

IGNOU

TERM END EXAMINATION, JUNE 2014

PhD LIFE SCIENCES

Introduction of Nematology (RLSE-022)

Duration 3 Hours

MM:100

Answer any five questions from question nos: 1 to 8. All Questions carry equal marks.

1. Who was the first person to discover the '**ufra disease**' of rice in East Bengal (Bangladesh)? Describe with the help of suitable diagrams the types of oesophagi that are found in plant parasitic nematodes. 2+18=20
2. Which scientist for the first time reported a cyst nematode from India ? Discuss the evolution of the stylet in nematodes belonging to Tylenchida. 2+ 18=20
3. List various methods used for management of root knot nematodes and describe any two methods. 6+14=20
4. (i) State five distinguishing features of plant parasitic nematodes of the genus *Rotylenchulus*. 6+14=20
(ii) Discuss with the help of available literature the molecular mechanism of resistance in plants against plant parasitic nematodes.
5. (i) Give the classification of plant parasitic nematodes upto the level of order on the basis of the classical systems of classification given by Chitwood in 1958. 12+8=20
(ii) Draw a neat diagram of Baermann's Funnel Technique used for isolation of nematodes from soil.
6. List and describe the attributes of an effective biological control agent of plant parasitic nematodes. 20
7. Write short notes on **any two of the following:** 10x2=20
 - (i) Different types of female reproductive organs in plant parasitic nematodes