

Q1/ What are the differences between *Taenia saginata* and *Taenia solium* according to:

1. Scolex
2. Gravid segment
3. Ovary lobes
4. Cysticercus

With drawing?

Q2/ With drawing show the steps of life cycle of *Diphyllobothrium latum*?

Q3/ Identify if each of the following statements are true or false. Mark as T, if they are true and F if they false
(10 marks)

1. The common genital pore in Pseudophyllidea is lateral.
2. Symptoms of diphyllobothriasis are generally mild, and can include diarrhea, abdominal pain, vomiting, weight loss, fatigue, constipation and discomfort.
3. The tapeworms are hermaphrodites.
4. *Echinococcus* adult worm develop from protoscolices.
5. Carrion birds are not mechanical vectors of *Echinococcus* egg.
6. Serology tests (such as indirect hemagglutination, ELISA, immunoblots or latex agglutination) that use antigens specific for *Echinococcus granulosus* are used to verify the imaging results.
7. The intermediate host for *Hymenolepis nana* is cattle.
8. *Hymenolepis nana*, also known as rat tapeworm.
9. In *Hymenolepis nana*, when the eggs have been fertilized in the worm, the segments are referred to as mature segment.
10. Diagnosis for hymenolepiasis is done by examining stool for eggs.

Q4/ Choose the letter of ONE correct answer:

(5 marks)

1. The larvae of Eucestoda have ___ attachment hooks.
a) 2
b) 4
c) 6
d) 8
2. In small number of cases of diphyllobothriasis leads to sever vitamin ___ deficiency.
a) B1
b) B2
c) B6
d) B12
3. Human echinococcosis is caused by the: ___
a) adult stages
b) larval stages
c) adult and larval stages
d) none of above
4. Alveolar echinococcosis is caused by: ___
a) *Echinococcus granulosus*
b) *Echinococcus multilocularis*
c) *Echinococcus oligarthrus*
d) *Echinococcus vogeli*
5. Species of *Echinococcus* are transmitted to ___ by means of eating infected cyct-containing organs.
a) Intermediate host
b) definitive hosts
c) a and b
d) none of above