PRACTICE SET
End Semester (5th Semester) Examination, December, 2025

Program: B. Sc. (Hons.) Agriculture
Subject: Pests of Crops and Stored Grains and their Management
Subject Code: 13A.313

Course Outcome:

At the end of the course, the students will be able to

CO1: Identify major arthropod pests based on their scientific classification, biology, host range, and distribution, and explain the types and nature of damage they cause to various crops.

CO2: Diagnose pest infestations in field, vegetable, and fruit crops, and recommend appropriate integrated pest management strategies for their effective control.

CO3: Recognize the key arthropod pests of plantation, ornamental, spice, and condiment crops, and apply suitable pest management practices based on crop type and pest behavior.

CO4: Analyze the causes of post-harvest losses in stored grains, identify pests and other biological agents involved, and apply scientific principles of grain storage and pest control techniques.

Unit / Module-1

Section: I (5 Marks questions, only Lower order Thinking -LOT)

Sl. No.	Model Questions	Bloom Taxonomy	CO
1.	Explain how sap-sucking pests, such as aphids weaken plants.	Understand	CO1
2.	Enlist five major damage symptoms caused by sap sucking insects	Remember	CO1
3.	Define arthropod pests and provide examples of common of pests.	Remember	CO1
4.	Describe the nature and type of damage caused by different arthropod pests in agricultural crops.	Remember	CO1
5.	Explain the damage caused by direct defoliators on crop yield.	Understand	CO1

Section: II (15 Marks questions, HOT)

Sl. No.	Model Questions	Bloom Taxonomy	CO
6.	Explain the nature of damage and management practices of three major sucking pests. Compare the advantages and limitations of chemical vs. cultural control methods used against them.	Analyse	CO1
7.	Explain in detail the nature and type of damage caused by different arthropod pests in major horticultural crops. Discuss how the feeding behavior of these pests influences the type of damage and crop yield loss.	Analyse	CO1
8.	Explain the importance of studying the scientific classification, host range, and distribution of insect pests. Analyze how these aspects assist in forecasting pest occurrence and implementing preventive control measures.	Analyse	CO1
9.	Formulate a table of the biology and bionomics of any two polyphagous insect pests**.** Critically analyze how understanding their life cycle helps in designing effective integrated pest management (IPM) strategies.	Create	CO1
10.	Compare the feeding damage caused by leaf miners, defoliators and borers, discussing their unique impacts on plant health.	Analyze	CO1

Unit / Module-2

Section: I (5 Marks questions, only Lower order Thinking -LOT)

Sl. No.	Model Questions	Bloom Taxonomy	CO
11.	State the host, nature of damage and control practices of tomato fruit borer.	Remember	CO2
12.	Explain how fall armyworms affect the growth and yield of maize and mention the stages of the crop which are most vulnerable?	Understand	CO2
13.	List any three economically important arthropod pests of field, vegetable and fruit crops and mention their nature of	Remember	CO2

	damage.		
14.	Discuss the nature of damage and control measures of the cotton bollworm (*Helicoverpa armigera*).	Understand	CO2
15.	Give a brief account of the biology and management of the melon fruit fly (*Bactrocera cucurbitae*)	Remember	CO2

Section: II (15 Marks questions, HOT)

Sl. No.	Model Questions	Bloom Taxonomy	CO
16.	Explain the taxonomy, nature of damage, and management strategies of five major field crop pests	Analyse	CO2
17.	Evaluate the relationship between the feeding behavior and damage symptoms of major vegetable crop pests. Justify how understanding these symptoms helps in timely decision-making and IPM implementation**.**	Evaluate	CO2
18.	Appraise the effectiveness and sustainability of different management strategies (chemical, biological, and cultural) used against fruit crop pests. Suggest eco-friendly improvements to existing practices based on pest biology and ecology.	Evaluate	CO2
19.	Assess the effectiveness of Integrated Pest Management (IPM) strategies in controlling multi-host pest species. Discuss how a strong understanding of taxonomy, biology, and damage mechanisms contributes to long-term pest suppression.	Evaluate	CO2
20.	Formulate a table by mentioning the taxonomy, host range, and distribution of three major fruit crop pests Mention the damage symptoms they produce and suggest suitable preventive and curative management measures**.**	Create	CO2

Unit / Module-3

Section: I (5 Marks questions, only Lower order Thinking -LOT)

Sl. No.	Model Questions	Bloom Taxonomy	CO
21.	Enlist scientific name, order, family, and host range of any two major pests of tea or coffee plantations**.**	Remember	CO3
22.	Explain the nature of damage and control measures of the coconut rhinoceros beetle	Understand	CO3
23.	State the scientific name, order, family, and host plants of the black pepper pollu beetle.	Remember	CO3
24.	Illustrate the damage symptoms and control practices of the coffee berry borer.	Apply	CO3
25.	Explain how red spider mite damages on coffee and tea plantation.	Understand	CO3

Section: II (15 Marks questions, HOT)

Sl. No.	Model Questions	Bloom Taxonomy	CO
26.	Review the impact of climate, host plant diversity, and cropping systems on the distribution, severity, and management success of plantation pests such as the coconut rhinoceros beetle and tea mosquito bug**.** Explain adaptive management strategies under changing environmental conditions.	Evaluate	CO3
27.	Compare and contrast the damage symptoms and management approaches of boring pests and sucking pests in plantation and spice crops. Critically discuss how understanding the mode of feeding influences the choice of control measures in IPM programs**.**	Analyse	CO3
28.	Appraise the damage caused by black-headed caterpillars, Pollu beetle, and rose thrips, and describe appropriate management practices for controlling these pests.	Evaluate	CO3
29.	Analyze how black pepper pollu beetle (*Longitarsus nigripennis*) infestations affect crop yield and suggest eco-friendly control strategies based on pest life cycle and feeding habits.	Analyse	CO3
30.	Explain the distribution, host range, damage symptoms, bionomics, and management of three major pests of rose crops, including their scientific names, orders, and families	Analyse	CO3

Unit / Module-4

Section: I (5 Marks questions, only Lower order Thinking -LOT)

Sl. No.	Model Questions	Bloom Taxonomy	CO
31.	Discuss the basic principles of grain store management.	Understand	CO4
32.	Apply integrated pest management (IPM) to control insect pests in a grain storage facility.	Apply	CO4
33.	Describe the major types of storage structures used for grains and mention one advantage and limitation of each.	Understand	CO4
34.	Mention the types of rodents and birds that cause losses in stored grains and state one common management measure for each.	Remember	CO4
35.	List and explain the physical, biological, mechanical, and chemical factors that contribute to the deterioration of stored grains.	Remember	CO4

Section: II (15 Marks questions, HOT)

Sl. No.	Model Questions	Bloom Taxonomy	CO
36.	Judge the effectiveness of integrated pest management (IPM) strategies in stored grains. Include discussion on chemical, physical, and biological controls, and how knowledge of pest biology and grain deterioration factors improves storage outcomes.	Evaluate	CO4
37.	Propose an integrated plan for grain storage management that includes guidelines for pest control, moisture management, and structural maintenance.	Create	CO4
38.	Explain five primary and secondary pests of storage along with taxonomy. Describe nature of damage and control practices of one primary pest and one secondary pest.	Analyse	CO4
39.	Compare the chemical and biological control practices of storage grain pests.	Analyse	CO4

40.	Explain the physical factors involved in controlling stored grain losses due to deterioration.	Analyse	CO4

SUMMARY SHEET:

CO WISE

CO	Question No.	Marks
CO1	1, 2, 3, 4, 5, 6, 7, 8, 9, 10	100
CO2	11, 12, 13, 14, 15, 16, 17, 18, 19, 20	100
CO3	21, 22, 23, 24, 25, 26, 27, 28, 29, 30	100
CO4	31, 32, 33, 34, 35, 36, 37, 38, 39, 40	100
TOTAL		**400**

UNIT Wise

CO	Question No.	Marks
UNIT1	1-10	100
UNIT2	11-20	100
UNIT3	21-30	100
UNIT4	31-40	100
TOTAL		**400**

BLOOM'S Taxonomy Level (BTL) Wise

BTL	Question. No.	Marks

LOT	1, 2, 3, 4, 5, 11, 12, 13, 14, 15, 21, 22, 23, 24, 25, 31, 32, 33, 34, 35,	100
HOT	6, 7, 8, 9, 10, 16, 17, 18, 19,20, 26, 27, 28, 29, 30, 36, 37, 38, 39, 40	300
TOTAL		**400**

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Disclaimer: - This is a practice set. The Question in End semester examination will differ from the practice set. This practice set is meant for practice only.