Seat No: _____ **Enrollment No: _____**

PARUL UNIVERSITY

COLLEGE OF AGRICULTURE

B.Sc.(Hons.)Agriculture, Summer 2017-18 Examination

Semester: 2 **Date: 15/05/2018**
Subject Code : 20107151 **Time: 10:30 am to 1:00 pm**
Subject Name: Introductory Nematology **Total Marks: 60**

Instructions

1. All questions are compulsory.
2. Figures to the right indicate full marks.
3. Make suitable assumptions wherever necessary.
4. Start new question on new page.

Q.1 Do as Directed. **(10)**

A. Fill in the blanks.

1. Nematicidal properties of DD mixture was discovered by _____.
2. *Xiphinema* sp. transmitted _____ disease was reported first time in plants.
3. White tip of rice was first time reported by _____ in India.
4. Citrus nematode was first time reported by _____ in India.
5. Root-knot nematodes are _____ in nature (parasitic term).
6. _____ stage of nematode is only infective.
7. _____ generations of root knot nematodes per year.
8. _____ & _____ chemicals are released under flooded conditions.
9. Nematodes having only one generation per year is known as _____.
10. Red ring nematode attacks on _____ plantings.

B. Multiple choice type questions. **(10)**

1. _____ discovered nematicidal properties of DD mixture.
   a) Carter c) Chitwood
   b) Tom Goodey d) Christie
2. _____ reported ufra disease of rice.
   a) Dastur c) Vasudeva
   b) Butler d) AM Khan
3. _____ reported white tip disease of rice.
   a) Dastur c) Vasudeva
   b) Butler d) AM Khan
4. _____ stage is only infective in nematodes.
   a) 1^{st} c) 3^{rd}
   b) 2^{nd} d) 4^{th}
5. Univoltine means _____ generation per year.
   a) 1 c) 3-5
   b) 1-2 d) 7-8
6. Root-knot nematodes reproduce through _____.
   a) Sexual reproduction c) Parthenogenesis
   b) Both A & B d) None of the above
7. Scientific name of root-knot nematode is_____
   a) *Heterodera*spp. c) *Meloidogyne*spp.
   b) *Anguina*spp. d) *Trichodorus*spp.
8. Example of above ground feeding nematode is _____
   a) *Heterodera*spp. c) *Meloidogyne*spp.
   b) *Anguinatritici* d) *Tylenchulus*spp.

9. Example of sedentary endoparasitic is _____

a) *Heterodera*spp. c) *Meloidogyne*spp.

b) *Globodera*spp. d) All of the above

10. Use of quarantine method for nematode management comes under _____

a)Regulatory method c) Cultural method

b)Physical method d) Biological control

Q-2. A. Define the following. (Any five) **(05)**

1. Sedentary endoparasite
2. Antagonistic crops
3. Flooding
4. Stylet
5. Fallowing
6. Quarantine
7. Root-knotting

B. Answer the following. (Any five) **(05)**

1. Name three reference books related to this course.
2. Explain meaning of word Nematology.
3. Define: Nematode
4. Enlist important characteristics of nematodes.
5. Give contribution of T. Needham.
6. Give examples of below ground feeding nematodes.
7. Define: Quarantine.

Q.3 Write short notes. (Any five) **(15)**

1. Draw typical labelled diagram of nematode.
2. Give important characteristics of root knot nematodes.
3. Explain below ground symptoms caused by nematodes.
4. Give contributions of followings: N A Cobb, Atkinson, Siddiqui and Ritzema-Bos.
5. Explain: Soil solarization.
6. Enlist different cultural methods used for nematode management

Q.4 Long questions (any three) **(15)**

1. Write down different between NEPO vs NETU.
2. Write down different between Chemical control vs Cultural control
3. Write down different between Ectoparasitic nematode vs Endoparasitic nematode
4. Explain different types of nematodes on the basis of their parasitic characters