# PSG COLLEGE OF ARTS & SCIENCE (AUTONOMOUS)

# MSc DEGREE EXAMINATION MAY 2025

(Second Semester)

#### Branch - ZOOLOGY

# MAJOR ELECTIVE COURSE-I: ECONOMIC ZOOLOGY

Time: Three Hours

Maximum: 75 Marks

## SECTION-A (10 Marks)

Answer ALL questions

ALL questions carry EQUAL marks  $(10 \times 1 = 10)$ 

ALL questions carry EQUAL marks  Question  How long does it take for an earthworm's cocoon to hatch under optimal conditions?  a) 1-2 days b) 2-3 weeks c) 2-3 months d) 6-7 months  What is the ideal temperature range for vermiculture? a) 0-10°C b) 10-20°C c) 20-30°C d) 30-40°C  What is the recommended moisture content for a vermicomposting system? a) 20-30% b) 40-50%	K Level K1	CO1
under optimal conditions?  a) 1-2 days b) 2-3 weeks c) 2-3 months d) 6-7 months  What is the ideal temperature range for vermiculture? a) 0-10°C b) 10-20°C c) 20-30°C d) 30-40°C  What is the recommended moisture content for a vermicomposting system? a) 20-30% b) 40-50%		
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What is the recommended moisture content for a vermicomposting system? a) 20-30% b) 40-50%		
c) 60-70% d) 80-90%	K1	CO2
Vermicast is known for improving plant growth due to its:  a) Rich nutrients (NPK) b) High nitrogen content only c) Ability to reduce pH levels in the soil d) High Potassium content only	K2	CO2
How much honey can a single Rock Bee colony produce annually?  a) 2-5 kg b) 10-15 kg c) 20-30 kg d) 40-50 kg	K1	CO3
What type of pheromone does the queen bee release to regulate the hive's activities?  a) Alarm pheromone b) Nasonov pheromone c) Queen mandibular pheromone d) Brood pheromone	K2	CO2
How do bees regulate the temperature inside the hive during hot weather?  a) They stop flying  b) They create air flow by fanning their wings  c) They leave the hive	K1	CO4
What is the primary purpose of a smoker in beekeeping?  a) To calm the bees  b) To heat the hive	K2	CO <sup>2</sup>
Which of the following is the primary sugar found in honey?	K1	COS
Which enzyme in bee venom contributes to the breakdown	К2	CO:
	d) They eat more nectar  What is the primary purpose of a smoker in beekeeping?  a) To calm the bees b) To heat the hive c) To extract honey d) To feed the bees  Which of the following is the primary sugar found in honey? a) Sucrose b) Lactose c) Maltose d) Fructose	d) They eat more nectar  What is the primary purpose of a smoker in beekeeping?  a) To calm the bees b) To heat the hive c) To extract honey d) To feed the bees  Which of the following is the primary sugar found in honey?  a) Sucrose b) Lactose c) Maltose d) Fructose  Which enzyme in bee venom contributes to the breakdown of cell membranes and enhances pain?  a) Melittin b) Phospholipase A2

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### SECTION - B (35 Marks)

Answer ALL questions

ALL questions carry EOUAL Marks  $(5 \times 7 = 35)$ 

Module No.	Question No.	Question	K Level	СО
1	11.a.	Explain the scope and significance of vermiculture.		CO1
		(OR)	K4	
	11.b.	Discover the poly-vermiculture system and their importance.		
2	12.a.	Elaborate on the transport and maintenance of vermicast.	K6	CO2
		(OR)		
	12.b.	Explain the preparation of vermiwash and their application in the agricultural practices.		
3	13.a.	Describe the culture techniques of Apis indica.	K5	CO3
		(OR)		
	13.b.	Explore the life cycle of Apis dorsata.		
4	14.a.	Predict the site selection and mechanism of colony farming of honey bees.	K6	CO4
		(OR)		
	14.b.	Determine the role of the bee hive tool in enhancing hive productivity.		
5	15.a.	Evaluate the medicinal value of honey bee.		CO5
		(OR)	K4	
	15.b.	Explain the bee wax and its uses.		

SECTION -C (30 Marks)
Answer ANY THREE questions
ALL questions carry EQUAL Marks  $(3 \times 10 = 30)$ 

Module No.	Question No.	Question	K Level	СО
1	16	Discuss the preparation of indoor and outdoor methods of vermiculture.	K6	CO1
2	1.7	Elaborate on the role of vermitechnology in organic farming.	K6	CO2
3	18	Discuss the pollen, nectar-yielding plants and natural enemies of honey bees.	K6	CO3
4	19	Examine the role of wax capping removal in the honey extraction process and Explain the methods used to remove it.	K5	CO4
5	20	Evaluate the impact of honey's mineral content on its health benefits.	K5	CO5

Z-Z-Z END