



Sohag University

Pre-pharmacy year
Exam of Zoology (Part 1: Animal Taxonomy)

Date: 23/01/2013

Total Time: 3 hrs



Faculty of science
Zoology Department

Answer the following questions: (45 marks)

Note: Part 1 is 3 questions in 2 pages

1-Choose the correct answer (12 marks)

1-Each of the following statements concerning *Ascaris lumbricoides* is correct except

- A) *Ascaris lumbricoides* is one of the largest nematode
- B) *Ascaris lumbricoides* can cause pneumonia
- C) Both dogs and cats are intermediate host of *Ascaris lumbricoides*
- D) *A. lumbricoides* is transmitted by ingestion of eggs

2-The infective stage of the *Taenia saginata* worms is

- A) encysted metacercaria
- B) cysticercus cellulosa
- C) cysticercus bovis
- D) trophozoite

3-Each of the following statements concerning hookworm infection is correct except:

- A) hookworm infection can cause pneumonia
- B) hookworm infection is acquired by humans when larvae penetrate the skin
- C) hookworm infection can be diagnosed by finding the trophozoite in the stool
- D) hookworm infection is caused by *Ancylostoma duodenale*

4-All those organism belong to trematodes except

- A) *Heterophys heterophys*
- B) *Ascaris lumbricoides*
- C) *Fasciola hepatica*
- D) *Schistosoma mansoni*

5-Infection of the definitive host by the intestinal fluke is by ingestion of

- A) the snail intermediate host
- B) the infective fish with metacercariae
- C) the cercariae
- D) the miracidium

6-*Trypanosoma gambiense* moved by

- A) pseudopodia
- B) flagella
- C) cilia
- D) non of the above

7-Flame cells are characteristic excretory organelles of

- A) trematoda
- B) cestoda
- C) nematode
- D) both A&B

7-All of the following are example of elastic cartilageEXCEPT:

- a- Epiglottis
- b-Ear pinna
- c-Articular surfaces
- d- Eustachian tube.
- e-both b&c

8-The cell which is responsible for bone resorption and remodeling is:

- a- osteocyte.
- b- osteoclast.
- c- chondroblast.
- d- chondrocyte.
- e- osteoblast.

9-Major chemical constituents of bone matrix include

- a-calcium phosphate
- b-calcium carbonate
- c-type I collagen
- d-type III collagen
- e-minerals and crystals

10- Volkmann's canals

- a-contains no blood vessels
- b-are at the center of the osteon
- c-communicate with haversian canals
- d-are arranged parallel to the bone surface
- e-both b&c

11-The main character of the cardiac muscle fibers are:

- a-multinucleated
- b-can regenerate
- c-not branched
- d-uninucleated
- e- presence of the intercalated disc

12- The dark band (A band) of skeletal muscle fibers contains:

- a- myosin filaments.
- b- actin filaments.
- c- both a & b.
- d- neurofilaments.
- e- meromyosin.

13-The principal function of neutrophils :

- a- phagocytosis of bacteria .
- b- phagocytosis of debris during the inflammation .
- c- phagocytosis of parasites .
- d- release histamine and heparin
- e- both a & b.

14-The NORMAL total leucocytic count is about:

- a- 10.000 WBC /1c mm of blood.
- b- 20.000 WBC/1c mm of blood.
- c- 3.000 WBC/ 1c mm of blood.
- d- 16.000 WBC /1c mm of blood.
- e- 2000 WBC/ 1c mm of blood

15-Polycythemia means:

- a- increase in number of W.B.Cs.
- b- increase in number of R.B.Cs.
- c- increase in size of W.B.Cs.
- d- decrease in rate of formation of R.B.Cs.
- e- increase in the number of platelets.



Sohag University



Faculty of science
Zoology Department

Pre-pharmacy year
Exam of Zoology (Part 1: Invertebrates)
Date: 27/12 /2014
Total Time: 3 hrs

Answer the following questions: (45 marks)

1-Choose the correct answer (10 marks)

1-Infective stage of Heterophyes Heterophyes is

- a. Egg
- b. Encysted metacercaria on grass
- c. Encysted metacercaria in fish muscle
- d. None of the above

2-Bulinus truncatus is the intermediate host of

- a. Schistosoma mansoni
- b. Schistosoma haematobium
- c. Schistosoma japonicum.
- d. All of the above

3-The laboratory diagnosis of Ascaris lumbricoides is made by finding.

- a. eggs
- b. adult worms
- c. larva
- d. a&b

4-All of these parasites are pathogenic EXCEPT

- a. Entamoeba histolytica
- b. Trypanosoma
- c. Amoeba
- d. Fasciola

5-The following are diagnostic features of Schistosoma mansoni EXCEPT

- a. Anemia
- b. Enlargment of liver and spleen
- c. severe dysentery
- d. Inflammatory of bladder

6-Which disease transmitted by culex mosquitoes

- a. Malaria
- b. Trypanosomiasis
- c. Elphantiasis
- d. a& c

7-The rhabditiform larva of Ancylstoma duodenale can be detected in

- a. Stool
- b. Urine
- c. Soil
- d. a & b

8-Cysticercus bovis is the larval form of

- a. Taenia saginata
- b. Teania solium
- c. Ancylostoma
- d. Ascaris

9- Plasmodium malaria moved by

- a. Cilia
- b. Pseudopodia
- c. Flagella
- d. Non of the above

- 10-1- Class Cestoda has the following characters EXCEPT
- a. Flat worm
 - b. The worms are segmented
 - c. Has alimentary tract
 - d. Hermaphrodite

2- Put true or false of the following sentences and corrects the false ones :(10 marks)

- 1- All Trematodes are hermaphrodites ()
- 2-Schizogony is a type of protozoa sexual reproduction ()
- 3-Gemmules formation are found in seawater sponges ()
- 4-Nematocyst is found on the tentacles and umbrella surfaces of hydra ()
- 5-Filarial form (*Wuchereria bancrofti*) lives in lymphatic system of man ()

3-Write on the following items: (25 marks)

A)-By using the following keys compare between the two species of *Tenia*

- 1-intermediate host
- 2-Length
- 3-Scolex
- 4-Number of segments
- 5-Number of testes
- 6-infective stage
- 7-Gravid segment
- 8- Definitive host

B)-Life cycle of trypanosome gambiense, illustrating how the infection of definitive host is taken place

Best wishes

Best wishes.....Prof./ Azza Mohamed Khadr



Sohag University

امراء الهيرم



Faculty of science
Zoology Department

Pre-pharmacy year
Exam of Zoology (Part 2: Cytology)
Date: 23/01/2013
Total Time: 3 hrs

Answer the following questions: (45 marks)

Note: Part 2 is 3 questions in 1 page

1) Put (✓) or (x) symbols on the following sentences, describe why for false one: (10 = 2 Marks for each)

- i) The rough endoplasmic reticulum has an important role in lipid synthesis, detoxification and other metabolic processes. ()
- ii) The Golgi apparatus mainly composed from the forming face or trans-Golgi network and maturing face, or cis-Golgi network. ()
- iii) Ribosomes are found on the outer surfaces of the nuclear envelope. ()
- iv) The chromosomal crossover occurs in the prophase II from the mitotic divisions. ()
- v) Peripheral proteins penetrate the hydrophobic core of the lipid bilayer. ()

2) Complete the following sentences: (15 = 3 Marks for each)

- i) In, a cell membrane engulfs a particle by Wrapping pseudopodia around it; but in, the cell membrane "gulps" droplets of extracellular fluid into tiny-vesicles.
- ii) In desmosomes cell junction, proteins form the actual anchor; but in, integrins proteins form the actual anchor.
- iii) The DNA molecule composed from, and
- iv) The early prophase of the mitotic division characterized with, and
- v) The function of the glycolipids in the plasma membrane are, and

3) Write short notes "With drawing" on the following:

- i) Molecular structure of the Mitochondria. (10 Marks)
- ii) Molecular structure of the plasma membrane. (10 Marks)

Question of Part 2 finished

Best wishes.....Dr. Aziz Awaad