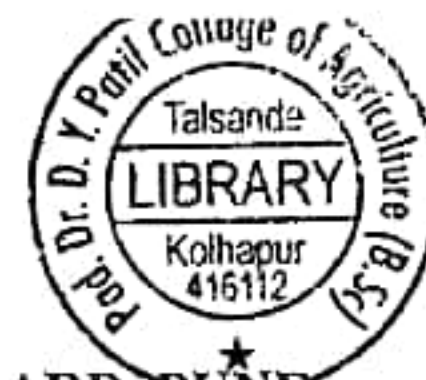


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MAHARASHTRA AGRICULTURAL UNIVERSITIES EXAMINATION BOARD, PUNE SEMESTER END EXAMINATION

B.Sc. (Agri.)

Semester	: VI (New)	Term	: II	Academic Year	: 2010-11
Course No.	: ENTO 364	Title	: Introductory Nematology		
Credits	: 2 (1+1)				
Day & Date	: Thursday, 28.04.2011	Time	: 09.00 to 11.00	Total Marks	: 40

- Note :
1. Solve ANY EIGHT questions from SECTION "A".
 2. All questions from SECTION "B" are compulsory.
 3. All questions carry equal marks.
 4. Draw neat diagrams wherever necessary.

SECTION "A"

- Q.1 Classify nematodes with examples based on the place of plant where the nematodes attack / feeding.
- Q.2 Explain in detail the digestive system of nematodes.
- Q.3 Name the different methods of nematode management and explain the cultural method of nematode management.
- Q.4 Write characteristics and symptomatology of the genus *Heterodera* and *Globodera*.
- Q.5 Enlist general characteristics of plant parasitic nematodes.
- Q.6 Write in detail the symptoms of damage by plant parasitic nematodes with one example.
- Q.7 Explain the role of nematodes as a vector in transmission of plant diseases.
- Q.8 Elaborate in brief the scope and economic importance of nematodes in Agriculture.
- Q.9 Explain morphological characters of male and female nematodes.
- Q.10 Write short notes (Any two):
- 1) Male reproductive system of nematodes.
 - 2) Integrated Nematodes Management
 - 3) Biological control of nematodes.

SECTION "B"

- Q.11 Match the pairs:

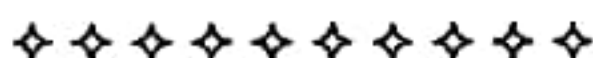
"A"

"B"

- | | |
|--------------------------|---|
| 1) Kidney shaped females | a) Physical method of nematodes control |
| 2) Hot water treatment | b) Meloidogyne |
| 3) Root galling in crops | c) Ear cockle disease in wheat |
| 4) <i>Anguina tritic</i> | d) <i>Rotylenchulus reniformis</i> |

- Q.12 Do as directed:

- 1) Define Agricultural nematology
- 2) Define helminthology
- 3) Name the nematological journal published in India.
- 4) Name the reference book on nematology along with author.



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**MAHARASHTRA AGRICULTURAL UNIVERSITIES EXAMINATION BOARD, PUNE
SEMESTER END EXAMINATION**

B.Sc. (Agri.)

Semester : VI (New)	Term : II	Academic Year : 2012-13
Course No. : ENTO 364	Title : Introductory Nematology	
Credits : 2 (1+1)		
Day & Date : Saturday, 27.04.2013	Time : 09.00 to 11.00	Total Marks : 40

- Note :**
1. Solve ANY EIGHT questions from SECTION "A".
 2. All questions from SECTION "B" are compulsory.
 3. All questions carry equal marks.
 4. Draw neat diagrams wherever necessary.

SECTION "A"

- Q.1 Enlist the general characteristics of plant parasitic nematodes.
- Q.2 Classify the phylum Nematoda upto order level and state the characters of Order Tylenchida.
- Q.3 State in brief the economic importance of plant parasitic nematodes in agriculture.
- Q.4 Describe in brief the disease symptoms caused by plant parasitic nematodes with one example.
- Q.5 Classify the nematodes on the basis of parasitism or feeding habitat with suitable examples.
- Q.6 Enlist the disease causing interaction between plant parasitic nematodes with different pathogens and describe in detail the nematode-fungus interaction.
- Q.7 Explain in detail the female reproductive system of nematode with suitable well labeled diagram.
- Q.8 Enumerate the morphological characters and biology of nematodes.
- Q.9 Name the different methods of nematode management and describe in brief cultural method of nematode management.
- Q.10 Write short notes on (Any Two)
- 1) Soil solarization
 - 2) Entomopathogenic nematode
 - 3) Biological method of nematode management
 - 4) Characteristics and symptoms of the genus Meloidogyne

SECTION "B"

- Q.11 Do as directed.
- 1) Define nematodes.
 - 2) Who is the father of American nematology?
 - 3) Who reported the first plant parasitic nematode in the world?
 - 4) In which year Division of Nematology was establishment at IARI, New Delhi.
- Q.12 Fill in the blanks.
- 1) The cloacal aperture in the male is known as _____.
 - 2) _____ help in holding the female during copulation.
 - 3) Plant nematodes are _____ parasite.
 - 4) _____ are the chemosensory organs located in the head region and play a vital role in host finding.

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MAHARASHTRA AGRICULTURAL UNIVERSITIES EXAMINATION BOARD, PUNE
SEMESTER END EXAMINATION

B.Sc. (Agri.)

Semester	: VI (New)	Term	: II	Academic Year	: 2013-14
Course No.	: ENTO 364	Title	: Introductory Nematology		
Credits	: 2 (1+1)				
Day & Date	: Wednesday, 07.05.2014	Time	: 09.00 to 11.00	Total Marks	: 40

- Note :
1. Solve ANY EIGHT questions from SECTION "A".
 2. All questions from SECTION "B" are compulsory.
 3. All questions carry equal marks.
 4. Draw neat diagrams wherever necessary.

SECTION "A"

- Q.1 Give the different symptoms of nematode damage on below ground parts with one example each.
- Q.2 Define Nematology. Enlist general characteristics of plant parasitic nematodes.
- Q.3 Write the general morphology of plant parasitic nematode.
- Q.4 a) Give the biology of plant parasitic nematodes.
b) Write in short in vivo production of EPN.
- Q.5 Differentiate Entomopathogenic nematode and Plant parasitic nematode.
- Q.6 Enlist different methods of nematode management. Write in detail about physical method.
- Q.7 Explain in short the different cultural methods of nematode management.
- Q.8 Describe the classification of plant parasitic nematodes on the basis of habitat with one example each.
- Q.9 Give the classification of nematodes up to orders.
- Q.10 Give the history of Nematology in India.

SECTION "B"

- Q.11 Match the pairs.

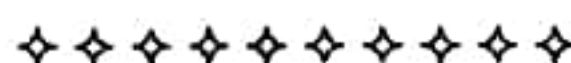
"A"

"B"

- | | |
|--------------------------------|--|
| 1) Burrowing nematode | a) Potato |
| 2) Golden nematode | b) <i>Rhadinaphelenchus cocophilus</i> |
| 3) Necrosis on coconut stem | c) <i>Anguina tritici</i> |
| 4) Ear cockle disease of wheat | d) <i>Radopholus similis</i> |

- Q.12 Fill in the blanks.

- 1) When the nematodes have two ovaries, then it is called as _____.
- 2) The phylum Nematoda is divided in two classes one Secernentea and _____.
- 3) The example of entomopathogenic nematode is _____.
- 4) The nematodes parasitic on man and domesticated animals are studied under _____.



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MAHARASHTRA AGRICULTURAL UNIVERSITIES EXAMINATION BOARD, PUNE
SEMESTER END EXAMINATION

B.Sc. (Agri.)

Semester : VI (New)	Term : II	Academic Year : 2014-15
Course No. : ENTO 364	Title : Introductory Nematology	
Credits : 2 (1+1)		
Day & Date : Tuesday, 19.05.2015	Time : 09.00 to 11.00	Total Marks : 40

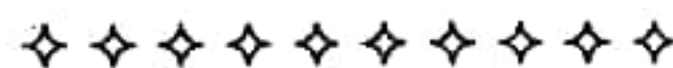
- Note :
1. Solve ANY EIGHT questions from SECTION "A".
 2. All questions from SECTION "B" are compulsory.
 3. All questions carry equal marks.
 4. Draw neat diagrams wherever necessary.

SECTION "A"

- Q.1 Explain in detail male and female reproductive system of nematode.
- Q.2 Give detail account on interaction of nematodes with microorganisms with suitable example.
- Q.3 Write in detail historical events in Nematology.
- Q.4 Define entomophillic nematode. Give mass production techniques for EPN *in-vivo*.
- Q.5 Enlist different methods of nematode control. Describe in detail cultural method with suitable example.
- Q.6 Describe classification of plant parasitic nematodes on the basis of habitat with suitable example.
- Q.7 Write short notes on (Any two).
- 1) Economic importance of nematodes in Agriculture
 - 2) Excretory system of nematodes
 - 3) Cuticle of nematode
- Q.8 Write characteristics and symptoms of genus *Radopholus* and *Ditylenchus*.
- Q.9 Explain in detail inner body tube nematode.
- Q.10 Give the classification of nematodes up to orders.

SECTION "B"

- Q.11 Do as directed.
- 1) Give casual organism of Ufra disease of rice.
 - 2) The stylet of Tylenchid nematode is called as _____ (Fill in the blank).
 - 3) State the family of genus *Meloidogyne*.
 - 4) UPAS 120 and Prabhat varieties of pigeon pea are resistant against _____ nematode. (Fill in the blank).
- Q.12 State True or False and correct if, necessary.
- 1) Dastur discovered the nematocidal properties of DD.
 - 2) *Paralongidorous* is the largest plant parasitic nematode.
 - 3) The male nematode with two testes is called as Diorchic.
 - 4) *Rotylenchulus reniformis* is sedentary semi-ectoparasite.



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