li>6. Perform Chemical control</li> <li>7. Perform pest control measures</li> <li>8. Inspect Control measures</li> </ol>
<b>Time: 03 Hrs.</b>	<p>During a practical assessment, under observation by an assessor, you are required to :</p> <p style="text-align: center;"><b>Identify pest invasion</b></p> <ul style="list-style-type: none"> <li>• Identify plant pest and disorders according to prescribed IPM standards.</li> <li>• Identify the beneficial organisms according to insect orders.</li> <li>• Assess Scope and size of the damage according to economic threshold level (ETL)</li> <li>• Follow health and safety standards required</li> </ul>
<ul style="list-style-type: none"> <li>• <b>Minimum Evidence Required</b></li> </ul>	<p style="text-align: center;"><b>Schedule the Implementation of control strategies by IPM</b></p> <ul style="list-style-type: none"> <li>• Select required control activities according to damage.</li> <li>• Identify and arrange tools, equipment's, machinery, and biological cards for required activity.</li> <li>• Ensure Risks and hazards management according to safety standards.</li> <li>• Ensure Personal Protective Equipment (PPE) according to required operations.</li> <li>• Ensure Eco-friendly procedures according to standards.</li> <li>• Perform management operations</li> </ul> <p style="text-align: center;"><b>Perform Biological control</b></p> <ul style="list-style-type: none"> <li>• Perform identification for effectiveness of biological control agents.</li> <li>• Perform application of biological control agents as per recommendations.</li> <li>• Periodic inspection for its effectiveness.</li> <li>• Make visits and evaluate results.</li> </ul>

	<ul style="list-style-type: none"> <li>• Ensure health and safety standards</li> <li>• Ensure personnel hygiene and work place sanitation according to required set standard</li> </ul> <p><b>Perform Physical control</b></p> <ul style="list-style-type: none"> <li>• Perform identification for effectiveness of Physical control agents.</li> <li>• Perform application of Physical control agents as per recommendations.</li> <li>• Periodic inspection for its effectiveness.</li> <li>• Make visits and evaluate results</li> </ul> <p><b>Perform Cultural control</b></p> <ul style="list-style-type: none"> <li>• Perform identification for effectiveness of Physical control agents.</li> <li>• Perform identification and arrange Cultural control tools</li> <li>• Perform Physical control agents as per recommendations.</li> <li>• Periodic inspection for its effectiveness.</li> <li>• Make visits and evaluate results.</li> <li>• Ensure PPEs.</li> </ul> <p><b>Perform Chemical control</b></p> <ul style="list-style-type: none"> <li>• Perform identification for effectiveness of Chemical control agents.</li> <li>• Perform identification and arrange chemicals (pesticides)</li> <li>• Perform application of Chemical (pesticides) as per recommendations.</li> <li>• Periodic inspection for its effectiveness.</li> <li>• Make visits and evaluate results.</li> <li>• Ensure PPEs.</li> </ul> <p><b>Perform pest control measures</b></p> <ul style="list-style-type: none"> <li>• Identify and arrange required tools and chemicals required to perform IPM activity</li> <li>• Implement IPM standards.</li> <li>• Maintain work place after completion of each activity.</li> <li>• Prepare performance report according to format.</li> <li>• Maintain record according to legislative guidelines.</li> </ul> <p><b>Inspect Control measures</b></p> <ul style="list-style-type: none"> <li>• Check side effects of control measures on plants and external environment.</li> <li>• Measure efficiency of applied control activity with reference to standard protocols.</li> <li>• Regulate IPM control methods to meet organizational requisites.</li> </ul>
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## Self-Assessment Checklist

<b>Candidate Name</b>	
<b>Registration No.</b>	
<b>Qualification</b>	Tunnel Farming, Greenhouse & Agribusiness(Level-5)
<b>Competency Standard</b>	Perform IPM and IDM
<b>Purpose of Assessment</b>	Formative Assessment
<b>Assessment Task</b>	<ol style="list-style-type: none"> <li>1. Identify pest invasion</li> <li>2. Schedule the Implementation of control strategies by IPM</li> <li>3. Perform Biological control</li> <li>4. Perform Physical control</li> <li>5. Perform Cultural control</li> <li>6. Perform Chemical control</li> <li>7. Perform pest control measures</li> <li>8. Inspect Control measures.</li> </ol>

I can.....

Performance Criteria	Yes	No
1. Identify plant pest and disorders according to prescribed IPM standards.	<input type="checkbox"/>	<input type="checkbox"/>
2. Identify the beneficial organisms according to insect orders.	<input type="checkbox"/>	<input type="checkbox"/>
3. Assess Scope and size of the damage according to economic threshold level (ETL)	<input type="checkbox"/>	<input type="checkbox"/>
4. Follow health and safety standards required	<input type="checkbox"/>	<input type="checkbox"/>
5. Select required control activities according to damage.	<input type="checkbox"/>	<input type="checkbox"/>
6. Identify and arrange tools, equipment's, machinery, and biological cards for required activity.	<input type="checkbox"/>	<input type="checkbox"/>
7. Ensure Risks and hazards management according to safety standards.	<input type="checkbox"/>	<input type="checkbox"/>
8. Ensure Personal Protective Equipment (PPE) according to required operations.	<input type="checkbox"/>	<input type="checkbox"/>
9. Perform identification for effectiveness of biological control agents.	<input type="checkbox"/>	<input type="checkbox"/>
10. Perform application of biological control agents as per recommendations.	<input type="checkbox"/>	<input type="checkbox"/>
11. Periodic inspection for its effeteness.	<input type="checkbox"/>	<input type="checkbox"/>
12. Make visits and evaluate results.	<input type="checkbox"/>	<input type="checkbox"/>
13. Ensure health and safety standards	<input type="checkbox"/>	<input type="checkbox"/>
14. Ensure stock level as per requirement	<input type="checkbox"/>	<input type="checkbox"/>
15. Ensure safe placement of records	<input type="checkbox"/>	<input type="checkbox"/>

16. Perform identification for effectiveness of Physical control agents.	<input type="checkbox"/>	<input type="checkbox"/>
17. Perform application of Physical control agents as per recommendations.	<input type="checkbox"/>	<input type="checkbox"/>
18. Periodic inspection for its effectiveness.	<input type="checkbox"/>	<input type="checkbox"/>
19. Make visits and evaluate results.	<input type="checkbox"/>	<input type="checkbox"/>
20. Follow health and safety standards	<input type="checkbox"/>	<input type="checkbox"/>
21. Perform identification for effectiveness of Physical control agents.	<input type="checkbox"/>	<input type="checkbox"/>
22. Perform identification and arrange Cultural control tools	<input type="checkbox"/>	<input type="checkbox"/>
23. Perform Physical control agents as per recommendations.	<input type="checkbox"/>	<input type="checkbox"/>
24. Periodic inspection for its effectiveness.	<input type="checkbox"/>	<input type="checkbox"/>
25. Make visits and evaluate results.	<input type="checkbox"/>	<input type="checkbox"/>
26. Ensure PPEs.	<input type="checkbox"/>	<input type="checkbox"/>
27. Perform identification for effectiveness of Chemical control agents.	<input type="checkbox"/>	<input type="checkbox"/>
28. Perform identification and arrange chemicals (pesticides)	<input type="checkbox"/>	<input type="checkbox"/>
29. Perform application of Chemical (pesticides) as per recommendations.	<input type="checkbox"/>	<input type="checkbox"/>
30. Periodic inspection for its effectiveness.	<input type="checkbox"/>	<input type="checkbox"/>
31. Make visits and evaluate results.	<input type="checkbox"/>	<input type="checkbox"/>
32. Ensure PPEs.	<input type="checkbox"/>	<input type="checkbox"/>
33. Identify and arrange required tools and chemicals required to perform IPM activity	<input type="checkbox"/>	<input type="checkbox"/>
34. Implement IPM standards.	<input type="checkbox"/>	<input type="checkbox"/>
35. Maintain work place after completion of each activity.	<input type="checkbox"/>	<input type="checkbox"/>
36. Prepare performance report according to format.	<input type="checkbox"/>	<input type="checkbox"/>
37. Maintain record according to legislative guidelines.	<input type="checkbox"/>	<input type="checkbox"/>
38. Check side effects of control measures on plants and external environment.	<input type="checkbox"/>	<input type="checkbox"/>
39. Measure efficiency of applied control activity with reference to standard protocols.	<input type="checkbox"/>	<input type="checkbox"/>
40. Regulate IPM control methods to meet organizational requisites.	<input type="checkbox"/>	<input type="checkbox"/>

Candidate's Signature \_\_\_\_\_ Assessor's Signature \_\_\_\_\_

Date: \_\_\_\_\_

## Assessors Judgment Guide

<b>Qualification</b>	Tunnel Farming, Greenhouse & Agribusiness(Level-5)
<b>Competency Standard</b>	Perform IPM and IDM
<b>Purpose of Assessment</b>	Formative Assessment
<b>Candidate Details</b>	Name: _____ Registration/Roll Number: _____ Signature: _____
<b>Assessment Outcome</b>	<div style="display: flex; justify-content: space-around; align-items: center;"> <span>COMPETENT <input type="checkbox"/></span> <span>NOT YETCOMPETENT <input type="checkbox"/></span> </div> Name of the Assessor _____ Assessor's code: _____ Signature: _____

Assessment Summary (to be filled by the assessor)							
Activity	Method					Result	
Nature of Activity	Written	Oral	Observation	Portfolio	Role Play	Competent	Not Yet Competent
Practical Skill Demonstration			✓				
Knowledge Assessment		✓					
Other Requirement							

## Observation Checklist

<b>Assessment Task</b>	<ol style="list-style-type: none"> <li>1. Identify pest invasion</li> <li>2. Schedule the Implementation of control strategies by IPM</li> <li>3. Perform Biological control</li> <li>4. Perform Physical control</li> <li>5. Perform Cultural control</li> <li>6. Perform Chemical control</li> <li>7. Perform pest control measures</li> <li>8. Inspect Control measures</li> </ol>			
<b>During the practical assessment, candidate demonstrated the following:</b>		<b>Yes</b>	<b>No</b>	<b>Remarks</b>
1.	Identify plant pest and disorders according to prescribed IPM standards.	<input type="checkbox"/>	<input type="checkbox"/>	
2.	Identify the beneficial organisms according to insect orders.	<input type="checkbox"/>	<input type="checkbox"/>	
3.	Assess Scope and size of the damage according to economic threshold level (ETL)	<input type="checkbox"/>	<input type="checkbox"/>	
4.	Follow health and safety standards required	<input type="checkbox"/>	<input type="checkbox"/>	
5.	Select required control activities according to damage.	<input type="checkbox"/>	<input type="checkbox"/>	
6.	Identify and arrange tools, equipment's, machinery, and biological cards for required activity.	<input type="checkbox"/>	<input type="checkbox"/>	
7.	Ensure Risks and hazards management according to safety standards.	<input type="checkbox"/>	<input type="checkbox"/>	
8.	Ensure Personal Protective Equipment (PPE) according to required operations.	<input type="checkbox"/>	<input type="checkbox"/>	
9.	Ensure Eco-friendly procedures according to standards.	<input type="checkbox"/>	<input type="checkbox"/>	
10.	Perform identification for effectiveness of biological control agents.	<input type="checkbox"/>	<input type="checkbox"/>	
11.	Perform application of biological control agents as per recommendations.	<input type="checkbox"/>	<input type="checkbox"/>	
12.	Periodic inspection for its effeteness.	<input type="checkbox"/>	<input type="checkbox"/>	
13.	Make visits and evaluate results.	<input type="checkbox"/>	<input type="checkbox"/>	
14.	Ensure health and safety standards	<input type="checkbox"/>	<input type="checkbox"/>	
15.	Perform identification for effectiveness of Physical control agents.	<input type="checkbox"/>	<input type="checkbox"/>	

16.	Perform application of Physical control agents as per recommendations.	<input type="checkbox"/>	<input type="checkbox"/>	
17.	Periodic inspection for its effectiveness.	<input type="checkbox"/>	<input type="checkbox"/>	
18.	Make visits and evaluate results.	<input type="checkbox"/>	<input type="checkbox"/>	
19.	Follow health and safety standards	<input type="checkbox"/>	<input type="checkbox"/>	
20.	Perform identification for effectiveness of Physical control agents.	<input type="checkbox"/>	<input type="checkbox"/>	
21.	Perform identification and arrange Cultural control tools	<input type="checkbox"/>	<input type="checkbox"/>	
22.	Perform Physical control agents as per recommendations.	<input type="checkbox"/>	<input type="checkbox"/>	
23.	Periodic inspection for its effectiveness.	<input type="checkbox"/>	<input type="checkbox"/>	
24.	Make visits and evaluate results.	<input type="checkbox"/>	<input type="checkbox"/>	
25.	Ensure PPEs.	<input type="checkbox"/>	<input type="checkbox"/>	
26.	Perform identification for effectiveness of Chemical control agents.	<input type="checkbox"/>	<input type="checkbox"/>	
27.	Perform identification and arrange chemicals (pesticides)	<input type="checkbox"/>	<input type="checkbox"/>	
28.	Perform application of Chemical (pesticides) as per recommendations.	<input type="checkbox"/>	<input type="checkbox"/>	
29.	Periodic inspection for its effectiveness.	<input type="checkbox"/>	<input type="checkbox"/>	
30.	Make visits and evaluate results.	<input type="checkbox"/>	<input type="checkbox"/>	
31.	Identify and arrange required tools and chemicals required to perform IPM activity	<input type="checkbox"/>	<input type="checkbox"/>	
32.	Implement IPM standards.	<input type="checkbox"/>	<input type="checkbox"/>	
33.	Maintain work place after completion of each activity.	<input type="checkbox"/>	<input type="checkbox"/>	
34.	Prepare performance report according to format.	<input type="checkbox"/>	<input type="checkbox"/>	

35.	Maintain record according to legislative guidelines.	<input type="text"/>	<input type="text"/>	
36.	Check side effects of control measures on plants and external environment.	<input type="text"/>	<input type="text"/>	
37.	Measure efficiency of applied control activity with reference to standard protocols.	<input type="text"/>	<input type="text"/>	
38.	Regulate IPM control methods to meet organizational requisites.	<input type="text"/>	<input type="text"/>	
Competent <input type="checkbox"/>		Not Yet Competent <input type="checkbox"/>		



## Knowledge Assessment

<b>Qualification</b>	Tunnel Farming, Greenhouse & Agribusiness(Level-5)
<b>Competency Standard</b>	Perform IPM and IDM
<b>Purpose of Assessment</b>	Formative Assessment
<b>Candidate Details</b>	Name: _____ Registration/Roll Number: _____ Candidate Signature: _____
<b>Assessment Outcome</b>	<div style="display: flex; justify-content: space-around; align-items: center;"> <span><b>COMPETENT</b> <input type="checkbox"/></span> <span><b>NOT YET COMPETENT</b> <input type="checkbox"/></span> </div> Name of the Assessor: _____ Assessor's code: _____ Signature of the Assessor: _____

Candidate's response is not required to be identical, but similar concepts and/or keywords must be used. Oral questioning may be used to clarify candidate understanding of topic and its application.

Questions (Candidate confidently answered questions correctly and demonstrated understanding of the topics and their application)		Satisfactory	Not Satisfactory
1.	Define insect pest?		
2.	What is pest invasion?		
3.	How can we differentiate between IPM and IDM?		

4.	What are the management practices done to Perform IPM and IDM?		
5.	What are the standards of IPM and IDM?		

<b>Feedback to the Candidate</b>	
<b>Candidate's Signature</b> _____	<b>Assessor's Signature</b> _____