JHARKHAND Rai University
RANCHI

End Semester/Reappear (Semester II) Examination May 2025

Programme:B. Sc. (Hons.) Agriculture

Course:Fundamentals of Entomology **Full Marks: 50**

Course Code: 13A.158 **Time: 2 Hrs.**

Enrolment no. _____

Q.No.	Questions	CO	Bloom Taxonomy Category	Marks
	Section I			
1	**Short Answer type questions.**			**4 x 5 = 20**
a	Illustrate insect metamorphosis and its types.	CO1	Apply	
	or			
	Discuss the role of Malpighian tubule in insect excretory system.	CO1	Understand	
b	Mention different kinds of insect symbiosis along with examples.	CO2	Remember	
	or			
	Explain effect of light on insect population.	CO2	Understand	
c	Explain the types of liquid formulations of insecticides.	CO2	Understand	
	or			
	Briefly discuss the symptoms of insecticide poisoning and mention their precautions.	CO2	Remember	
d	Illustrate characteristics of Isoptera insect order.	CO2	Apply	
	or			
	State the taxonomical characteristics of Cicadellidae family of Hemiptera order along with example.	CO2	Remember	
	Section II			
Long Answer type questions. Answer any two.				**2 x 15 = 30**
2	a. Classify insect respiratory system based on number and location of functional spiracles.	CO1	Analyze	10
	b.Explain reproductive system in insect body with diagram.	CO1	Analyze	5
	or			
	a. Design an insect wing structure based on wing venation, wing margin and wing angle.	CO1	Create	10
	b. Explain the relationship of class Insecta with other classes of Arthropoda.	CO1	Analyze	5
3	a. Classify Diptera order up to families and mention characteristics of all families along with example under this order.	CO2	Analyze	10
	b.Classify insects up to orders based on Imms classification. Give examples under each insect order.	CO2	Analyze	5
	or			
	a. Distinguish moth and butterfly based on their taxonomic characteristics. Differentiate beetle from weevil.	CO2	Analyze	10
	b.Explain characteristics of Orthoptera order and its families.	CO2	Analyze	5

Course Outcome:

At the end of the course, the student will be able to;

CO1 Understand the phenomenon of dominance of insecta, phyllum and classes of arthopoda, morphology, various systems and structure of different body parts of insects.

CO2 Know about insect ecology, orders and families of insects of agricultural importance, ipm ,various insecticides, chemical control-importance, application techniques of insecticides, taxonomy, binomial nomenclature, methods of collection and preservation of insects, insecticides act.