

أسئلة وأجوبة إمتحان مادة أوليات وطفيليات ٣٢٤ ح

(ورقة إمتحانية كاملة)

كلية: العلوم

قسم: علم الحيوان

المستوى: الرابع

الشعبة: ميكروبيولوجى وكيمياء

تاريخ الإمتحان: ٢٠١٧ / ١ / ٢١

استاذ المادة: د/ جيهان حسين لاشين

د/ داليا سعيد حمزة



Protozoa & Parasitology (324 Z)

I- Choose:

(12Marks)

1. without digestive system.
a) *Taenia solium* b) *Ancylostoma* c) *Schistosoma* d) *Ascaris*
2. A phylum which has a Pseudocoelom :
a) Platyhelminthes b) Nematoda c) Porifera d) Protozoa
3. Scotch adhesive tape is used in diagnosis of :
a) *Enterobius vermicularis* b) *Schistosoma* c) *Ancylostoma* d) *Ascaris*
4. *Potamon crabs* is the 2nd intermediate host of
a) *Fasciola* b) *Schistosoma* c) *Paragonimus westermani* d) *Ascaris*
5. The mode of infection of *Schistosoma* is.....
a) Direct contact b) Swallowing c) Through skin penetration
6. Which of the following is Round worm?
a) *Fasciola* b) *Ascaris* c) *Schistosoma* d) *Paragonimus westermani*
7. The intermediate host of *Schistosoma mansoni* is
a) *Bulinus truncatus*. b) *Biomphalaria alexandrina* c) *Pirenella conica*.
8. Hooks & suckers on the cestode head are used for:
a) Sucking blood b) Reproduction b) Defense d) Attaching to the host
9. Secretion of Mehlis's gland helps in.....
a) Respiration b) Digestion c) Movement of eggs into the uterus
10. is a Hook worm.
a) *Schistosoma* b) *Ancylostoma* c) *Taenia* d) *Heterophyes*
11. *Schistosoma* infect..... before it can infect humans
a) Cattle b) Snail c) Round worm d) Mosquito
12. Cattle is the intermediate host of.....
a) *Schistosoma* b) *Taenia saginata* c) *Ascaris* d) *Heterophyes*

13. does not need an intermediate host.

- a) *Taenia solium* b) *Hymenolepis nana* c) *Schistosoma* d) *Fasciola*

14. Furcocercous is a Cercaria of

- a) *Schistosoma* b) *Paragonimus westermani* c) *Taenia*

15. Which of the following is Blood fluke ?

- a) *Schistosoma* b) *Paragonimus westermani* c) *Fasciola*

16. Laurer's canal

- a) Acts as copulation canal b) activates spermatozoa c) a & b

17. The following worms live in small intestine except:

- a) *Taenia* b) *Fasciola* c) *Ascaris* d) *Heterophyes*

18. Diagnostic stage of is egg containing hexacanth embryo.

- a) *Schistosoma* b) *Fasciola* c) *Taenia* d) *Ancylostoma*

19. Which of the following have only three proglottides?

- a) *Echinococcus* b) *Hymenolepis* c) *Taenia solium* d) *Taenia saginata*

20. *Ascaris* belongs to Phylum

- a) Nematoda b) Protozoa c) Platyhelminthes d) None of these

21. All the following are belong to Class Cestoda except.....

- a) *Echinococcus* b) *Heterophyes* c) *Hymenolepis nana* d) *Taenia*

22. The body wall of *Schistosoma* characterized by presence of....

- a) Spines b) Rhabdites c) Tubercles d) None of these

23. *Lymnaea spp.* are the intermediate host of:

- a) *Schistosoma* b) *Fasciola* c) *Taenia* d) *Heterophyes*

24. Microcercous is a Cercaria of

- a) *Schistosoma* b) *Paragonimus* c) *Heterophyes* d) *Taenia*

II - Write on :

(12Marks)

(a) -Life cycle of *Heterophyes heterophyes*.

(b) -The final host & the infective stage of: *Fasciola* , *Ascaris* & *Echinococcus granulosus*

(c) - Life cycle of *Taenia saginata*.

Protozoa

I- Choose the correct answer:

(12 Mark)

1. Which of the following describes the function of food vacuole in Protozoa?
 - a. Site of food digestion.
 - b. Site for photosynthesis.
 - c. Maintains osmotic balance by continuous water expulsion.
 - d. All of the above.
2. _____ is a parasite of cattle and in pregnant cows it may lead to abortion.
 - a. *Trichomonas foetus*
 - b. *T. vaginalis*
 - c. *T. gallinae*
 - d. *T. hominis*
3. _____ resists unfavorable environmental condition.
 - a. Food vacuole.
 - b. Contractile vacuole.
 - c. Cyst.
 - d. Nucleus
4. The most common method of asexual reproduction in the Protozoa is by
 - a. conjugation.
 - b. autogamy.
 - c. binary fission.
 - d. syngamy.
5. _____ means feeding on other organisms.
 - a. Saprozoic nutrition.
 - b. Holophytic nutrition.
 - c. Holozoic nutrition.
6. Sleeping sickness in human is caused by _____.
 - a. *Trypanosoma*.
 - b. *Amoeba*.
 - c. *Plasmodium*.
 - d. *Ascaris*.
7. All of the following moves by flagellum EXCEPT _____.
 - a. *Amoeba*.
 - b. *Euglena*.
 - c. *Giardia*.
 - d. *Trichomonas*.
8. Which of the following is characteristic of protozoa?
 - a. multicellular
 - b. unicellular
 - c. moves by tentacles
 - d. sized from 5 to 12 cm
9. Mastigophora are commonly called _____.
 - a. ciliates.
 - b. flagellates.
 - c. amoeboids.
 - d. sporozoans.
10. Fever malaria in human is caused by _____.
 - a. *Trypanosoma*.
 - b. *Amoeba*.
 - c. *Plasmodium*.
 - d. *Ascaris*.
11. Contractile vacuole present in _____.
 - a. *Amoeba*
 - b. *Entamoeba coli*
 - c. *Entamoeba histolytica*
 - d. all of these.
12. Sarcodina contains _____.
 - a. *Plasmodium*.
 - b. *Entamoeba*.
 - c. *Euglena*.
 - d. *Opalina*.
13. _____ is a parasite of mouth, pharynx, esophagus and crop of birds.
 - a. *Trichomonas foetus*
 - b. *T. vaginalis*
 - c. *T. gallinae*
 - d. *T. hominis*
14. *Entamoeba histolytica* is found in human _____.
 - a. mouth cavity
 - b. stomach
 - c. large intestine
 - d. rectum

15. *Plasmodium* belongs to _____.
- a. Sporozoa b. Sarcomastigophora c. Ciliophora d. Cnidospora
16. In *Giardia*, human infection can result from _____.
- a. ingestion of material contaminated with infected cat feces.
 b. *Anopheles* bites.
 c. Tsetse fly bites
 d. swallowing cysts of *Giardia* with contaminated food or drinking water.
17. _____ has many monomorphic nuclei in its cytoplasm.
- a. *Euglena* b. *Opalina* c. *Tricomonas* d. *Amoeba*
18. The intermediate host of *Trypanosoma* is _____.
- a. Tsetse fly. b. *Anopheles*. c. *Lymnaea* d. *Bulinus*.
19. *Giardia* can reproduce by _____.
- a. budding. b. autogamy. c. conjugation. d. binary fission.
20. Metacyclic form is the infective stage of _____.
- a. *Opalina* b. *Euglena* c. *Trypanosoma* d. *Giardia*
21. _____ is the infective stage of *Entamoeba histolytica*.
- a. Egg b. Cyst c. Cercaria d. Metacercaria
22. *Opalina* lives as commensal in the large intestine of _____.
- a. man b. cow c. frogs d. cat
23. Zoomastigophorea contains _____.
- a. *Opalina* b. *Euglena* c. *Amoeba* d. *Giardia*
24. The infective stage of *Plazmodium* to man is _____.
- a. egg b. cyst c. cercaria d. sporozoites

II- Write about "three only" from the following:

(12 Mark)

1. Life cycle of *Sarcocystis*.
2. Life cycle of *Trypanosoma*.
3. Types of reproduction in Protozoa.
4. General characters of Sarcomastigophora.

With best wishes

د/ جيهان لاشين
 د/ داليا سعيد حمزة
 21/1/2017

Answers
Parasitology

(12Marks)

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a) Echinococcus b) Hymenolepis c) Taenia solium d) Taenia saginata
20. Ascaris belongs to Phylum
a) Nematoda b) Protozoa c) Platyhelminthes d) None of these

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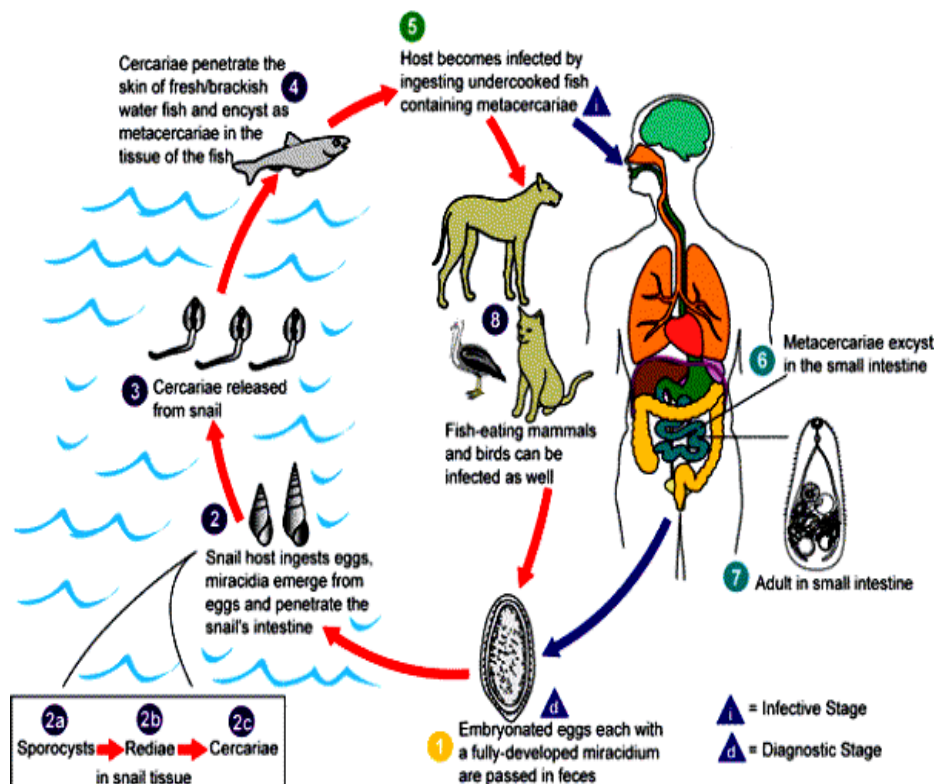
- a) *Schistosoma* b) *Paragonimus* c) *Heterophyes* d) *Taenia*

II - Write on :

(12Marks)

(a) -Life cycle of *Heterophyes heterophyes*.

Heterophyes heterophyes. This is the smallest digenean. It is an intestinal parasite of man, cat, dog, fox & other fish-eating mammals, causing heterophyiasis which is common around the northern lakes of Egypt. Eggs path out with the faeces from the primary host. Each contains a fully developed miracidium which hatches after being ingested by the brackish water snail *Pirenella conica* (1st intermediate host). In the body of the latter, the sporocyst & one or two redial generations are developed. From the rediae emerge lophocercous cercariae which complete their development in the second intermediate host, usually a freshwater fish {mainly *Mugil* (Bouri), *Oreochromis* (*Bolti*) & *Gambusia*}. The cercaria penetrates the skin of the fish & encysts in the muscles & other tissues. On eating such fishes not properly cooked or salted, the final host becomes infected with the metacercaria. The cyst dissolves in the intestine & the young fluke is liberated & grows to the adult stage.



(b) -The final host & the infective stage of : *Fasciola* , *Ascaris* & *Echinococcus granulosus*

Fasciola

- **Mode of infection:**by eating contaminated vegetables with metacercaria

-**The infective stage:**Encysted metacercaria in vegetables.

Ascaris

- **Mode of infection:**by eating food or drink contaminated with embryonated egg (2nd stage rhabditid larva) .

-**The infective stage :**embryonated egg contain 2nd stage rhabditid larva

Echinococcus granulosus

- **Mode of infection:** For intermediate host :by ingesting food or drink contaminated with eggs of *Echinococcus granulosus* in feces of Dog.

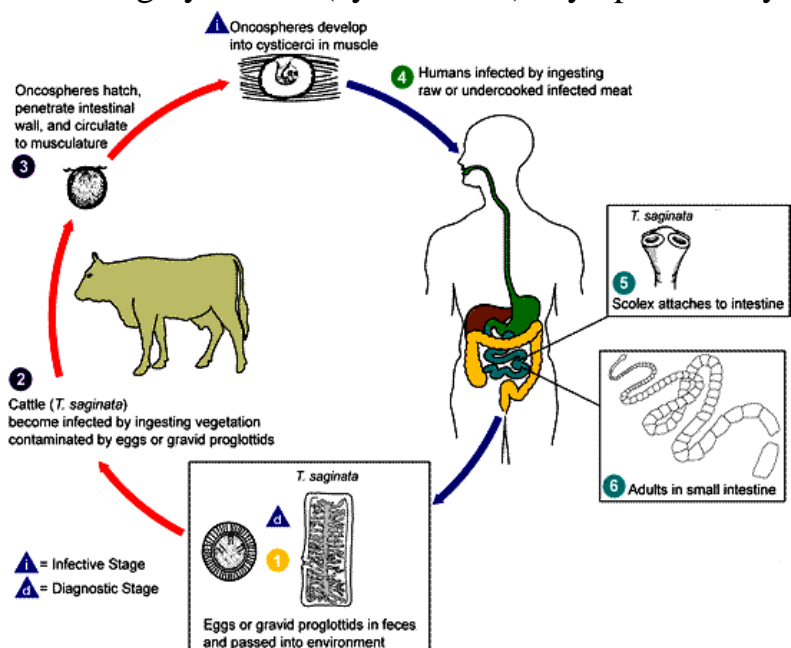
For final host (Dog): by eating material containing hydatid cyst from dead or slaughtered animals.

-**The infective stage ::** For intermediate host: Eggs from which oncospheres are liberated and develop into hydatid cyst .

For final host (Dog): hydatid cyst

c) - Life cycle of *Taenia saginata*.

***Taenia saginata*:** This is the commonest large tapeworm of man all over the world . Man is the only definitive host . Intermediate hosts are cattle , buffalo or other ungulates . The adult worm measures 5-10 meters long , and contains 1000-2000 proglottides . Gravid proglottides are usually detached singly ; they are very active and may make their way through the anus and remain active. The eggs are eaten by intermediate host (Cattle) where hatch in the intestine and the oncospheres migrate to various parts of the body producing bladder worms . These bladder worms (infective stage) are usually found in the subcutaneous tissue , but may be found in abdominal cavity , liver lungs , musculature , heart eye and brain . Man gets the infection by eating insufficiently cooked meat containing cysticerci (cysticercus). Symptoms may be absent or mild, but the infection may occasionally cause digestive disturbances , disturbed appetite , signs of vitamin deficiency , general weakness , loss of weight.



Protozoa

I- Choose the correct answer:

(12 Mark)

1. a. Site of food digestion.
2. a. *Trichomonas foetus*
3. c. Cyst.
4. c. binary fission.
5. c. Holozoic nutrition.
6. a. *Trypanosoma*.
7. a. *Amoeba*.
8. b. unicellular
9. b. flagellates.
10. c. *Plasmodium*.
11. a. *Amoeba*
12. b. *Entamoeba*.
13. c. *T. gallinae*
14. c. large intestine
15. a. Sporozoa
16. d. swallowing cysts of *Giardia* with contaminated food or drinking water.
17. b. *Opalina*
18. a. Tsetse fly.
19. d. binary fission.
20. c. *Trypanosoma*
21. b. Cyst
22. c. frogs
23. d. *Giardia*
24. d. sporozoites

II- Write about "three only " from the following:

(12 Mark)

1. Life cycle of *Sarcocystis*.

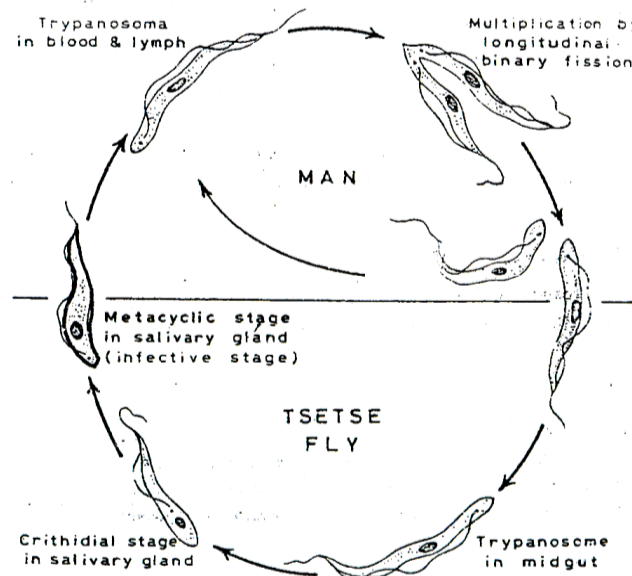
Sarcocystis produces muscle cysts in intermediate host such as domestic herbivores (cattle, sheep,). Final (definitive) hosts are carnivores such as dogs, cats, and man. They shed infectious sporocysts in their feces, from which herbivores become infected.

Sarcocystosis can produce an acute, lethal disease in domestic animals and abortion in cattle. Some species are non-pathogenic. Sporocysts are noninfectious to definitive hosts. When herbivores get infected with sporocysts (sporozoites) multiplication first takes place by schizogony and endodyogeny in endothelial cells after some weeks, muscle cysts are formed. The cysts has a complex walls, many compartments and numerous banana-shaped merozoites. In carnivore's intestine after eating raw meat the zoites are set the develop micro and macrogametes, after fertilization, the zygote is surrounded by a wall and becomes an oocyst. Sporocysts are set free with feaces containing four sporozoites.

2. Life cycle of *Trypanosoma*.

In the blood of man; there are two main forms of the parasite, these are the stumpy forms which are short, thick with a very short or no flagella, and the slender long flagellum. The parasites multiply in the blood of human beings and cause trypanosome fever, and may reach to the central nervous system and cause death.

When tsetse fly bites an infected person, some of the parasites are sucked with the blood into the fly midgut. In the intestine, all are digested except the stumpy forms, which will multiply giving rise to the slender long forms, which will migrate to the salivary glands giving rise to crithidial forms, which will give rise to metacyclic forms (infective stage) and thus fly becomes infective.



3. Types of reproduction in Protozoa.

Reproduction in Protozoa is of two main types,

a. Asexual reproduction:

- Binary fission: The animal is divided into equal daughter cells.
- Multiple fission: The protozoan divides into a number of daughter individuals.
- Budding: One or more smaller daughter individuals are produced.
- Sporulation: Some species multiply by a process of sporulation without encystment during unfavourable conditions.

b. Sexual reproduction:

- Fusion: Gametes fuse together, they may be identical (isogametes) or different (anisogametes).
- Conjugation: In ciliates exchange of nuclei takes place between two individuals.

4. General characters of Sarcomastigophora.

- Simple nucleus.
- Locomotion through flagella, pseudopodia or both.
- Asexual reproduction by binary fission and multiple fission.
- Sexual reproduction through syngamy.
- It includes three superclasses; Mastigophora, Opalinata and Sarcodina.