



FACULTY OF SCIENCE
ZOOLOGY DEPARTMENT



FINAL TERM EXAM. Jan 2025

شعبة علوم البحار/المستوى الرابع /أمراض أسماك (402ع ب)

Date: 5/1 /2025

Time: 3hours

Mark: 90

الامتحان في صفتين

Answer the Following Questions:

Question one: write about the following: (30 marks)

- a) Causes of high ammonia level in the water
- b) The causative agents and clinical signs of whirling disease.
- c) The causative agents, clinical signs and treatment of Columnaris disease.

Question two: What is the disease and the causative agents of the following symptoms (30 marks)

- 1- fish has white spots all over the external body surface, gills and fins
- 2- fish has dark coloration of the skin, uni-or bilateral exophthalmia and swelling of kidney.
- 3- Fish swim in a spiral way and hang in vertical position with its head at the water surface , has ascitis and uni-or bilateral exophthalmia
- 4- Fish has tissue necrosis at the base of caudal fin and vertebral column is exposed
- 5- Fish has erythema at the base of fins, mouth under lower jaw and around the anus and has ulcer on the body surface
- 6- Fish has cotton – like growth on the skin, gills or eyes of fish
- 7- Fish of necrotic gills, anorexia and marbling appearance of gills
- 8- Fish with vertebral column binding in various directions and the posterior part of the body is black

9- Fish is swimming in spiral manner and has ascites and exophthalmia

10- Fish has red dots on the skin , dark coloured body , pale gills , ascites and exophthalmia.

Question three: Define the following : (10 marks)

Septicemia - Anoxia - Disease - Methemoglobin - Virus

Question Four : complete or put (✓) or (X) marks and correct the following sentences (20 marks)

- 1- are viviparous fish parasites.
- 2- Temperate fish tolerate wide temperature ranges than tropical fish.
- 3- are known as intestine flukes.
- 4- MAS is appreviation of Mona Ali Samy .
- 5- Ammonia in water is oxidized into.....by.....
- 6- Most of pond fish disease occur in summer.
- 7- The life cycle of digenea is as follow
- 8- Fish are most sensitive to water temperature changes during spawning.
- 9-IPN is a parasitic fish disease.
- 10-Brown blood disease is caused by mercury toxicity.

Best wishes,

Prof. Dr. Mohamed H. Bahnasawy