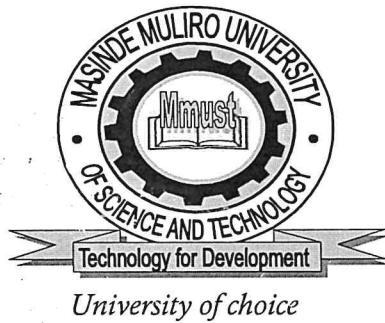


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**AAF 310**



**MASINDE MULIRO UNIVERSITY OF  
SCIENCE AND TECHNOLOGY  
(MMUST)  
SCHOOL OF AGRICULTURE, VETERINARY SCIENCES AND  
TECHNOLOGY (SAVET)**

**MAIN CAMPUS**

**UNIVERSITY EXAMINATIONS  
2023/2024 ACADEMIC YEAR**

**MAIN EXAMS  
OF  
BACHELOR OF SCIENCE IN FISHERIES AND AQUACULTURE**

**COURSE CODE: AAF 310**

**COURSE TITLE: FISH ANATOMY AND PHYSIOLOGY**

**DATE: 8.12.23**

**TIME: 8-10AM**

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**INSTRUCTIONS TO CANDIDATES**

This paper is divided into two sections, **A and B**. Answer ALL Questions in SECTION A and any Two in SECTION B

*MMUST observes ZERO tolerance to examination cheating*

*This Paper Consists of 2 Printed Pages. Please Turn Over*

**AAF 310**

**SECTION A: ANSWER ALL QUESTIONS (40 MARKS)**

Q1. Define the terms (4mks)

- i) Fish Anatomy
- ii) Fish Physiology
- iii) Chromatophores
- iv) Melanophores

Q2. Distinguish between sharks and bony fishes. (6mks)

Q3. Outline three main modifications of fins in fish (6mks)

Q4. Indicate the major positions of pelvic fins in fish (4mks)

Q5. Name the four types of caudal fins in fish (4mks)

Q6. a) State the main function of the following organs in fish: (2mks)

- (i) Swim bladder
- (ii) Gills
- (iii) Stomach
- (iv) Lateral line

b) What is meant by term digestive system in Fish? State the three organs of the digestive system and their function? (4mks)

Q7. Using an illustration explain

(a) single circulation in fish (4 mks)

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(b) Breathing in fish (4mks)

Q8. How do fish apply sense of taste? (2mks)

**SECTION B**

Q9. Fish can be classified based on their feeding habits. Discuss giving examples the different fish types and their feeding habits. (15mks)

Q10. Discuss giving examples the importance of Otoliths in fish. (15mks)

Q11. Discuss the role of the skin and colouration in fish (15mks)

Q12. Discuss the major anatomical differences among (15mks)

(i) Lamprey

(ii) Shark

(iii) bony fish

