



DAMIETTA UNIVERSITY
FACULTY OF SCIENCE
ZOOLOGY DEPARTMENT

FINAL TERM EXAM.

May 2023

علوم البحار البيولوجية

علم الاسماك وبيولوجيتها (208 ع ب)

Date: 7/ 6 / 2023

Time: 2 Hours

Mark: 90

الإمتحان في صفتين

Answer the following questions:

The first question: write about the following (30 marks)

- 1) osmoregulation in elasmobranches.
- 2) Reproduction in cartilaginous fishes.
- 3) Dangerous fish.

The second question: put (√) or (X) marks and correct the mistaken sentences (30 marks)

- 1) Fish are homeothermic animal.
- 2) Agnathostomata are hermaphrodite fish.
- 3) The taste buds of sharks are found on the tongue.
- 4) Gills of sharks are three in number and of opercular type.
- 5) The kidney of fresh water fish is more developed than marine one.
- 6) Lamprey and hagfish are parasite fish.
- 7) Pelvic fins in cartilaginous fishes are modified into legs
- 8) Sharks have closed swim bladder for buoyancy.
- 9) Caudal fin is the organ responsible for electroreception in sharks.
- 10) Fresh water teleost loses salt by active transport.
- 11) Tunas are known to concentrate calcium in their bodies.
- 12) Shark teeth are similar to human teeth in their consistency.
- 13) Bony fishes have six pairs of gills
- 14) Sharks are carnivores and scavengers.
- 15) Marine teleost use to drink more water than freshwater one.

The third question: what are the differences between the following (10 marks)

- 1) Osmoconformers and osmoregulators
- 2) Osmosis and Diffusion.
- 3) Physoclistous and physostomous.
- 4) Homeothermic and poikilothermic.
- 5) Anadromous and Catadromous fish

The fourth question: Complete the following (20 marks)

- 1) The fish which is called mosquito fish is
- 2) Sawfish are described as.....while scorpion fish are described as.....
- 3) Hagfish feed on....., therefore they are described as.....
- 4) When hagfish is disturbed
- 5) The fertilization in lamprey is.....while in sharks is
- 6) In marine teleosts, most of divalent ions are excreted by....., while monovalent ions are excreted through.....
- 7) Hagfish belong to class.....while lamprey belongs to class.....
- 8) To prevent dehydration , marine teleost are used to
- 9) The fish which is used for aquatic weed control is.....
- 10) The science which deals with the study of fish is called.....
- 11) The gill number in hag fish areand their types are.....
- 12) The heart chambers of lamprey are
- 13) Sharks solve the problem of buoyancy by.....,
- 14) In remora fish,.....is modified into.....
- 15) Fish in River Nile with ascites may be due to

Best wishes

Prof. Dr. M. Bahnasawy