

كروم

جامعة اسيوط (يونيو 2016) المادة : التفكير العلمى
كلية العلوم رقم المادة : 14 م ج الزمن : ساعتان

سؤال اجبارى : (20 درجة)

الانسان يصطنع منهجا يتيح له الاتصال المباشر بالواقع ، عن طريق الجمع بين العقل والتجربة ، إلا فى مرحلة متأخرة من تاريخه . فلا بد إذن أن عقبات أساسية حالت دون تحقيق هذا الاتصال المباشر بين الإنسان والعالم عن طريق العلم . فما هى هذه العقبات التى أخرت ظهور العلم ، والتى لاتزال تشوه صورة المعرفة العلمية حتى يومنا هذا عند فئات كثيرة من البشر ؟

اجب عن سؤاليين فقط

السؤال الاول : (15 درجة)

التفكير العلمى هو ذلك النوع من التفكير المنظم .. الذى يمكن ان نستخدمه فى شئون حياتنا اليومية .. أو فى النشاط الذى نبذله حين نمارس أعمالنا المهنية المعتادة .. أو فى علاقاتنا مع الناس ... تكلم بالتفصيل عن سمات التفكير العلمى .

السؤال الثانى : (15 درجة)

ليس العلم ظاهرة منعزلة ، تنمو بقدرتها الذاتية وتسير بقوة دفعها الخاصة وتخضع لمنطقها الداخلى البحت ، بل أن تفاعل العلم مع المجتمع حقيقة لا ينكرها أحد . تكلم بالتفصيل عن الابعاد الاجتماعية للعلم المعاصر .

السؤال الثالث : (15 درجة)

- وضح الاتى :
1- العناصر الاخلاقية فى شخصية العالم .
2- العلاقة بين العلم و التكنولوجيا .

تمنياتى لكم بالتوفيق
أ.د. محمد زيدان

الزمن: ساعتان
المادة: تاريخ العلوم (١٢٠ ج)
اليوم: الاحد
التاريخ: ٢٠١٦/٦/١٩ م

امتحان لطلاب كلية العلوم
المستوي الاول
تاريخ العلوم

كلية العلوم
الفصل الدراسي الثاني
٢٠١٥/١٦ م

أجب عن جميع الاسئلة الآتية

السؤال الاول: ضع علامة صح او خطأ امام العبارات الآتية: (٣٠ درجة)

- (١) يعتبر ابن ملكا من الرواد الاوائل في علم الارض ()
- (٢) يعتبر اقليدس من مؤسسي علم الجبر في عصره عند اليونانيين ()
- (٣) من اشهر علماء العرب في الاحياء ابن الهيثم ()
- (٤) من اهم انجازات الخازن هو كتاب القانون المسعودي ()
- (٥) الجاحظ اول من لقب بشيخ النباتين العرب وله كتاب الجامع لصفات اشئات النبات ()
- (٦) يعتبر ارسطو اول من وضع طريقة للتقطير في العالم ()
- (٧) تعتبر النسبية العامة الزمن لا يمثل احد الابعاد الاساسية في الكون ()
- (٨) هيتون هو اول من قال ان الارض تشبه صدفة محاطة بالمياه وان السماء تغطي هذه الصدفة ()
- (٩) يعتبر الدينوري اول من الف موسوعة القانون ()
- (١٠) اول من ابتكر مخدر قبل الجراحه وسماه المرقد هو ابو سينا ()

السؤال الثاني: (١٠ درجة)

- (أ) اذكر اسهامات العرب في تطور علم الارض.
- (ب) أذكر أهم عشر علماء ساهموا في تطور العلوم عبر التاريخ من وجهة نظرك.

السؤال الثالث: (١٠ درجة)

- (أ) اكتب شرح مبسط للنظرية النسبية لاينشتاين.
- (ب) تكلم عن تطور علم الارقام عبر التاريخ.

مع تمنياتي لكم بالتوفيق

أستاذ دكتور / أحمد ماهر عبدالباسط



Ministry of Higher Education
Assiut University
Faculty of Science



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Final Exam
Term II, Year: 2015/2016

Second Year

Course Title: English Language (2)

Date of Exam: Wednesday 15/6/2016

Time Allotted: 120 Minutes

Answer the following questions:

Part I: Read the following passage *Carefully*, then answer the Questions below.

(20 points)

Thomas Edison was born February 11, 1847 in Milan, Ohio. He was nicknamed "Al" at an early age. At age 11, Edison moved to Michigan where he spent the remainder of his childhood.

Thomas Edison struggled at school, but learned to love reading and conducting experiments from his mother who taught him at home. At age 15, Edison became a "tramp telegrapher", sending and receiving messages via morse code, an electronically-conveyed alphabet using different clicks for each letter. Eventually, he worked for the Union Army as a telegrapher. Edison often entertained himself by taking things apart to see how they worked. Soon, he decided to become an inventor.

In 1870, Edison moved to New York City and improved the stock ticker. He soon formed his own company that manufactured the new stock tickers. He also began working on the telegraph, and invented a version that could send four messages at once. Meanwhile, Edison married Mary Stillwell, had three children and moved his family to Menlo Park, New Jersey where he started his famous laboratory.

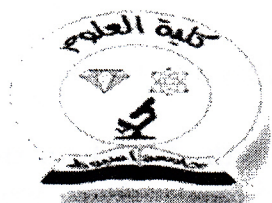
In 1877, Edison, with help from "muckers", individuals from around the world looking to make fortunes in America, invented the phonograph. The phonograph was a machine that recorded and played back sounds. He perfected the phonograph by recording "Mary had a Little Lamb" on a piece of tin foil! In 1878, Edison invented the light bulb as well as the power grid system, which could generate electricity and deliver it to homes through a network of wires. He subsequently started the Edison Electric Light Company in October of 1878.

In 1884, after he attained great fame and fortune, Mary Stillwell died: Edison remarried 20 year-old Mina Miller in 1886. He had three more children and moved to West Orange, New Jersey. At West Orange, Edison built one of the largest laboratories in the world. He worked extremely hard and registered 1,093 patents.

Edison continued to invent or improve products and make significant contributions to x-ray technology, storage batteries and motion pictures (movies). He also invented the world's first talking doll. His inventions changed the world forever. They still influence the way we live today. Edison worked until his death on October 18, 1931.

Questions:

1. In what state did Thomas Edison NOT live?
 - a. Michigan
 - b. Ohio
 - c. Massachusetts
2. How many children did Thomas Edison have?
 - a. 3
 - b. 5
 - c. 6
3. What best describes Morse Code?
 - a. A language for deaf people
 - b. A system of clicks that stand for letters
 - c. A system of clicks that stand for words
4. What was one of Thomas Edison's first accomplishments?
 - a. Inventing an improved stock ticker
 - b. Inventing an improved x-ray
 - c. Inventing tin foil
5. A phonograph is most similar to:
 - a. A walkie-talkie
 - b. A record player
 - c. A television
6. What is a "mucker"?
 - a. Someone from another country
 - b. Someone from another country hoping to find a home in America
 - c. Someone from another country hoping to make a fortune in America
7. Select all of the following that Thomas Edison did not invent.
 - a. The first storage battery
 - b. A power system that could deliver electricity to homes
 - c. The first stock ticker
8. What does the quote "Genius is 1 percent inspiration and 99 percent perspiration" mean?
 - a. Only geniuses should think of new ideas
 - b. Geniuses have to sweat a lot to come up with good ideas.
 - c. Great ideas take more hard work than ingenuity



Assiut University
Faculty of Science
Second Semester Final Examination
(June 2016)



Subject: English Language I

Code: 015UR

Students: Level One

Time Allowed: 2 hours

I- Identify the topic sentence in the following paragraph: (4 marks)

Some people leave too many lights on around the house. Some aren't careful about how much water they use. Americans waste a lot of resources. Most people buy products with a lot of unnecessary packaging that isn't good for the environment.

II- Find out the irrelevant sentence in the following paragraph: (4 marks)

Mr. Phillips is the principal of Lake Ridge School. He makes announcements every morning at 8:15 to greet all students and to get the day started. Every morning he makes a quick visit to all the classes and usually waves to the students. Mr. Phillips also walks around in the cafeteria to make sure students are safe. He likes to eat tacos. He also directs traffic on the cross walk at the end of each day.

III- Read the following passage then answer the questions below: (18 Marks)

When you imagine the desert, you probably think of a very hot place covered with sand. Although this is a good description for many deserts, Earth's largest desert is actually a very cold place covered with ice: Antarctica.

In order for an area to be considered a desert, it must receive very little rainfall. More specifically, it must receive an average of less than ten inches of precipitation—which can be rain, sleet, hail, or snow—on the ground every year. Antarctica, the coldest place on earth, has an average temperature that usually falls below the freezing point. And because cold air holds less moisture than warm air, the air in Antarctica does not hold much moisture at all. This is evident in the low precipitation statistics recorded for Antarctica. For example, the central part of Antarctica receives an average of less than 2 inches of snow every year. The coastline of Antarctica receives a little bit more—between seven and eight inches a year. Because Antarctica gets so little precipitation every year, it is considered a desert.

When precipitation falls in hot deserts, it quickly evaporates back into the atmosphere. The air over Antarctica is too cold to hold water vapor, so there is very little evaporation. Due to this low rate of evaporation, most of the snow that falls to the ground remains there permanently, eventually building up into thick ice sheets. Any snow that does not freeze into ice sheets becomes caught up in the strong winds that constantly blow over Antarctica. These snow-filled winds can make it look as if it is snowing. Even though snowfall is very rare there, blizzards are actually very common on Antarctica.

1) The main purpose of paragraph 1 is to

- | | |
|----------------------------|--------------------------|
| A. accept a conclusion | B. introduce an argument |
| C. provide a brief history | D. deny a common belief |

(Go to the back of this sheet)

(Page Two)

2) The best title for this passage would be

- A. Earth's Many Deserts
- B. Antarctica: The Coldest Place on Earth
- C. A Desert of Ice
- D. Unusual Blizzards

3) Africa's Sahara Desert is the second-largest desert on earth. Based on the information in the passage, what characteristic must the Sahara share with Antarctica?

- A. low temperatures
- B. high temperatures
- C. frequent blizzards
- D. low precipitation

4) As used in paragraph 2, which is the best definition for precipitation?

- A. moisture in the air that falls to the ground
- B. any type of weather event
- C. weather events that only happen in very cold areas
- D. a blizzard that occurs in areas with limited snowfall

5) In paragraph 2 the author writes, "And because cold air holds less moisture than warm air, the air in Antarctica does not hold much moisture at all." Using this information, it can be understood that

- A. air in Africa holds more moisture than the air in Antarctica
- B. air surrounding a tropical island holds less moisture than the air in Antarctica
- C. air in the second floor of a house is typically warmer than air on the first floor
- D. air at the mountains is typically colder than the air at the beach

6) Based on the information in the final paragraph, it can be understood that blizzards in Antarctica are mainly the result of

- A. freezing cold temperatures
- B. large amounts of snowfall
- C. low amounts of precipitation
- D. strong winds

IV- Correct the following sentences:

(24 Marks)

- 1) Each of the girls sing well.
- 2) Fifty percent of the pie have disappeared.
- 3) Ten dollars are a high price to pay.
- 4) Neither she nor they was willing to predict the election.
- 5) Please give it to John or myself.
- 6) Whoever you elect will serve a four-year term.
- 7) Some of the pies is missing.
- 8) You should check your spelling, grammar, and punctuating.
- 9) The order was requested six weeks ago, therefore I expected the shipment to arrive by now.
- 10) I must study english and math.
- 11) The folder, not the letters, were misplaced.
- 12) He is not unwilling to help.

(Best Wishes)

Examiners:

Dr. Sherin Abdel Ghaffar
Dr. Yasser Ahmed Gomaa



Assiut University
Faculty of Science
Zoology Department

- Summer course (2016)
- Course: Healthy Nutrition (UR013)
- Marks: 50

Note: The exam is in two papers

Answer the following 5 questions

01: Choose the correct answer (10 marks):

1. Fats are:

- a)- micronutrients
- b)- polymers
- c)- macronutrients
- d)- both a & b

2. Control the production and secretion of bile:

- a)- pepsin
- b)- cholecystokinin
- c)- secretin
- d)- both b & c

3. Iodine deficiency causes:

- a)- Goiter
- b)- Anemia
- c)- Marasmus
- d)- Kwashiorkor

4. Starch is:

- a)- monosaccharide
- b)- disaccharides
- c)- polysaccharides
- d)- none of them

5. If both parents are obese the risk for developing obesity is:

- a)- 10 %
- b)- 40 %
- c)- 80 %
- d)- 25 %

6. Testosterone effects can be classified as:

- a)- anabolic
- b)- virilizing
- c)- catabolic
- d)- both a & b

7. Proteins are broken down to peptide fragments in small intestine by:

- a)- Trypsin
- b)- Chymotrypsin
- c)- Pepsin
- d)- both a & b

8. Lipase inhibitor drug:

- a)- Sibutramine
- b)- Orlistat
- c)- Amphetamines
- d)- none of them

9. A small tissue covers the opening to the trachea during swallowing:

- a)- epiglottis
- b)- Sphincters
- c)- larynx
- d)- oesophagus

10. Bile is produced from:

- a)- pancreas
- b)- spleen
- c)- liver
- d)- intestine

2

Q2: Match from column A to its correct phrase in column B (5 marks) :

Column A	Column B
1. sorbitol	a. One of obesity treatment methods.
2. HCl	b. From composition of lipids.
3. gastric banding surgery	c. Play an important role in fat digestion.
4. Steroids	d. activates pepsinogen to pepsin.
5. Bile salts	e. used as a sweetener agent

Q3: Write whether of the following statements is True (T) or Falls (F) (10 marks):

1. Iodine deficiency causes anemia ().
2. Melatonin operates body's "biological clock" ().
3. E-Number of colouring additive begins with 1 ().
4. Lactose from monosaccharides ().
5. Type 2 diabetes is insulin dependent diabetes ().
6. Epinephrine increased muscle contraction rate and blood Pressure ().
7. Ascorbic acid from nutritive antioxidants ().
8. Parietal cells secrete mucus during digestion in stomach ().
9. Sodium nitrite is used as preservative additive ().
10. Vitamin D deficiency causes Xerophthalmia ().

Q4: Define(5 marks):

- a) Under nutrition b) Type 2 diabetes c) Systolic pressure
d) Digestion e) Steatosis

Q5: Write on four only from the following (20 marks):

- a) Short note about Oligosaccharides.
- b) Surgery strategy for weight loss management.
- c) Major types of stroke.
- d) Preservatives.
- e) Metabolic liver diseases.
- f) Protein digestion.

Good Luck
Dr/ Hanan Waly

2



Assiut University
Faculty of Science
Zoology Department

- Academic Year 2016
- Course: Healthy Nutrition (UR013)
- Marks: 50

Note: The exam is in two papers

Answer the following 5 questions

Q1: Choose the correct answer (10 marks):

1. Starch is:
a)- monosaccharide
b)- disaccharides
c)- polysaccharides
d)- none of them
2. Unsaturated fats can be converted to saturated fats by:
a)- hydration
b)- dehydration
c)- hydrogenation
d)- saturation
3. Iodine deficiency causes:
a)- Goiter
b)- Anemia
c)- Marasmus
d)- Kwashiorkor
4. The minimum calorific requirement needed to sustain life in a resting individual:
a)- BMR
b)- RMR
c)- BMI
d)- none of them
5. If both parents are obese the risk for developing obesity is:
a)- 10 %
b)- 40 %
c)- 80 %
d)- 25 %
6. Agents prevent or disperse frothing:
a)- Anti-caking
b)- Anti – foaming
c)- Stabilisers
d)- Thickeners
7. Proteins are broken down to peptide fragments in small intestine by:
a)- Trypsin
b)- Chymotrypsin
c)- Pepsin
d)- both a & b
8. Lipase inhibitor drug:
a)- Sibutramine
b)- Orlistat
c)- Amphetamines
d)- none of them
9. A small tissue covers the opening to the trachea during swallowing:
a)- epiglottis
b)- Sphincters
c)- larynx
d)- oesophagus
10. Bile is produced from:
a)- pancreas
b)- spleen
c)- liver
d)- intestine

2

Q2: Match the chemical or enzyme from column A to its corresponding action in column B (5 marks) :

Column A	Column B
1. Gastrin	a. stimulates the secretion of bicarbonate.
2. HCl	b. cleaves proteins to peptides.
3. Pepsin	c. start starch digestion.
4. Salivary amylase	d. activates pepsinogen to pepsin.
5. Secretin	e. Stimulates parietal cells to release HCl.

Q3: Write whether of the following statements is True (T) or Falls (F) (10 marks):

1. Gestational diabetes mellitus occurs in about 2%–5% of all pregnancies ().
2. Muscles are structural proteins ().
3. E-Number of colouring additive begins with 1 ().
4. Maltose consists of two molecules of glucose ().
5. Type 1 diabetes results from the body's failure to use insulin ().
6. Appetite is the feeling that motivates us to eat ().
7. Saccharin is a nutritive sweetener ().
8. Parietal cells secrete mucus during digestion in stomach ().
9. Sodium nitrite is used as preservative additive ().
10. Vitamin E deficiency causes rickets in children ().

Q4: Calculate (5 marks):

Ahmed's body weight, who has BMI: 18 and 152 cm height.

Q5: Write on four only from the following (20 marks):

- a) Types of teeth and the dental formula for adult.
- b) Surgery strategy for weight loss management.
- c) Major types of stroke.
- d) Emulsifiers and stabilisers
- e) Main types of diabetes.

Good luck,
Dr. Sofair M. M. Ragab



Assiut University
Faculty of Science
Zoology Department

Summer course/ General Zoology
Exam /September/2016

Time: 2 hour
Level: First
Course Code: 100Z

Answer the following questions (50 marks)

First question: Choose the best single correct answer (10 marks)

1.is the largest class in kingdom Animalia.
a) Arthropoda b) Cnidaria c) Chordata d) Insecta
2. Muscidae is a.....name.
a) Species b) Genus c) Family d) Kingdom
3. Blood is a (an).....tissue.
a) Connective tissue b) Muscular c) Nervous d) Epithelial
4. Which part of the cell plays an essential role during animal cell division?
a) Ribosomes b) Lysosomes c) Centrioles d) RER
5. How many successive divisions are required to go from a zygote to 16 cell embryo stage?
a) Three b) Four c) Five d) Six
6.are formed of actin proteins.
a) Microtubules b) Microfilaments
c) Intermediate filaments d) Cell membrane
7. Each secondary spermatocyte gives.....sperm
a) One b) Two c) Four d) Three polar bodies
8. Ectoderm, endoderm and mesoderm are formed by the end of.....
a) Fertilization b) Gastrulation c) Gametogenesis d) Blastulation
9. Rank the following terms from simplest to most complex
a) Organelles, cells, tissues, organs, organism
b) Cells, organelles, organs, tissues, organism
c) Tissues, cells, organelles, organs, organism
d) Organs, cells, organelles, tissues, organism

2

10. Which organelles modify, sort and package proteins in the cell?

- a) Mitochondria b) Ribosomes c) Golgi complex d) Lysosomes

11.attach bone to bone.

- a) Tendons b) Ligaments c) Elastic C.T. d) Dense irregular C.T.

12. The circulatory system is opened in all of the following Except.....

- a) Insects b) Scorpions c) Leeches d) Earthworm

13. What type of glands secretes its product directly into the blood?

- a) Endocrine b) Sweat gland c) Exocrine d) Goblet cell

14. Which one of the following molecules makes the cell membrane less permeable?

- a) Protein b) Carbohydrate c) Cholesterol d) Lipid

15. To have a fraternal twin a single egg should be fertilized by two sperms.

- a) True b) False

16. The cells that form the bones are known as.....

- a) Oestocytes b) Choanocytes
c) Fibrocytes d) Chondrocytes

17. Both bones and cartilages originate from mesoderm.

- a) True b) False

18. Which of the following is the correct scientific name for the human being?

- a) *Homo Sapiens* b) *Homo sapiens*
c) *homo sapiens* d) *homo Sapiens*

19. Which one of the following has much extracellular matrix between cells?

- a) Neurons b) Areolar connective tissue
c) Adipose tissue d) simple and stratified epithelium

20. Which of the following has stages arranged in the sequence in which they occur?

- a) Zygote -> gastrula - -> morula - -> blastula - -> cleavage
b) Zygote -> cleavage - -> morula - -> gastrula - -> blastula
c) Zygote -> cleavage - -> morula - -> blastula - -> gastrula
d) Zygote -> cleavage - -> morula - -> blastula - -> oogenesis

Second question: (A) Match column 1 with 2 (5 marks)

Column 1	The answer	Column 2
1. Phylum Annelida	D	(A) With incomplete digestive system
2. Sponges		(B) Causes sleeping sickness disease
3. Insects		(C) Unicellular and moves by pseudopodia
4. Phylum Chordata		(D) Segmented worms and includes leeches
5. Phylum Cnidaria		(E) Have six legs
6. <i>Taenia sp.</i>		(F) Pseudocoelomate animals
7. Phylum Nematoda		(G) Are diploblastic animals
8. <i>Fasciola sp.</i>		(H) Defined the species
9. <i>Amoeba sp.</i>		(I) Sessile animals with many pores
10. <i>Trypanosoma sp.</i>		(K) The digestive system is lacking
11. Aristotle		(L) With notochord and dorsal hollow nerve cord
		(M) Established Binomial nomenclature

Second question: (B) Write the correct words or the scientific expression of the following. (10 marks)

1. A process of male and female gamete formation. (.....)
2. A membrane bound vesicle with hydrolyzing and digestive enzymes.
(.....)
3. A science of biology deals with the structure and function of tissues.
(.....)
4. Are non-membranous organelles involved in protein synthesis.
(.....)
5. A cell that has the ability to differentiate to different kinds of cells.
(.....)
6. The sites of energy production (ATP) in the cells. (.....)

- (4) ✓
7. The excretory units of flat worms. (.....)
 8. The control center of the cell and contains the genetic material (DNA).
(.....)
 9. Striated and multinucleate muscles. (.....)
 10. A type of cells that lack both nuclear membrane and membranous
organelles in their cytoplasm. (.....)
 11. A type of neurons transmits the nerve impulse from the brain to muscles
or glands. (.....)
 12. An epithelial tissue that lines the urinary bladder. (.....)
 13. Which type of muscles lines the stomach and ileum? (.....)
 14. A type of tissues that binds and supports other cells and organs.
(.....)
 15. The formation of sperms in testis. (.....)
 16. A type of neurons that connects the sensory to the motor neurons.
(.....)
 17. The union of male and female gametes to form zygote. (.....)
 18. The entrance of solid materials across the animal cell membrane.
(.....)
 19. The living content of the cell, and is formed of 90% water. (.....)
 20. The structural and functional unit of a living organism. (.....)

Third question: Answer five only of the following: (15 marks)

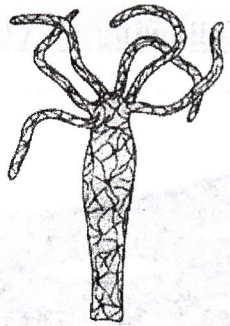
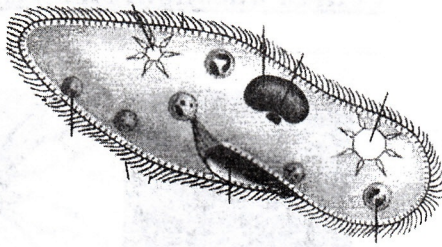
A. List Three differences only between chordates and insects.

Chordates	Insects
1.	
2.	
3.	

B. Complete the following table about cartilages

Type of cartilage	1-.....	2-.....	3-.....
Dominant fibers	Elastic	.....	The matrix is glassy
Location	.....	Intervertebral disc	.....

C. Identify and list three characteristics of animal A and B

 (A).....	 (B).....
1.	
2.	
3.	

D. What are the characteristics of stem cells? Explain the differences between embryonic and adult stem cells.

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.....

.....

E. List three differences only between epithelial and connective tissues.

Epithelia tissue	Connective tissue
1.	
2.	
3.	

F. Briefly, explain with drawing the structure and function of the cell membrane.

.....

.....

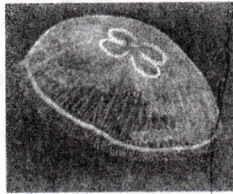
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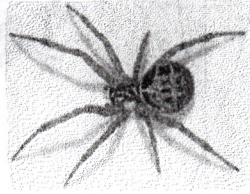
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Fourth question: Answer Five only of the following (10 marks)



(a.1)

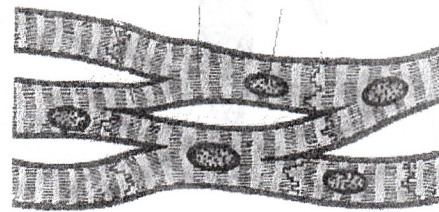


(a.2)

(a.1) Is it medusa or poly form?

(a.1) Identify the type of symmetry

(a.2.) Is it an insect? Why?

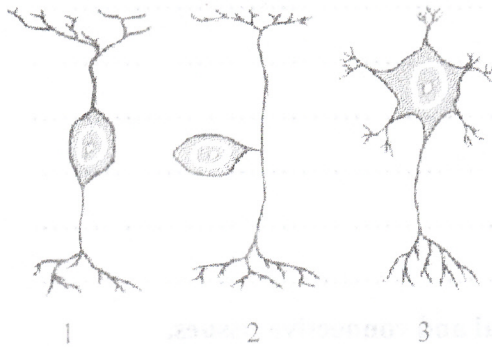


(b)

Type of muscle:.....

Description:.....

Location:



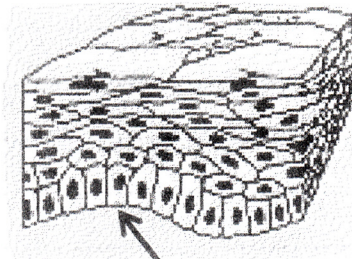
1

2

3

(c) Name only 1, 2, 3 and mention the general function of the neuron.

Function:



1

(d) Identify the epithelial tissue

Location:

Function:.....

Label 1:.....

(e) Draw a labeled diagram of a nucleus

(f) Name and draw only different types of simple epithelial tissue



Assiut University
Faculty of Science
Zoology Department



General Zoology Course
2nd Semester /June/2016



Time: 2 hour
Level: First
Course Code:100Z

Answer the following questions (50 marks)

Note: The exam in six pages

First question: Choose the best single correct answer (10 marks)

1. Nematodes are.....animals
 - a) Coleomate
 - b) A coelomate
 - c) Segmented
 - d) Pseudocoelomate
2. Blood, bones and cartilages originate from mesoderm?
 - a) True
 - b) False
3. The cytoskeleton of the animal cell includes
 - a) Microtubules
 - b) Microfilaments
 - c) Intermediate filaments
 - d) All
4.occurs only in the animal cell and play a role in cell division.
 - a) Lysosome
 - b) Ribosome
 - c) Centriole
 - d) Cell membrane
5. Each primary spermatocyte givessperms
 - a) Eight
 - b) Two
 - c) One and three polar bodies
 - d) Four
6. Which of these hormones regulate the calcium levels in the blood?
 - a) Oxytocin
 - b) Calcitonin
 - c) PTH
 - d) Both b and c
7. The first invertebrates to develop a complete digestive system are.....
 - a) Nematodes
 - b) Annelids
 - c) Flat worms
 - d) Cnidarians
8. How many successful divisions are required to go from a zygote to 64 blastomer stage?
 - a) 2
 - b) 4
 - c) 6
 - d) 8
9. The cleavage terminates (ends) by the formation of.....
 - a) Morula
 - b) Blastula
 - c) Gastrula
 - d) Organs

10.is characterized by having two nuclei.
 b) *Trypanosoma* sp. b) *Fasciola* sp. c) *Paramecium* sp. d) *Amoeba* sp.
11. If two organisms are in the same class, they must also be in the same:
 a) Genus b) Species c) Order d) Phylum
12. Tendon is a structure which connects.....
 a) A bone with another bone b) A muscle with a bone
 c) A nerve with a muscle d) A muscle with a nerve
13. Which one of the following is Not a characteristic of smooth muscles?
 a) Unstriated b) Found in stomach and ileum
 c) Flat cells with one nucleus d) Flat cells with many nuclei
14. Which organelles modify, sort and package proteins in the cell?
 a) Mitochondria b) Ribosomes c) Golgi complex d) Lysosomes
15. The following are the characteristics of Chordates except.....
 a) Notochord b) Tail c) Ventral nerve cord d) Dorsal nerve cord
16. Mitochondria are self-replicating organelle due to.....
 a) The presence of cristae b) The presence of their own DNA
 c) The ability to produce energy (ATP) d) Cellular respiration
17. What type of epithelial tissue is capable of stretching?
 a) Stratified squamous b) Stratified columnar
 c) Stratified cuboidal d) Transitional
18. The nucleus is found only in.....cell
 a) Prokaryotic b) Eukaryotic
19. *heterophyes* is a.....name.
 a) Genus name b) Species c) Kingdom d) Family
20. The transport of secretory proteins takes place through organelles in the order
 a) RER>Transport vesicle>Golgi>Secretory vesicle
 b) Transport vesicle>RER>Golgi>Secretory vesicle
 c) RER>Transport vesicle>Secretory vesicle>Golgi
 d) RER->Golgi->Transport vesicle>Secretory vesicle

Second Question: (A) Write the correct word or the scientific expression of the following (4 marks)

1. Which structure gives cnidarians their name?
(.....)
2. A science deals with the formation of embryos from the fertilized eggs.
(.....)
3. A type of eggs with much yolk in the vegetal pole.
(.....)
4. A type of cartilages with less white fibers and found in ear.
(.....)
5. A type of neurons that transmits the nerve impulse from the brain to muscles or glands.
(.....)
6. Strong, branched bundles of fibers and are made of collagen protein.
(.....)
7. A non-membranous organelles involved in protein synthesis.
(.....)
8. A type of digestive system with one opening (mouth only).
(.....)

Second Question: (B) Define only the following (4 marks)

1. Facilitated diffusion	
2. Unipolar neuron	
3. Goiter	
4. Neuroglia cells	
5. Spermatogenesis	
6. Lysosomes	
7. Exocrine gland	
8. Osteocytes	

Third Question: Answer the following (10 marks)

1. Write Three characteristics only of *Hydra* spp.

- a).....
b).....
c).....

2. List Three differences only between flat worms and segmented worms.

	Flat worms	Segmented worms
a)		
b)		
c)		

3. Write three characteristics only of stem cells and explain the difference between adult and embryonic stem cell.

- a).....
b).....
c).....

The difference between embryonic and adult stem cells:

.....
.....

Fourth Question: Answer Four only of the following (12 marks)

1. List Three characteristics only of Arthropods.

- a).....
b).....
c).....

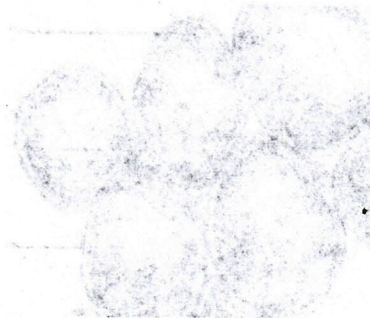
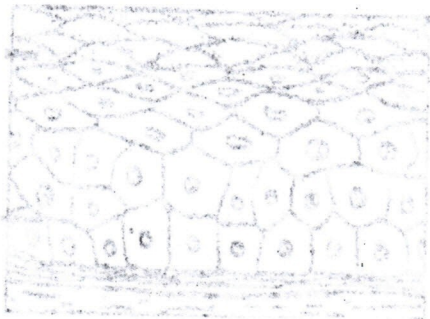
2. List three differences only between the characteristics of the connective and epithelial tissue.

	Epithelial tissue	Connective tissue
a)		
b)		
c)		

3. Complete the following table about hormones

Hormone	Function of the hormone	The secreting gland
Prolactin	.....	Pituitary
ADH	.....	.....
.....	Increases the level of glucose in the blood	Pancreas
Oxytocin	.....	.....

4. Explain with drawing the structure and function of the cell membrane.



5. Write one function only of the following:

- a) Cytoskeleton.....
- b) SER
- c) RER.....
- d) Nuclear pore.....
- e) Contractile vacuole.....
- f) Flame cell.....

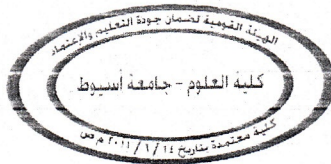
Fifth Question: Answer Five only of the following (10 marks)

(1) (2) (A) (1) Is it medusa or polyp form?..... (2) Type of symmetry:..... Is it an Arthropod?..... why?..... 	(B) The organ A is known as..... And produces..... And.....hormones.
(C) Identify the C.T..... Description:..... Location: Function:.....	(D) Identify the epithelial tissue Location: Function : Description:.....
1. 2. (E) Draw and mention the function only of Two types of simple epithelium	(F) Draw a labeled diagram of a cell nucleus

By Drs. Safaa Megaly, Ahmed Moustafa and Ali Mohamed
 With our best wishes



Assiut University
Faculty of Science
Zoology Department



First Semester General Zoology
Exam /June/2016



Time: 2 hours
Level: First
Course Code: 100

ليبار ضياعية

Answer the following questions (50 marks)

(The exam in 6 pages)

First question: Choose the best single correct answer (10 marks)

1. Animal cell possess centriole which is used in.....
 - a) Cell division
 - b) Formation of proteins
 - c) Secretion of enzymes
 - d) Protection
2. The excretory units of Fasciola are.....
 - a) Flame cells
 - b) Coxal glands
 - c) Protonephridia
 - d) None
3.is a three layered embryo.
 - a) Cleavage
 - b) Gastrula
 - c) Blastula
 - d) Morula
4. Which of these hormones regulate sugar in the blood?
 - a) Adrenalin
 - b) Insulin
 - c) Glucagon
 - d) Both b and c
5. What type of epithelial cells is taller than they are wide?
 - a) Squamous
 - b) Columnar
 - c) Stratified
 - d) Cuboidal
6. The first invertebrates to develop nervous system are.....
 - a) Sponges
 - b) Annelids
 - c) Flat worms
 - d) Cnidarians
7. How many divisions are required to go from a zygote to 64 cell embryo stage?
 - a) 2
 - b) 4
 - c) 5
 - d) 6
8. Homeostasis is controlled by hormones and.....
 - a) Enzymes
 - b) Circulatory system
 - c) Nervous system
 - d) proteins

(2)

9. Which organelles modify, sort and package proteins in the cell?

- a) Mitochondria b) Ribosomes c) Golgi complex d) Lysosomes

10. Blood originates from which germ layer?

- a) Endoderm b) Mesoderm c) Ectoderm d) Mesoendoderm

11. The sleeping sickness disease is caused by.....

- a) *Trypanosomasp.* b) *Fasciola sp.* c) *Plasmodium sp.* d) *Ascaris sp.*

12. Oogenesis is the formation of.....gametes.

- a) Male b) Female c) Both a and b d) None

13. Prolactin secreted by.....

- a) Thyroid gland b) Pineal gland c) Anterior pituitary d) Posterior pituitary

14. Stratified squamous epithelium (Keratinized) forms.....

- a) Lining of esophagus b) Lining of ureter
c) Epidermis d) Lymphoid organs

15. A small dense structure inside the nucleus which produces ribosomes.

- a) RER b) Nuclear membrane c) Golgi complex d) Nucleolus

16. If two organisms are in the same phylum, they must also be in the same:

- a) Genus b) Species c) Class d) Kingdom

17. T₃, T₄ andare hormones secreted by thyroid gland.

- a) Aldosterone b) Calcitonin c) Adrenaline d) Melatonin

18. Ligament is a structure which connects.....

- a) A bone with another bone b) A muscle with a bone
c) A nerve with a muscle d) A muscle with a nerve

19. The tail of a phospholipid molecule is.....

- a) Hydrophobic b) Hydrophilic
c) Neutrophilic d) Hydrostatic

20. Mitochondria are self-replication organelle due to.....

- a) The presence of cristae b) The presence of their own DNA
c) The ability to produce energy (ATP) d) Cellular respiration

Q2: (A) Write the correct word or the scientific expression of the following: (8 marks)

1. A science of biology that study the development of an organism from a fertilized egg to the formation of a full embryo.
(.....)
2. A powerhouse of the cell that responsible for cellular respiration
(.....)
3. A type of cells having both nuclear membrane and membranous organelles in their cytoplasm. (.....)
4. A science of biology deals with the structure and function of cells.
(.....)
5. A type of cartilage appears glassy located in the trachea.
(.....)
6. Animals without body cavity (.....)
7. A type of connective tissue that supports and protects body organs and stores fat as food storage areas. (.....)
8. Glands release their secretion in the blood directly without ducts.
(.....)

Q2: (B) Complete the following sentences

1. The neurons are classified into.....,.....and.....
..... according to the number of processes arising from the body.
2. Gametogenesis includes.....which occurs in testis,
and.....which occurs in.....
3. Rough endoplasmic reticulum filed with.....It makes.....
4. Decreasing of growth hormone causes a disease known as.....
While the deficiency of insulin in blood causes a disease known as.....

5. Animals classified according to the number of body cells to.....and
.....
6. Human body is formed of four main tissues, these are.....
.....,.....and.....

Q3: Answer the following (10 marks)

1. Write Four characteristics of Phylum Protozoa.

- a).....
- b).....
- c).....
- d).....

2. List Four differences only between chordates and invertebrates?

	Chordates	Invertebrates
a)		
b)		
c)		
d)		

3. Write one function only for the following:

- a) Cell membrane.....
- b) Connective tissue.....
- c) Nucleus.....
- d) Contractile vacuole.....
- e.) Cnidocytes or nematocytes.....

Q4: Answer Four only of the following**(12 marks)****1. Complete the following table about different types of muscles.**

Type of muscles	1.....	2.....	3.....
Action	.....	.....	Involuntary
Striation	Striated	.....	.....
Number of nucleus	.....	.....	.....
Location	.....	Wall of the heart	.....

2. List three differences only between eukaryotic and prokaryotic cell?

	Eukaryotic cell	Prokaryotic cell
a)		
b)		
c)		

3. Complete the following table about hormones

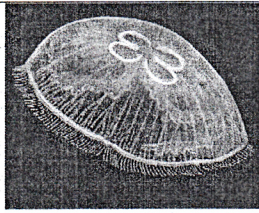
Hormones	Function of the hormone	The secreting gland
Growth h.	.....	Pituitary
Thyroxin h.	.....	.....
.....	Regulates sodium and potassium levels in blood	Adrenal gland
Melatonin h.	.....	.....

4. Complete the following table about different types of cartilages.

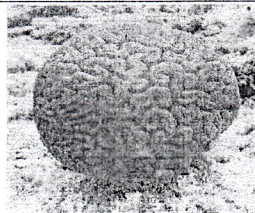
Type of cartilage	1-.....	2-.....	3-.....
Dominant fibers	.....	White fibers	Has less fibers and the matrix is glassy
Location	External ear	.....	.....

Q5: Answer Five only of the following

(10 marks)



(1)



(2)

(A)

(1) Is it medusa or polyp form?

.....

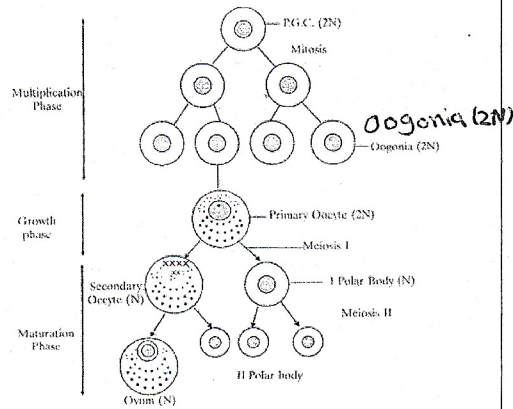
(2) This photo refers to.....



(B)

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

(2) This disease caused by.....

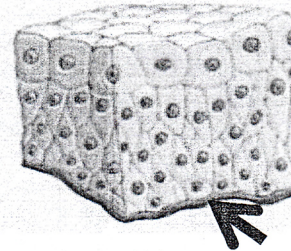


(C)

Identify the process.....

Location

Function.....



(D)

Identify the epithelial tissue

Location:

Function (1 only):.....

The arrow refers to.....

1.

2.

3.

4.

(E) Draw only different simple epithelium

(F) Draw a labeled diagram of mitochondria

By Dr. Zeinab Elbakary & Dr. Hanan Waly (With our best wishes)