



Zoology Department

Final Exam: General Zoology (100 Z)
Credit Hour System 2016/2017

Time: Two Hours
Second Semester

قسم علم الحيوان

Answer the following questions (50 marks)

I: Choose the best single correct answer (10 marks)

1. Sarcolemma is the cell membrane of
a) Nerve cell b) Epithelial cell c) Muscle cell
2. How many divisions are required to go from a zygote to 64 cell embryo stage?
a) 2 b) 4 c) 5 d) 6
3. Dwarfism is a disorder results from
a) Deficiency of GH before adulthood b) Reduced blood glucose level
c) Excess PTH activity d) Excess ACTH activity
4. Insulin is secreted byof the pancreas.
a) Alpha cells b) Delta cells c) Beta cells
5. During Spermatogenesis occurs in multiplication phase.
a) Mitotic cell division b) Meiotic cell division c) both a and b
6. Goblet cells are best described as
a) Unicellular endocrine gland b) Multicellular exocrine gland
c) Unicellular exocrine gland d) Multicellular endocrine gland
7. Which of the following is surrounded by two membranes?
a) Mitochondrion b) Cell membrane c) Nucleolus d) All are true
8. Binary fission is a type of.....
a) Sexual reproduction in *Amoeba* b) Sexual reproduction in *Trypanosoma*
c) Asexual reproduction in *Amoeba* d) None of them
9. muscles are multinucleated.
a) Skeletal b) Smooth c) Cardiac d) Involuntary

10. Chondrocytes are present in..... ,
- a) Bone b) Hyaline cartilage c) Mesenchyme d) Adipose tissue
11. Which one of the following tissues is designed to stretch?
- a) Stratified b) Squamous c) Transitional d) Epithelial
12. Melatonin is secreted by
- a) Thyroid gland b) Adrenal cortex c) Adrenal medulla d) Pineal gland
13. tissue transmits electrical signals.
- a) Muscle b) Epithelial c) Connective d) Nervous
14. is a process by which cells release their contents to outside of the cell.
- a) Phagocytosis b) Pinocytosis c) Endocytosis d) Exocytosis
15. is a type of fibers that made of elastin.
- a) Yellow b) Collagen c) Reticular d) White
16. Which of the following digest the dead and old organelles in the cell?
- a) Lysosome b) Ribosomes c) Golgi complex d) Mitochondria
17. One of the following is a mixed gland
- a) Pituitary b) Thyroid c) Adrenal d) Pancreas
18. The scientist Ray defined the
- a) Binomial nomenclature b) Taxonomic ranks c) Species d) Family
19. Polyp and medusa are forms of
- a) Poriferans b) Cnidarians c) Protozoans d) Nematodes
20. Which one of the following terms from simple to most complex is correct?
- a) Organelles, cells, tissues, organs, organism
- b) Cells, organelles, organs, tissues, organism
- c) Tissues, cells, organelles, organs, organism
- d) Organs, cells, organelles, tissues, organism

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II: (A) Complete the following table (6 marks)

	Platyhelminthes	Nematoda	Annelida
Digestive system
Body cavity (draw)			
Body shape
Excretory system

II: (B) Define the following terms (7 marks)

1- Cleavage

.....

2- Homeostasis

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3- Species

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4- Endocrine glands

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5- Embryology

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6- Active transport

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7- Cytology

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III: Answer the following (15 marks)

1- List the origin of animal tissues from embryonic layers (ectoderm, endoderm and mesoderm)

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2- Write short notes on locations and functions of simple squamous epithelium

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3- List THREE differences between prokaryotic and eukaryotic cells

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4- Give short notes on hormones of adrenal gland

a) Cortex hormones:

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b) Medulla hormones:

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5- General characteristics of phylum Chordata:

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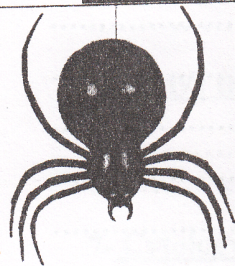
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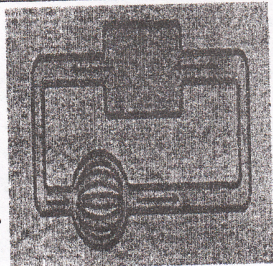
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V: Answer the following

(12 marks)

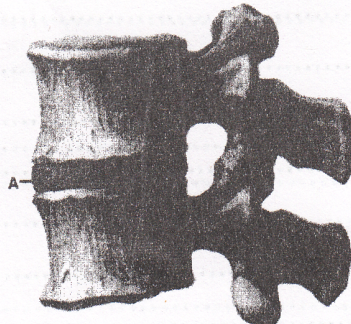


(1)



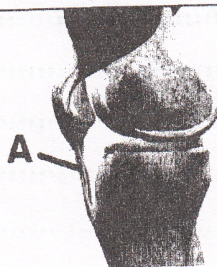
(2)

(A) (1) Type of symmetry:.....
Identify sample Phylum:.....
(2) Type of circulatory system
- This type of circulatory system is present in
Phylum:.....

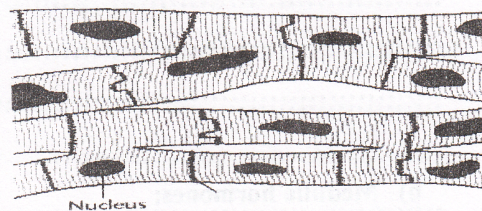


(B)

(A) Identify the C.T.....
Description.....
.....
Location.....



(C) Identify the arrow part A.....
Description.....
.....
Location.....



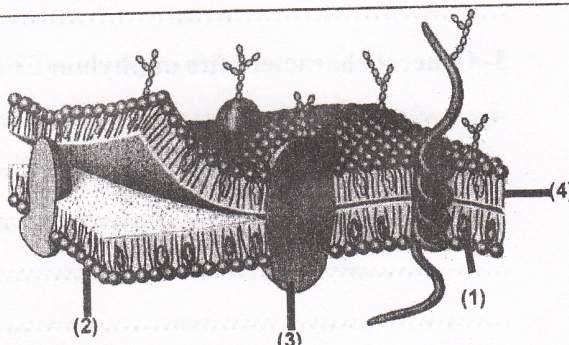
Nucleus

(D) Identify muscle tissue.....
Location.....



(E) a) The diagram refers to a disease
called.....

b) This disease is caused by.....

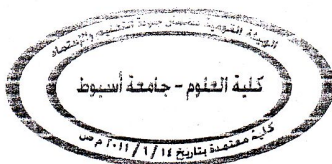


(F) Label 1.....
Label 2.....
Label 3.....
Label 4.....

With our best wishes



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Credit Hour System 2016/2017

Final Exam:

Time: Two Hours

Assiut University

Faculty of Science

Zoology Department

Time: two hours

Second term Final Exam 2016/1017

Course title: healthy feeding. (URO13)

Q1- Answer by \checkmark or X for these sentences: (20 marks, one mark each)

1-Trypsin enzyme is one of pancreatic juice , is activated by enterokinase and its function is the digestion of protein to proteoses . ()

2-Bile juice secreted 1.5 litre per day from the gall bladder and has a role in lipid digestion. ()

3-Secretin hormone stimulates stomach to secrete its juice of about 2 liters per day upon the arrival of food to the stomach. ()

4-Albumin, Globulin, glycerol and Gelatin are simple proteins ()

5- Pellagra disease resulted from vitamin B₇ deficiency and its main symptom is dermatitis. ()

6- Oddi muscle relax at the arrival of food from the stomach to duodenum facilitating the secretion of bile juice from gallbladder. ()

7- The stored subcutaneous fat acts as a thermal insulator to not prevent loss of heat. ()

8-Vitamin B₁₂ deficiency leads to iron deficiency anemia . ()

9-In human, liver can store 120 grams of glycogen after meal, while skeletal muscles can store 1400 grams. ()

10- Phosphorus is necessary to acid-base balance and body fluid balance . ()

11- Proteins differ from each other as a result of the difference in the number , type and arrangement of amino acids . ()

12- Compound lipids are esters of fatty acids in combination with sugar or phosphorus as heparin. ()

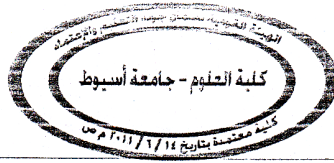
13- Deficiency of vit B2 riboflavin leads to inflammation of angles of mouth and glossitis and dermatitis . ()

14- Favism anemia is hemolytic type which is due to deficiency of G6PDH in red blood cells which are not able to produce enough NADPH (necessary for regeneration of antioxidants). ()

15- Deficiencies of both Sodium or potassium or calcium ions lead to nerve disorders. ()



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16- Deficiency in dietary vitamin K may lead to Sterility in rats. ()

17- Addition of antioxidants to food is used primarily to prevent autoxidation and subsequent development of rancidity and off-flavor. ()

18- Hereditary Spherocytosis , Target cell anemia, megaloplastic anemia and Sick cell anemia are examples of hemolytic anemia . ()

19 - The lack of RBCs is the only cause of anemia. ()

20- In some, pathological cases, the body increase the dependence on body fat to produce energy leading to increase the level of keto bodies and this is called ketonemia. ()

Q2- Answer four questions only: (30 marks: 7.5 marks each)

1- what are the Causes of iron deficiency anemia (Five items)

2- Explain the functions of enzymes of pancreatic juice in digestion?.

3- Discuss the function of hydrochloric acid in the stomach? (Five items).

4- Mention the biological significance of proteins:? (Five items).

5- Explain four symptoms of favism anemia with interpreting the mechanism of favism anemia?

6- Discuss the Functions of dietary fibers in intestine? 6 items

With my best wishes and great success,

Professor Dr. Mohamed Bassam Al-Salahy