

FACULTY OF FISHERIES AND MARINE SCIENCES & TECHNOLOGY

Academic Year 2022/2023

Bachelor of Science Honors in Fisheries and Marine Sciences Degree

Level III Semester II Examination - October/November 2024

FAQ 3213: Fish Pathology and Parasitology

Time: 2 hours

Answer any four (04) questions.

1)

(i) Summarize the infection routes of pathogens in fish.

(15 marks)

(ii) Elucidate the main consequences of health problems associated with fish on the aquaculture industry.

(20 marks)

(iii) Construct a comparative table on bacterial shrimp diseases focusing mainly on causative agent, host species and disease signs.

(25 marks)

(iv) "Cellular level changes observed in fish at varying degrees can be the indicators of diseases". Defend this statement by providing suitable examples.

(40 marks)

2) "The global salmon farming industry has faced significant challenges with the occurrence of several viral diseases creating negative impacts on fish health and industry economics". Justify the given statement providing necessary examples.

(100 marks)

3) (i) Define the terms (a) Obligate parasite, (b) Definitive host and (c) Indirect life cycle.

(10 marks)

(ii) Husbandry factors are vital in controlling disease outbreaks in fish farms. Explain.

(40 marks)

(ii) During a regular visit, fish farmer identified a group of fish with a dusty brown appearance on their dorsal surface. Summarize the information on possible causative agent, focusing on their life cycle, clinical signs and potential treatments.

(50 marks)



4)

- (i) Argue on the following statements giving appropriate evidence.
 - a) Giving treatments to diseased fish is better than protecting and preventing them from getting infected.
 - b) Some of the protective and preventive measures rely on maintaining the quality of water supply to fish.
 - c) Some treatments should be administered via species-specific approaches to get the maximum use of therapeutic.
 - d) For a pathogen to cause diseases in fish should be successful in each step of the infection cascade.

(50 marks)

- (ii) Compose an essay on "Approaches used for external treatments and important facts to be considered when giving external treatment to fish".

(50 marks)

5) Write short notes on the following.

- (i) Poly-opisthocotylean grazes on fish gill lamellae
- (ii) Host associated defensive approaches to interfere the pathway of pathogens in fish
- (iii) Immunization as an approach to fortify the fish against pathogens
- (iv) Taura syndrome in shrimps

(100 marks)

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