



1-Write short notes on:

[16 Marks]

- 1) Motile Aeromonas septicemia clinical signs.
- 2) Branchiomyosis clinical picture.
- 3) Streptococcal Septicaemia P/M lesions.
- 4) Role of fish specific immunity in fish diseases control.

2-Complete the following:

[9 Marks]

- 1) First line of fish defense includes 1-.....2-.....
- 2) Vibriosis disease characterized clinically by 1-.....2-.....
- 3) disease is a Self-perpetuating infection disease caused by
- 4) Case history suggests Saprolegniasis disease include 1-.....2-.....
- 5) Furunculosis control measures include 1-.....2-.....

3-Write short notes on the following:

[each 5 degree]

- 1)Life cycle of lernaeasis.
- 2)Golden dust disease.
- 3)Henneguyasis.
- 4) Life cycle of Schistosomiasis.
- 5)Diagnosis of Enterohepatorenal syndrome.

WITH OUR BEST WISHES



انتاج اسماك الزينة
عبدالله



Faculty of Aquatic and Fisheries Sciences

Subject: Ornamental fish production (2019-2020)

Final-term Exam

Time allowed: 2 hours

Answer the following questions:

- 1- A. Mention the importance of ornamental fishes? (12 degrees)
B. Define the following terms:
Mop – Egg Scatters - Livebearers - Plecostomus
- 2 – A. Why should we keep ornamental fishes?
B. Write short notes on artificial foods of ornamental fishes? (14 degrees)
C. How to differentiate between male and female ornamental fish of the same species?
- 3– A. Discuss the factors causing natural Hatchery and Spawning? (14 degrees)
B. Find the odd word out and correct the following sentences:
1) Size of an aquarium is designed in such a way that depth will be twice as long as its length and height.
2) Goldfish-First ornamental fish to be kept, its bred in tropical waters.
3) Fighting fish is one of Egg buriers.
4) We must be placing each one male Koi Fish individual in the aquarium.
5) Angel fish need to high PH degree.
6) Molly and guppy are of Ovoviviparous.
- 4 –A. Live foods do still have a number a specific uses in fish keeping. Discuss. (10 degrees)
B. Complete the following sentences:
1- Filters are of three types:
2- The fry of Discus fish swimming near of the parents for
3- Sodium thio sulphate is used to.....
4- Arowana fish are
5-that is kept as pets in confined spaces of an aquarium or a garden pool with the purpose of enjoying their beauty for fun and fancy.

Good Luck



Q. I. (25 mark)

A. Complete the following sentences:

(10 marks, 2 for each point)

- 1- is number of undivided dorsal fin rays in minor carp collected from natural sources.
- 2- is process by which mature spermatids are liberated into the lumen as spermatozoa.
- 3- Ovaprim is composed of and
- 4- is the feeding rate of catfish broodstock.
- 5- is the ideal temperature for breeding of grass carp.

B. Compare between each of the following:

(10 marks, 5 for each point)

- 1- Dry and wet bundh (site of spawning).
- 2- Yolk sac absorption in tilapia and Pangasius and its effect on fry survival.

C. Explain the natural breeding of finfish with diagram only (5 marks)

Q. II. (25 mark)

A. Answer the following with (V) or (x):

(10 marks, 2 for each point)

- 1- Floating hapa provides better water exchange.
- 2- Shooting net used for collection of fry from natural source.
- 3- Acetone is used for preservation of pituitary gland in room temperature.
- 4- Sex separation in common carp reduces the quality of broodstock.
- 5- Red margin caudal fin of male tilapia indicate sexual inactivity.

B. Please, read the following sentences and answer the questions: (15 marks)

- 1- You are admitted to visit a common carp hatchery. The mean initial weight of the females before breeding was 670g and after spawning was 585g. Please calculate the mean number of eggs produced by each female.
- 2- You are admitted to visit tilapia hatchery. The owner would like to formulate a 80 kg ration for production of monosex fry. Please calculate the following:
 - The amount of MT?
 - The volume of ethanol?

ALL THE BEST

Radi A. Mohamed
Radi A. Mohamed

**Course: Food Safety Enhancement Program/
Hazard Analysis Critical Control Point**
Level: 4 Sp. Fish Processing and Biotechnology
Allowed time: 2 hour Date: 16 / 1 / 2020



جامعة كفر الشيخ
كلية علوم الثروة السمكية و المصايد

Final Exam

Answer the following questions

First Question: (10 marks)

- A- Discuss briefly the four main controls to reduce the risk of hazards in food
- B- Illustrate, in points, the HACCP principals AND the suggested prerequisite programs that could be required for the HACCP plan?

Second Question: (10 marks)

What are the different types of hazards that could be found in food? Mention some examples for each of them.

Third Question: (15 marks)

- A- Discuss in detail the transmission, symptoms and control measures of TWO infective food borne bacterial pathogens.
- B- Exemplify (in a table) the types, causative agent and symptoms of marine biotoxins, which could be found in the seafood.

Forth Question: (15 marks)

- A. What are the potential procedures and application protocols for handling plant materials for usage as food preservatives? Illustrate them with a schematic diagram.
- B. For the usage of a natural substance as food antimicrobial agent, there are some considerations and requirements to be checked. What are they?

Good luck and best wishes

Prof. Ahmed A. Tayel

Course: Food Inspection Techniques
Level: 4 Sp. Fish processing & Biotechnology
Allowed time: 2 hour Date: 13 / 1 / 2020
First semester 2019/2020
Final Exam



Answer the following questions

First Question: (10 marks)

In a walk-through inspection, mention in points the general checkpoints which you should notice through:

- 1) Employees and staff assessment
- 2) Facility assessment

Second Question: (15 marks)

- A. Illustrate in brief the general components and considerations of the prerequisite plan.
- B- What are the essential required areas of knowledge and skill for the food inspector?

Third Question: (10 marks)

Illustrate with a diagram the main procedures and considerations involved in conducting inspections of food production facilities

Forth Question: (15 marks)

- A- Discuss briefly the most common inspection Techniques and Equipment.
- B- What are the main types of food inspection? Specify their definitions and the differences between them.

Good luck and best wishes

Prof. Ahmed A. Tayel



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المستور الرابع

Q. I. (20 mark)

Q.I-A- Answer the following with (✓) or (x): (10 marks, 2 for each point)

- 1- Shrimp survival rate is high in Japanese system.
- 2- Thelycum is present between pereopods IV & V in male shrimp.
- 3- Artemia should be a principle constituent of Nauplius feed.
- 4- Crabs female brooder should be identified after breeding.
- 5- MSH stimulates development of gonads in crustaceans.

Q.I-B- Compare between each of the following: (10 marks, 5 for each point)

- 1- Post transportation management of healthy shrimp and shrimp show abnormal pigmentation.
- 2- Inactive and mature gonads of *P. fucata*.

Q. II. (30 mark)

Q.II-A- Complete the following sentences: (10 marks, 2 for each point)

- 1- The color of eggs in female crab just before hatching is.....
- 2- Successful mating in lobster is indicated by presence of
- 3- Adult prawns should be treated with formalin dip after transportation in a dose rate.....
- 4- The acceptable salinity range of oyster is ranged from to
- 5- Breeding season of mussels in

Q.II-B- Write short notes on the following (10 marks, 5 for each point)

- 1- Seasoning of spat collectors in clams.
- 2- Maturation of crustacean's tests and its feedback mechanism (Diagram only).

Q.II-C- Please, read the following and answers the question: (10 marks)

Identification of larval stages and their morphological features is very important in shrimp production. How can you differentiate between nauplius, mysis and post larvae from their swimming behaviour?

All the best

R. A. Mohamed
Radi A. Mohamed



Q. I. (30 mark)

A. Complete the following sentences: (10 marks, 2 for each point)

- 1-is an endemic disease has more incidence cases.
- 2-..... is managing of risks associated with health of human, animal, plant and environment hygiene.
- 3-is the dose of hypochlorite solution used for aquatic animal tank disinfection.
- 4- is proportion of infection spreading.
- 5- is the invasion of aquatic animal body by parasite.

B. Compare between each of the following: (10 marks, 5 for each point)

- 1- Period of quarantine in low and high risk quarantine.
- 2- Validity period for health certificate before and after exportation of consignment.

C. Explain the entrance to the quarantine facility in high risk quarantine with diagram only (10 marks)

Q. II. (20 mark)

A. Answer the following with (✓) or (x): (10 marks, 2 for each point)

1. Wild aquatic species required low risk quarantine during shipment.
2. Wastewater is treated by heating at 80 °C for 30 minutes.
3. In high risk quarantine, footbath disinfection is done before exchange of outer cloths.
4. Records should be kept for all shipments for at least 36 months.
- 5- Periodical internal audit is performed every 6 months in low risk quarantine.

B. Please, explain your decision in the following quarantine cases: (10 marks)

- 1- Untreated fish for the second trial of treatment in low risk quarantine.
- 2- Detaching the consignments away from the container during transit.

ALL THE BEST

R. A. Mohamed
Radi A. Mohamed