



**RAJARATA UNIVERSITY OF SRI LANKA
FACULTY OF APPLIED SCIENCES**

**B.Sc. (General) Degree in Applied Sciences
Second Year - Semester I Examination – September/October 2019**

ZOO 2204 - FISH BIOLOGY

Time: Two (02) hours

Answer any FOUR (04) questions.

1. a) "The efficiency of swimming increases when the body of a fish becomes shorter".
Discuss the above statement using different undulatory movements with appropriate examples. **(80 marks)**
b) Explain how the aspect ratio of caudal fin determines the mode of life of a fish. **(20 marks)**
2. a) Describe the structure of gills of teleost fish. **(40 marks)**
b) Explain the mechanism of gill breathing in a teleost fish. **(30 marks)**
c) "Efficiency of gas exchange is comparatively higher in teleost fish than that of cartilaginous fish". Comment on the above statement. **(30 marks)**
3. a) Discuss the different types of reproductive methods exhibited by fish. **(35 marks)**
b) Describe the different mating systems exhibited by fish. **(25 marks)**
c) Write a concise account on sexual dimorphism in fish. **(40 marks)**
4. a) Explain how fish are adapted for dark and light vision. **(40 marks)**
b) Describe the structure of the ear of a fish and state its major functions. **(60 marks)**

5. Write short notes on the following.

- a) Main feeding adaptations of carnivorous fish.
- b) Differentiate between a skate and a ray.
- c) Factors affecting fish migration.
- d) Different types of fish teeth.

(25 marks each)

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**B.Sc. (General) Degree in Health Promotion
Second Year – Semester I Examination – September/October 2019**

HPT 2301- PSYCHOLOGY AND HUMAN BEHAVIOUR

Time: Three (03) hours

Answer ALL questions.

1. a) Describe the emergence of Bio-psychosocial model in the beginning of 20th century. **(50 marks)**
 b) Discuss the different domains of health psychology. **(50 marks)**

2. a) Explain the main elements of social influence that affect health and wellbeing of an individual. **(40 marks)**
 b) Discuss how cultural concepts affect health and illness. **(60 marks)**

3. a) List **three (03)** components of attitude. **(30 marks)**
 b) Explain in brief **five (05)** methods that could be used to measure attitude. **(40 marks)**
 c) Illustrate **three (03)** factors that influence the attitude of an individual. **(30 marks)**

4. a) Define health behavior of an individual. **(20 marks)**
 b) Discuss in brief behavioral immunogens and behavioral pathogens. **(30 marks)**
 c) Explain by mentioning the significant findings of ALAMEDA 7 longitudinal studies, the key factors that influence healthy living of an individual. **(50 marks)**

5. a) Describe the stages of "Trans-theoretical model" by Prochaska et al., 1994. (40 marks)
b) Explain how "Trans-theoretical model" can be applied to change the life style of an individual with high Body Mass Index (BMI). (60 marks)
6. a) Describe the Response-Based model of stress by Hans Selye (1976). (40 marks)
b) Explain in reference to General Adaptation Syndrome theory by Hans Selye, the physiological changes of a person who experienced long term stress. (60 marks)

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