

الفترات، لنا عليه

Kafrelsheikh University
Faculty of Fishers and
aquaculture sciences
Aquaculture Division


Final exam
2019/2020

3rd level
Time: 2 h
50 marks

Subject: Climate changes & Fish Adaptation

Exam committee: prof. Dr. M. Abo Waly, Prof. Dr. A. El-Henawy and Dr. F. Moghanm

Answer the following questions:

First Question: (10 marks) Put (T) if sentence is correct or (F) if it false:

1. Destruction of rainforests and collapse is a negative impact of climate change in the environment.
2. Fisheries and aquaculture are one of the most widely traded and exported food products for many developing countries. They account for at least 15 percent of animal protein for more than 4 billion people, most in developing countries
3. Climate change impact on production ecology in production and yield.
4. Autonomous adaptation in fisheries may be changing the timing or locations of fishing as species arrive earlier/later or shift to new areas.
5. Common in climate change is competition between sectors for water resources, for example, between agriculture, domestic use and other sectors such as aquaculture.
6. Maladaptation is a result from adaptation activities, that are not planned or implemented properly.
7. The concentration of methane increased twice the amount of concentration before the industrial revolution.
8. The ozone layer is about 3mm in thickness and located 25 to 35 km from the earth's surface and is considered a protective shield for living organisms on Earth.
9. Blue carbon refers to carbon that is sequestered in coastal vegetation systems such as mangrove forests, sea grass beds and rainforests.
10. Improving fuel efficiency by switching to more efficient gear types or vessels, switching to sails or changing fishing practices would increase emissions from fishing activities.

Second question (5 marks): Compare between:

A) Adaptation & mitigation (3 marks) b) El-Neno & Spatial planning (2 marks)

Third question: (5× 3 = 15 marks)

1. Define climate change, illustrate the causes of it and explained its impacts on the environment?
2. Explained the impacts of climate change on fisheries and aquaculture?
3. How fisheries and aquaculture contribution on global greenhouse gas emission?
4. Explained role of Mangroves and its benefits on Fisheries?
5. Write in point about the related phenomena to global warming and expected global warming?

Fourth question: (5× 4 = 20 marks) Explain the following:-

1. The Remote Sensing Process
2. Image Analysis Scattering
3. Water reservoirs
4. NOAA AVHRR Satellite and climate change
5. General applications of RS

With best wishes



تلم زراية الاسمان

KAFRELSHEIKH UNIVERSITY
FACULTY OF AQUATIC AND
FISHERIES SCIENCES
Course Name: *Fish Culture Systems*
Level: The Third Year of B.Sc.
(Aquaculture Program)



جامعة كفر الشيخ
كلية علوم الثروة السمكية
والمصايد

Date: 15th January, 2020
Allowed Time: 2 hours

Final Exam of the Academic Year: 2019-2020
Fish Culture Systems

Answer the following questions: (50 Degrees)

1- The First Question: (15 Degrees)

1. Write about types of aquaculture classification systems and list three of them in detail. (5.0 D)
2. What criteria should you take into account when selecting a fish species for aquaculture? (5.0 D)
3. Write the English Name of Candidate Aquatic organisms to play an important role in the future of marine aquaculture in Egypt. (3.0 D)
4. The differences between Sustainable and Traditional Aquaculture. (2.0 D)

2. The Second Question: (18 Degrees)

- 1- Write in brief about Soil Quality Standards and Water Quality Standards? (4.0 D)
- 2- Increasing artificial aeration will improve soil quality. How? (3.0 D)
- 3- How to reduce the concentration of ammonia in fish pond in professional ways? (5.0 D)
- 4- What are the main sources of ammonia in fish ponds? (3.0 D)
- 5- How to calculate the daily requirements of oxygen in fish ponds. (3.0 D)

3. The Third Question: (17 Degrees)

Recirculating aquaculture system (RAS) technology is very important for sustainability in Aquaculture. Based on the previous fact, write Short notes about:

1. Draw or write about the Required Units within RAS System. (4.0 D)
2. Factors affecting the efficiency of biological filtration. (4.0 D)
3. Advantages of UV sterilization & Dis-Advantages of Ozone. (5.0 D)
4. Draw or write about the relationship between feed and all of oxygen, ammonia, alkalinity, solid waste, & CO₂? (4.0 D)

With my best wishes,
Dr. Mohamed Abdel-Rahim

Kafrelsheikh University
Faculty of aquatic and fisheries science

إسماعيل



B.Sc. (Final Semester – I) Examination, 2019/2020

Environmental chemistry

Day: Wednesday, 15/01/2020

Time: 120 minutes

Max. Markers: 50

Dr. Mohamed A. S. Abdelrazek, Dr. Tamer Ismael and Prof. Dr. Ahmed A. Abouzeid

Answer the Following Questions in Short:

1. Originally, the concept of environmental chemistry focused on, what are the points that focused on?
2. Define the following scientific expression:
(Mineralized – Bioaccumulation – Transformations – Metabolic Processes – Xenobiotic - Brackish/Saline water - Dissolved oxygen - A toxicant - A toxin - A poison)
3. Several individual or combined processes contribute to the presence of different species that affect the composition and properties of natural waters. Mention including examples?
4. Explain the biologically mediated processes and its Effects?
5. What are the major polluters in industrialized countries?
6. Define biodegradation of chemical pollutants? And explain in points, How does it happen?
7. What is Green Chemistry? And explain in points, How does it happen?
8. Explain the effect of the difference of ultraviolet radiation on the ozone reactions?

Best Wishes

Kafrelsheikh University, Institute of Nanoscience and Nanotechnology
Faculty of fisheries and aquaculture science Course of Nanotechnology
Applications

The Final Exam 2019/2020

Time of exam: 2 hours.

Q 1: Write simple definition for all of these following parts ?

1-Electrospun membranes. 2-Nano-absorbents. 3-Nano-catalysts. 4- Scaffold. 5- Hemolysin.

Q 2: Briefly write comparison between the below scientific words ?

1-Furunculosis and Fucoidan. 2- Food processing and Food packing. 3- Autophagy and Apoptosis. 4- Fenton's reaction and Photo-catalyst's reaction.

Q 3: Choose the correct answer for the following sentences?

Q3.1: The food packing process can be performed successfully after

1.Obtaining food safety and biosecurity sheet. 2. Non measurement for toxicity. 3. Non- processing for any food packing. 4.Neither of all.

Q3.2: Fucoidan doped gold nanoparticles caused

1-Inhibition for the growth of *Aeromonas hydrophila*. 2-Improvement for the growth of *Tilapia*. 3-Both of all. 4- Neither of all.

Q3.3: The infection of *Aeromonas hydrophila* causes.....

1-Erythrodermatitis. 2- Ocular non ulceration. 3- Nasal ulceration. 4-Neither of all

Q3.4: Carbon nanotubes can be used as 1-Nano-adsorbent materials. 2-Nano-membrane materials. 3-Nano-modified materials. 4- Both of all.

Q 4: Correct the false and then write explanation for all of the below sentences?

Q4.1: In the final solution of nano membrane materials, the pollutants will be precipitated in filtrated solution. **Q4.2:** Single carbon nanotubes have wide applications. **Q4.3:** There are no any factors affecting the adsorption process. **Q4.4:** Nanotechnology leads to decrease surface area of reaction.

Q5. Write simple description about nanotechnology and its characterizations?

Good Luck

- 12- Pancreatic digestive enzymes are produced in quantity relatively to the larval weight.
- 13- Trypsin activity is highly regulated by the
- 14- Maximal capacity of lipase synthesis was reached for% triglycerides in diet.
- 15- Amino acid requirements of fish larvae are for determined.
- 16- Pelleted diets are for most marine fish larvae.
- 17- In marine fish larvae, the vitamins studied being vitamins
- 18- The most important live feed for marine fish larvae are
- 19- Rotifers sizes vary depending on the length of the
- 20- Artemia represents the phase of feeding the larvae after feeding by

Fourth question: Explained by only drawing with writing data (5 marks).

- A- Larval Feeding system?
- B- Changes in intestinal enzymatic activities during sea bass larvae development?

With our best wishes
Prof. Dr. El-Sayed B. Belal
Prof. Dr. Malik M. Khalafalla

Final answer exam during academic year 2019/2020

Please answer the following questions: (50 marks).

First question: Put (✓) in the front of the correct statement and (X) in front of the incorrect one. (10 marks):

- 1- *Chaetoceros* spp. was used as food in aquaculture ().
- 2- *Anabaena* spp. produce algal toxins ().
- 3- The most important parameters regulating algal growth are nutrient, light, pH, salinity and temperature ().
- 4- The disadvantages of the continuous system are its relatively high cost and complexity ().
- 5- Photobioreactors can be defined as closed culture systems for phototrophs ().
- 6- Algal culture techniques are indoor, outdoor, continuous and batch ().
- 7- Protein concentration was used to determine algal biomass ().
- 8- Filtration is a basic approach to algal biomass recovery ().
- 9- Roller, spray and freeze driers have been widely used in drying of *Dunaliella* sp. ().
- 10- Wastewater remediation by microalgae is an ecological process without any secondary pollution and the biomass produced is reused ().

❖ Second question : Explain the answer by drawing (15 marks).

- 1- Growth phases of micro-algae cultures?
- 2- Flow diagram of purification steps of single cell algae?
- 3- Bioencapsulation of live feeds?

3- Third question: Complete the following sentences (20 marks).

- 1- Predation of eggs and larvae is higher than for
- 2- Skeletal deformities happen mainly infish.
- 3- Abnormal temperatures during early ontogeny → sensitivity to
- 4- Young larvae require high energy, around KJ/kg of diet.
- 5- High prevalence of skeletal deformities was observed in sea bass fed ...% EPA+DHA
- 6- Aeffect of EPA on flat fish pigmentation has been reported.
- 7- Phospholipid synthesis in fish larvae is tooto meet larvae requirements
- 8- Effects of vitaminhave been described firstly in larval vitamins requirements.
- 9- The optimal level of vitamin A was determined at mg all-trans retinol/kg diet dry matter.
- 10- The is a target organ of vitamin (D3).
- 11- Theis a highly efficient organ for degrading complex proteins.

Kafr El-Sheikh University
Faculty of Aquatic and Fisheries Sciences
Subject: Fishing Gear Technology
Aquaculture Department
Level : 3 , Date: 29\12\2019



Time allowed: 2 hours

Final exam during academic year 2019 – 2020

Exam board

Answer the following questions : (50 marks)

1- A-Define the following terms (20 marks)

- | | | |
|--------------|----------------------|-------------|
| 1)- Fishing | 2)- Half power angle | 3)- Tex |
| 4)- Mesh bar | 5)- Bycatch | 6)- Chuming |

B- Write short notes on FADs .

2- A- Explain how tuna fish can be caught by pole and line fishing method.

B- Arrange the following hook sizes in a descending order

15 , 20 , 19/0 , 9/0 , 5 , 5/0 , 10 , 2 , and 22 (15 marks)

3- Match between column "A" and its suitable sentence in column "B".

Column A

Column B

(15 marks)

- | | |
|-----------------|---|
| 1) Codend | 1) bottom fishing gears |
| 2) Basket traps | 2) long line construction unit |
| 3) Sinkers | 3) a vertical fish detection and depth device |
| 4) Sonar | 4) help open the trawl net wings horizontally |
| 5) Lambara net | 5) trammel end where fish are collected |
| 6) Basket | 6) may be used with hooks for fish optical attraction |
| 7) Light stick | 7) a horizontal fish detection device |
| 8) Trawl doors | 8) doesn't have purse wire |
| 9) Norzel line | 9) have negative buoyancy forces more than floats |
| 10) Snood wire | 10) corresponds the bunt in purse seine |
| | 11) preserve the hook from being cut due to fish bite |
| | 12) connects the netting with float & sinker ropes |

With my best wishes
Dr. El Azab Badr



لجنة الممتحنين: ا.د/ فتحية رضوان

ا.د/ محمود فواز

ا.م.د/ رشدي العدوي

أجب عن جميع الأسئلة التالية:
السؤال الأول:

إجمالي الدرجات (٥٠ درجة)
(١٧ درجة)

أ- في ضوء دراستك عرف 4P ، مبيناً مكوناته؟

ب- باستخدام تحليل SWOT وضح الأداء التسويقي لسوق الأسماك بميناء البرلس ويورصة الأسماك؟

ج- عرف التسويق، مع بيان كلاً من العناصر الأساسية والمداخل الرئيسية لدراسته ؟

السؤال الثاني:

(١٧ درجة)

أ- " يواجه الإنتاج السمكي العديد من التقلبات والأحداث غير المنظورة والتي تؤثر تأثيراً قوياً في إدارة المزارع السمكية"...إشرح هذه العبارة ، مبيناً هذه الأحداث والتقلبات ؟

ب- وضح المعايير الأساسية الخاصة بتحقيق الرضا الكامل للعملاء والمستهلكين لتطبيق نظام كفاء وفعال لعمليات التسويق الإلكتروني ثم وضح المنتجات التي يتم التعامل معها في التسويق الإلكتروني؟

ج- إذا كانت دالة الإيراد الكلي، ودالة التكاليف الكلية لمزرعة تعمل في سوق المنافسة الكاملة هي على التوالي :

$$TR = 8Q$$
$$TC = \frac{4}{6} Q^3 - 20Q^2 + 80Q + 6$$

المطلوب : ١- مستوى الإنتاج الذي يحقق أقصى ربح ؟

٢- أقصى ربح ؟

٣- السعر الذي تباع به الوحدة الواحدة من الإنتاج الذي يحقق أقصى ربح ؟

السؤال الثالث:

(١٦ درجة)

أ- تكلم عن حالات الطلب باستخدام مرونة الطلب السعرية، مع التوضيح بالرسم كامل البيانات ؟

ب- أذكر المفهوم وطريقة القياس والأهمية التطبيقية للأرقام القياسية السمكية؟

مع أطيب التمنيات بالنجاح والتفوق

لجنة الممتحنين

محمود فواز