



68

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**RAJARATA UNIVERSITY OF SRI LANKA  
FACULTY OF APPLIED SCIENCES**

**B.Sc. (Special) Degree in Applied Biology  
Fourth Year – Semester I Examination – October/November 2017**

**ZOO 4309 - FISH HEALTH MANAGEMENT**

**Time: Three (03) hours**

**Answer any six (06) of the following questions.**

1. *Centrocestus* sp. has become an etiological agent for the fish gill destruction and causes economic loss in the aquaculture industry in Sri Lanka.  
Describe the life cycle of this trematode parasite and its control measures. **(100 marks)**
2. a) State the different types of fish vaccines. **(20 marks)**  
b) Why is it important to use vaccination in aquaculture? **(10 marks)**  
c) Discuss briefly the methods of fish vaccine administration, indicating their advantages and disadvantages. **(70 marks)**
3. Write short notes on the following;  
a) stress factors causing fish diseases  
b) hole in the head disease  
c) common warning signs of fish diseases  
d) hemorrhagic septicemia. **(25 marks each)**
4. Describe briefly five (05) fish born zoonotic diseases. **(100 marks)**



5. The brooder fish and preparative brooder fish stocks were infected with fin rot disease in a goldfish farm. As a farmer, explain the quarantine and preventive measures that you would adopt to control this disease outbreak in the farm. (100 marks)
6. a) Mention the natural mechanisms present in fish that confer disease resistance. (25 marks)
- b) Describe the any **three (03)** of the following non-infectious diseases/conditions seen in fish.
- i. Hypoxia
  - ii. Nitrogenous waste toxicities
  - iii. Noxious algae
  - iv. Nutritional fish diseases (25 marks each)
7. a) What is meant by WSSV disease in fish and describe the symptoms of an infected host? (20 marks)
- b) As a farm manager of a WSSV infected farm, describe the quarantine procedure and preventive measures that you would follow to control spreading of WSSV disease to next stocking cycle. (80 marks)

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