



Assiut University

First Semester Examination
Subject: Microbial fish diseases
Level: 5th level
Course Code: ANM:504



Faculty of Veterinary Medicine
Department of Animal Medicine
Time allowed: 2 hours

Date: 24/1/2017

1] Re-write the sentences with the correct/best answer (1-point each)

1. is/are (a) major predisposing factor(s) for columnaris disease in fish.
 - a. Low water temperature
 - b. Skin or gill injury.
 - c. Nutritional deficiency
 - d. All the above
2. Vibriosis is more prevalent during the
 - a. winter
 - b. spring
 - c. summer
 - d. autumn
3. is / are zoonotic disease(s).
 - a. Vibriosis
 - b. MAS
 - c. Mycobacteriosis
 - d. All the above
4. Death of fish infected with branchiomycosis is due to
 - a. CNS affection
 - b. suffocation
 - c. liver damage
 - d. all the above
5. Rapid decrease in water temperature is one of the predisposing factors to
 - a. saprolegniasis
 - b. branchiomycosis
 - c. epizootic ulcerative syndrome
 - d. all the above
6. Epizootic ulcerative syndrome is caused by
 - a. *Branchiomyces demigrans*
 - b. *Fusarium solani*
 - c. *Aphanomyces piscicida*
 - d. *Dictyuchus* sp.
7. When affecting humans, piscine mycobacteriosis lesions are restricted to
 - a. liver and spleen
 - b. extremities
 - c. brain
 - d. abdominal lymph nodes
8. To diagnose ichthyophonosis, tissue samples must be re-examined in 5 hours as
 - a. hyphae start to germinate
 - b. fungus become bigger in size
 - c. fungus feeds on dead tissue
 - d. fungus moves deeper in tissue
9. *Edwardsiella ictaluri* is a pathogen of
 - a. fish and reptiles
 - b. Fish and amphibians
 - c. fish only
 - d. human beings
10. Fish affected with columnaris may die because of
 - a. brain damage
 - b. septicemia
 - c. liver failure
 - d. respiratory impairment
11. Confirming the SVCV cases is done by
 - a. reverse transcription-PCR
 - b. ELISA
 - c. cytopathic effects on cell lines
 - d. virus neutralization assay
12. "Sekiten-byo" refers to an infection with
 - a. *Edwardsiella tarda*
 - b. *Pseudomonas anguilliseptica*
 - c. *Aeromonas caviae*
 - d. *Vibrio anguillarum*
13. Contaminated feeding stuffs help in transmission of
 - a. saprolegniasis
 - b. branchiomycosis
 - c. epizootic ulcerative syndrome
 - d. ichthyophonosis
14. *Nocardia* spp. cause diseases in fish
 - a. septicemic
 - b. respiratory
 - c. chronic granulomatous
 - d. all the above
15. An emerging pathogen is a pathogen that
 - a. causes diseases in a new host
 - b. causes new clinical signs
 - c. can be isolated on new media
 - d. become resist to the traditional treatment

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انظر خلفه

2] Fill in the spaces

(1 point for each space)

1. Fish affected with Saprolegniasis may die because of and
2. Nutritional gill disease occurs as a result of dietary deficiency of vitamin
3. Branchiomycosis hyphae is seen microscopically as
4. Virulence mechanisms of *P. damsela* subsp. *piscicida* include and
5. is the causative agent of branchiomycosis and is restricted to branchial blood vessels.
6. *Vibrio* spp. are sensitive to antibiotic.
7. The main clinical signs of columnaris are and

3] Briefly, explain why

(2-point each)

1. *Streptococcus* sp. with M or M-like proteins on the cell wall can induce infections easily.
2. Infection by *Vibrio* spp. is called "saltwater furunculosis"
3. Immunoprophylaxis is the best way to prevent photobacteriosis
4. *Francisella noatunensis* is considered one of the most pathogenic bacteria for tilapia
5. Live attenuated vaccines cannot be used to protect fish from KOH

4] Briefly, write on:

(3-point each)

1. Pathogenic mechanisms and virulence factors of bacteria causing fish diseases.
2. Clinical signs of SVC in carps.
3. Predisposing factors for MAS.
4. Clinical signs of emphysematous putrefactive disease of catfish

5] For the following case, mention the suspected disease, causative agent, and its differential diagnosis.

(3 points)

Tilapia stock with average weight of 400g showed loss of appetite and mild respiratory manifestations. Internally, the spleen and head-kidneys showed granulomas with Gram negative bacteria.

Examination Committee: Staff member of fish diseases and management

Exam Coordinator: Dr. Ahmad Elkamel

ملحوظة: ميعاد الامتحان الشفهي: ٢٠١٧/١/٢٤ الساعة ١١ صباحاً - قسم طب الحيوان

المستشفى القديم: سكاشن ١٠٠٦٠٥٠٤٣٢٠١

المستشفى الجديد: سكاشن ٩٠٨٠٧

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