



FISH DISEASES AND MANAGEMENT

I- Mark either correct or false:

1-Highly virulent strains of <i>Fl. columnaris</i> , resulted in extensive tissue damage, in gills particularly.	True	False
2-The peduncle disease progresses inwardly until the base of all fins	True	False
3- <i>Oreochromis niloticus</i> , showed white nodules on the gills, kidney, liver & spleen in pm lesions of EPDC.	True	False
4-The pathognomonic lesion of <i>Sanguinicola clarias</i> is linear hemorrhage in gills	True	False
5-Argulus has pre-oral stylet that not only cause local mechanical injuries but also release digestive enzymes giving rise to systemic	True	False
6-The prevention is the best method for control of crustacean diseases due to it is very difficult in treatment.	True	False
7- <i>Branchiomyces sanguinis</i> live inside the parenchymal tissue of gills	True	False
8- Aspergillosis is characterized by hemorrhagic ulcer	True	False
9- Pox disease decrease the marketable value of the fish due to its contagious nature	True	False
10- Gill damage occur in Dactylogyrosis due to protease enzyme production	True	False

II- MULTIPLE CHOICE QUESTIONS:

{2.5 Marks}

- 1- Transmission of columnaris disease occur at a water temperature above:
 - a) 10 °C
 - b) 15 °C
 - c) 20 °C
 - d) 8 °C
- 2- When the gills has been attacked, the necrotic process spread from the tips of gill lamellae toward the gill arch:
 - a) peduncle disease
 - b) columnaris disease
 - c) Streptococcosis
 - d) EPDC.
- 3- Necrosis progresses inwardly on the fins until reached the base of fins, except at the caudal fin, where invasion process may be continued, is characteristic of :
 - a) *Fl. Columnaris*
 - b) *Fl. Bronchiophylum*
 - c) *Ps. fluorescens*
 - d) *Fl. Psychrophilum*
- 4- Presence of white to gray sandy – like grains or spots on the gill capillaries is a sign of:
 - a) Columnaris disease.
 - b) Bacterial gill disease.

c) Peduncle disease.

d) Enteric septicemia of cat fish.

5- Outbreaks of bacterial gill disease occur at water temperature:

a) 8 - 10 °C

b) 10 - 15 °C

c) 19 - 25 °C

d) 12 - 18 °C

6- A cat fish has a small cutaneous lesions in the postero-lateral region, developed later into abscesses in the muscle & tail filled with gases, a sign of :

a) *Ed. Ictaluri*

b) *Ed. Tarda*

c) *Fl. Bronchiophilum*

d) *Fl. Psychrophilum*

7- *Oreochromis niloticus*, lost its pigmentation, abdominal dropsy & opaqueness of eyes is a characteristic sign of :

a) EPDC

b) Enteric septicemia of cat fish

c) Bacterial gill disease

d) Bacterial kidney disease

8- An open ulcer on the head, between the eyes of a fish, which is:

a) *O. reochromis niloticus*

b) *Mugil cephalus*

c) Cat fish

d) Common carp

9- Kidney of a fish with creamy white granulomatous abscesses which may extend deep in the parenchyma, a sign of:

a) Bacterial gill disease

b) Bacterial kidney disease.

c) Enteric septicemia of cat fish

d) EPDC

10- Cystic cavitation of body musculature, containing opaque serous fluids, a pm lesion of:

a) Bacterial kidney disease

b) Enteric septicemia of cat fish

c) Peduncle disease

d) Streptococcosis

11- The spleen of fish, enlarged with rounded edges & cherry coloration, a P. M. lesion of:

a) Bacterial kidney disease

b) EPDC

c) Streptococcosis

d) Peduncle disease

12- In marine fish an enteritis, pale liver & blood in peritoneal cavity are common P.M of:

a) Columnaris disease

b) Peduncle disease

c) Pop eye disease

d) Bacterial kidney disease

13- The *Argulus africans* parasites.....to salinity.

a) sensitive

b) resist up to 1.5%

c) resist up to 3.5%

d) very sensitive

14- The infective stage of *Lernaea cyprinacea* is:

151

a) 5th copipodial stage b) 1st copipodial stage

c) 2nd copipodial stage

d) 3th copipodial stage

15- The parasitic print of *Ergasilus mugilus* is:

- a) focal hemorrhage b) linear hemorrhage c) Marbling appearance d) diffuse hemorrhage
- 16- 5th copipodial stage have phenomena of phototaxis is present in:
- a) *Lernaea cyprinacea* b) *Ergasilus mugilus* c) *Argulus africanus* d) *Sanguinicola clarias*
- 17- The mechanically treatment by inserting sticks or egg-trap sticks present in.....
- a) *Lernaea cyprinacea* b) *Ergasilus mugilus* c) *Sanguinicola clarias* d) *Argulus africanus*
- 18- The mechanically treatment by clipping the fertilized female by scissors present in.....
- a) *Lernaea cyprinacea* b) *Ergasilus mugilus* c) *Sanguinicola clarias* d) *Argulus africanus*
- 19- The clinical signs in old fishes suffer from nephritis leading to ascities & exophthalmia (pop eye) due to infection with.....
- a) *Ergasilus mugilus* b) *Lernaea cyprinacea* c) *Sanguinicola clarias* d) *Argulus africanus*
- 20- Artificial feed are used and not depend on natural feed & oxygen level are predominant factors in fish culture.
- a) Extensive b) Intensive c) Super-intensive d) Semi-intensive
- 21- Sorting the different types of fish species during the harvesting time is
- a) advantage of monoculture b) disadvantage of monoculture c) disadvantage of polyculture d) advantage of polyculture
- 22- The pond has fish from hatching for a period 2-3 weeks until become fry 2-4 cm is
- a) rearing pond b) Quarantine pond c) nursing pond d) catch pond
- 23-can be seen moving rapidly around the surface of fish and swim away as seen as the fish is netted out for examination and heavy infestation cause mass mortalities especially in young fish due to osmo-regulatory failure and weight loss.
- a) *Lernaea cyprinacea* b) *Argulus africanus* c) *Ergasilus mugilus* d) heart worm parasites
- 24- The adult worms eggs and meracidium are present and obstruct the passage of blood and blocking it causing thrombosis, necrosis, congestion and give marbling appearance. This present in.....
- a) Lerniosis b) Ergasilosis c) Sanguinicoliasis d) heart worm disease
- 25- Fungi producing blister-like ulcer is
- a) *Candida albicans* b) *Scolecobasidium humicola* c) *Asperigillus flavus* d) *Saprolegnia parasitica*
- 26- The aetiological agent of winter pest disease can resist salinity up to

a) 1-2 mg/L

b) 2-8 mg/L

c) 8-10 mg/L

d) 1-6 mg/L

27- fungi is tissue specific.

a) *Branchiomyces sanguinis*

b) *Saprolegnia parasitica*

c) *Candida albicans*

d) *Scolecobasidium humicola*

28- Upnormal swimming standing position with head upward can be observed in.....

a) Phomamycesis

b) Branchiomycosis

c) Ichthiophoniasis

d) Scolecobasidiosis

29- Secondary zoospore of saprolegnia isin shape.

a) apple

b) bean

c) pear

d) human-kidney

30- Saprolegniosis can be caused by all next fungi except.....

a) *Dictyuchus*.

b) *Achlya polyandra*

c) *Aphanomyces* sp.

d) *Phomaherbarum* sp.

31-is one of the main death causes of fish in saprolegniosis disease.

a) Cholangioma

b) Urine retention

c) Osmoregulatory failure

d) Osmotic failure

32- Ration is the main source of infection if contaminated with spore of.....

a) *Ichthiophonus hoferi*

b) *Saprolegnia* sp.

c) *Candida albicans*

d) *Phomaherbarum* sp.

33- In Aphanomyces fungi, the spores are arranged in form of.....inside the sporangia.

a) clusters.

b) one row.

c) outside the wall of

d) evenly distributed.

hyphae.

34- Candidiomycosis pathognimonic lesion is ulcer.

a) blister-like.

b) hemorrhagic .

c) irregular.

d) button-like.

35- Red colored gills in branchiomycosis may be due toof blood vessels.

a) infarction

b) stenosis

c) thrombosis

d) necrosis

36- Quiscent cyst can enter abraded fish body through

a) inhalation

b) germination

c) Direct endospore

d) Ingestion

37- Respiratory manifestation could be observed in all next mycotic diseases except.....

a) Ichthiophoniasis

b) Branchiomycosis

c) Candidiomycosis

d) Saprolegniosis

38- Infectious haematopoietic necrosis virus inactivated at:

a) 60 °C

b) 80 °C

c) 100 °C

d) 20°C

39- IHNV prefer water temp. at:

a) 15-20 C°

b) 6-8°C

c) 20-30C°

d) 30-35C°

40- Incubation period of carp pox virus is:

a) 2 months

b) 15 days

c) 4 months

d) 6 months

41- Susceptible fish for pox disease:

a) Tilapia

b) Common carp

c) Car fish

d) Mugil

42- Cauliflower disease of eels can be treated using:

a) Quinine sulphate

b) CuSO₄

c) Aricyl disodium salt

d) KMnO₄

43- The papilloma in cauliflower disease of eels increased in the growth in:

- a) Spring b) Summer c) Winter d) Fall

44- The source of L.V.D virus is the.....

- a) Infected epithelial cells b) Infected blood c) Infected melt d) Infected serum

45- Lymphocysts cells that found in gut and other internal organs result from:

- a) Feeding on infected tissue b) Metastasis c) Leeches d) Copepoda

46- The 2nd I.M.H of Clinostomum tilapiae is:

- a) Copepoda b) Aquatic bird c) Fish d) Aquatic snail

47- The pathognomonic sign of yellow grub disease is:

- a) Plugged operculi b) Opened mouth c) Anemia d) Ascitis

48- The presence of Gyrodactylosis is a sign of:

- a) Poor water quality b) Good water quality c) High salts d) Decreased O₂

49- Quadricanthus parasitized on the gills of:

- a) Carp b) Tilapia c) Mugil d) Cat fish

50- Dactylogyrus appear opaque under the microscope due to the presence of:

- a) Adhesive glands b) Vitelline glands c) Embryos d) Hooks

{ 12.5 Marks }

III- WRITE FULL ACCOUNT ON:

1- The etiology, clinical signs and post-mortem lesions of streptococcosis.

2- Life cycle and pathogenesis of Ierneosis.

3- Primary causes of disease in saprolegniosis affection in fish.

4- Differentiate bet. *Diplostomum spathaceum* and *Diplostomum cutica*.

{ 10 Marks }

With best wishes...

Mad. B. Mahfouz
Prof. Dr. Nadia Bassiony Mahfouz