



Registration No:

Total Number of Pages : 2

AR-2018

B.Sc (Ag)

2nd SEMESTER REGULAR EXAMINATIONS, SEPT/OCT 2019-20

PP-122

FUNDAMENTALS OF NEMATOLOGY

Time : 2 Hours

Maximum : 50 Marks

(Answer **all** questions of Section – A)

SECTION – A

Q 1. Fill in the blanks: 10X.0.5=5

- a. Feeding device of a plant parasitic nematode is called _____
- b. When the body gets relaxed after killing, *Helicotylenchus dihyster* attains _____ posture
- c. _____ is a lateral sensory structure present on the lip region of nematode.
- d. Two ovaries facing opposite in direction inside the Pseudocoelom is termed as _____.
- e. *Rhadinaphelenchus cocophilus* causes _____ disease in forest palms.
- f. Based on feeding habit of the plant parasitic nematodes, *Meloidogyne* is categorized as _____ nematode.
- g. Post anal extension of the nematode body towards posterior region is called _____.
- h. _____ is called the brain of the nematode.
- i. The infecting stage of root-knot nematode is _____
- j. Like snake, nematode undergoes _____ to attain the growth of its body.

Q.2. Define the following in one sentence (5 x 1=5)

- | | |
|-------------------------|--------------------|
| a. Phasmid | d. Cephalic region |
| b. Caudal alae | e. Cloaca |
| c. Intra oral digestion | |

Q.3. Mention the scientific name of the following nematodes (10 x 0.5=5)

- | | |
|-------------------------|-------------------------|
| a. Potato cyst nematode | f. Stem & bulb nematode |
| b. Reniform nematode | g. Red ring nematode |
| c. Burrowing nematode | h. Root lesion nematode |
| d. Citrus nematode | i. Lance nematode |
| e. Root knot nematode | j. Spiral nematode |

Q.4. Name the following (0.5x10=05)

- a. First plant parasitic nematode reported from India
- b. Synonym of nematode having serpentine movement
- c. O.U.A.T. released brinjal variety resistant to root knot nematode
- d. Scientific name of ring nematode
- e. Bacteria as biocontrol agent against nematodes
- f. Biological model nematode
- g. Sedentary semiendo parasitic nematode
- h. Brain of the nematode
- i. Synonym of excessive root branching
- j. Carbamate nematicide used against nematode



SECTION – B

(Attempt any **five** questions. Each question carries equal marks)

5x6=30

- Q.5. Enumerate the beneficial effect of nematodes with suitable examples.
- Q6. Define Nematology and enlist important characteristics of plant parasitic nematodes.
- Q7. Describe in brief the reproductive system of female nematodes with suitable leveled diagram.
- Q8. What is nematoda? What are some of its characteristics?
- Q9. Differentiate between the following
- | | | | |
|----|-------------------|-----|----------------------|
| a. | Obligate parasite | Vs. | Facultative parasite |
| b. | Giant cell | Vs. | Syncytium |
| c. | Antagonistic crop | Vs. | Trap crop |
| d. | Root nodule | Vs. | Root knot |
- Q10. Give a tabular classification of soil and plant nematodes based on their feeding habits/habitat with suitable examples on each.

==0==