

THEORY

Unit 1

Host-parasite Relationship and epidemiology

- 1.1 Types of hosts, types of relationships (Parasitism, Symbiosis, Commensalism)
- 1.2 Zoonosis Transmission, Prevention and control of diseases (Tuberculosis, typhoid)
- 1.3 Life history and pathogenicity of *Entamoeba histolytica*, *Plasmodium vivax*,
Trypanosoma gambiense,
- 1.4 Life history and pathogenicity of *Ancylostoma duodenale* and *Wuchereria bancrofti*

Unit 2

2.1 Insects of Economic Importance

Biology, Control and damage caused by *Helicoverpa armigera*, *Pyrilla perpusilla* and *Papilio demoleus*, *Callosobruchus chinensis*, *Sitophilus oryzae* and *Tribolium castaneum*

2.2 Insects of Medical Importance

Medical importance and control of *Pediculus humanus corporis*, *Anopheles*, *Culex*, *Aedes* *Xenopsylla cheopis*

2.2 Insect pests

Of crops, vegetables, oilseeds, coffee, tea

2.4 Insect pest management

Unit 3

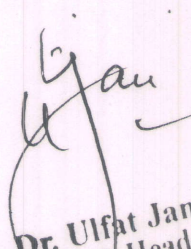
Cattle and poultry farming

- 3.1 Varieties of cattle
- 3.2 Principles and management of poultry breeding
- 3.3 Processing and preservation of eggs
- 3.4 Diseases of poultry

Unit 4

Fish Technology

- 4.1 Genetic improvements in aquaculture industry, Induced breeding
- 4.2 Prawn fisheries-culture
- 4.3 Freshwater fish culture
- 4.4 Pearl and Lac culture

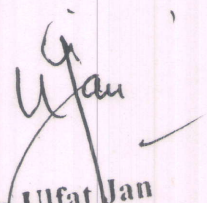

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APPLIED ZOOLOGY**PRACTICAL****(CREDITS 2)**

1. Study of *Plasmodium vivax*, *Entamoeba histolytica*, *Trypanosoma gambiense*, *Ancylostoma duodenale* and *Wuchereria bancrofti* and their life stages through permanent slides/photomicrographs or specimens.
2. Study of arthropod vectors associated with human diseases: *Pediculus*, *Culex*, *Anopheles*, *Aedes* and *Xenopsylla*.
3. Study of insect damage to different plant parts/stored grains through damaged products/photographs.
4. Identifying feature and economic importance of *Helicoverpa* (*Heliothis*) *armigera*, *Papilio demoleus*, *Pyrilla perpusilla*, *Callosobruchus chinensis*, *Sitophilus oryzae* and *Tribolium castaneum*
5. Maintenance of freshwater aquarium
6. Visit to poultry farm, animal breeding centre and hatcheries. Submission of visit report

SUGGESTED READINGS

- ☐ Park, K. (2007). *Preventive and Social Medicine*. XVI Edition. B.B Publishers.
- ☐ Arora, D. R and Arora, B. (2001). *Medical Parasitology*. II Edition. CBS Publications and Distributors.
- ☐ Kumar and Corton. *Pathological Basis of Diseases*.
- ☐ Atwal, A.S. (1986). *Agricultural Pests of India and South East Asia*, Kalyani Publishers.
- ☐ Dennis, H. (2009). *Agricultural Entomology*. Timber Press (OR).
- ☐ Hafez, E. S. E. (1962). *Reproduction in Farm Animals*. Lea & Fabiger Publisher
- ☐ Dunham R.A. (2004). *Aquaculture and Fisheries Biotechnology Genetic Approaches*. CABI publications, U.K.
- ☐ Pedigo, L.P. (2002). *Entomology and Pest Management*, Prentice Hall. CBCS Undergraduate Program in Zoology


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