

- (2) Identify specimen 2
- (3) Identify and describe label B of specimen 3

PART III: Embryology and taxonomy (20 marks)

(A) Choose the best single correct answer (10 marks)

1. How many successive divisions are required to go from a zygote to 32 cell embryo stage?
a) 4 b) 8 c) 3 d) 5
2. Which of the following is the correct scientific name for a house cat?
a) *Felis domesticus* b) *Felis Domesticus*
c) *felis Domesticus* d) *felis domesticus*
3. Polyp and medusa are forms of.....
a) Poriferans b) Cnidarians c) Protozoans d) Nematodes
4. If two organisms are in the same phylum, they must also be in the same:
a) Class b) Species c) Family d) Kingdom
5. Annelids are animals
a) Acoelomate b) Pseudocoelomate c) Coelomate
6. In the vertebrates the nerve cord is
a) Ventral and solid b) Dorsal and hollow
c) Dorsal and solid d) Ventral and hollow
7. Protozoa are characterized by
a) Multicellularity b) Unicellularity c) All are parasites
8. In invertebrates the blood flows in the dorsal blood vessel
a) Backward (head - tail) b) Forward (tail - head)
9. The circulatory system is absent in Phylum
a) Arthropoda b) Annelida c) Mollusa d) Platyhelminthes
10. A phylum characterized by the presence of nematocysts
a) Nematoda b) Platyhelminthes c) Cnidaria d) Cestoda

(B) List FIVE characteristics only of the following phyla (5 marks):

1- Phylum Arthropoda

2- Phylum Cnidaria

(C) Complete the following sentences (5 marks)

1. A process of male gametes formation is called
2. What is the name of the body cavity that is completely surrounded by tissue derived from the mesoderm?
3. A type of eggs that have a little amount of yolk concentrated in the center of the egg around the nucleus.....
4. A repeated mitotic division of a fertilized egg, producing a mass of cells is
5. A group of animals have similar morphological characteristics and can breed freely with each other to produce fertile offspring resemble their parents

With our best wishes



Assiut University
Faculty of Science
Zoology Department



First Semester General Zoology Exam (05/01/ 2017)

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

PART I: Cytology and physiology (15 marks)

(A) Write only the function of TEN of the following

1. Golgi apparatus
2. Cholesterol molecules of plasma membrane
3. Lysosomes
4. Intermediate filaments proteins
5. Tubulin protein
6. Smooth endoplasmic reticulum
7. Oxytocin hormone
8. Calcitonin hormone
9. Nuclear pores
10. Pancreatic Beta and Alpha cells
11. Prolactin hormone
12. Insulin hormone

(B) Please put correct OR false

1. Actin is the abundant protein at the nucleus
2. Thyroid stimulating hormone and prolactin are secreted by the hypothalamus
3. Gigantism occurs as a result of low GH after puberty
4. Absorption of glucose during excretion by the kidney cells occurs by facilitated passive diffusion
5. The head of phospholipids at the plasma membrane is hydrophilic
6. Ribosomes are nonmembranous organelles
7. The mitochondria is the only organelle that has its own DNA
8. The following are correctly arranged from simple to complex : Cells , organelles, tissues, organs
9. Secretion of insulin and glucagon is controlled by negative feedback mechanism
10. Oxytocin hormone production during labor is controlled by positive feedback mechanism.

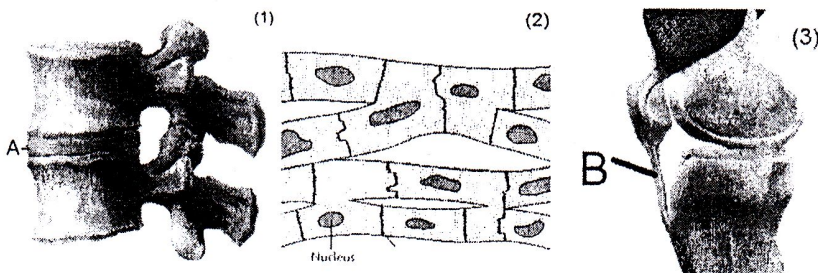
PART II: Histology (15 marks)

(A) Write notes on the following:

- 1- Stratified epithelium
- 2- Connective tissue fibers
- 3- Why blood is considered as atypical connective tissue?
- 4- Compare between loose and dense connective tissue proper subtypes in terms of fibers, cells, function and location (in a table).
- 5- Structural and functional classification of neurons (with drawings when possible).

(B) Look at the following and answer the questions:

(1) Identify and describe label A of specimen 1



Q3: Write in details about nutrition and obesity. (10 marks)

Q4: Write briefly about the following items: (10 marks)

- The four ways of nutrient absorption.
- Hormones that affect the digestion.
- None starch polysaccharides (NSPs).
- Rickets.

Q5: Write in details about the marasmus disease. (10 marks)

انتهت الأسئلة

Best wishes

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Answer all the following questions:

Q1: Write in details about the common disorders that affect the esophagus, stomach, gallbladder, and small and large intestine. (10 marks)

Q2: Choose the correct answer (one answer only): (10 marks)

1. Fat-soluble nutrients are absorbed into :
a)- lymphatic system
b)- lymph nodes
c)- circulatory system
d)- spleen
2. The hormone of hunger is:
a)- secretin
b)- enterogastrones
c)- Ghrelin
d)- gastrin
3. The product that enters the Krebs's cycle is :
a)- ATP
b)- acetyl coenzyme A
c)- nitrogen
d)- fats
4. Deoxyribose is a:
a)- triose monosaccharide
b)- hexose monosaccharide
c)- pentose monosaccharide
d)- disaccharide
5. Glycogen is a type of :
a)- structural polysaccharide
b)- storage disaccharide
c)- storage polysaccharide
d)- storage lipo-polysaccharide
6. Unsaturated fats can be converted to saturated fats by:
a)- hydration
b)- halogenation
c)- hydrochlorination
d)- hydrogenation
7. Chymotrypsin is :
a)- gastric enzyme
b)- pancreatic enzyme
c)- intestinal enzyme
d)- liver enzyme
8. Malnutrition is a term referring to:
a)- decreased consumption of nutrients
b)- increased consumption of nutrients
c)- inadequate nutrition
d)- all of the above
9. Cellulose- and non-cellulose polysaccharides are known as:
a)- dietary fibers
b)- collagen fibers
c)- storage polysaccharides
d)- elastic fibers
10. The dietary sources of essential fatty acids are :
a)- Sunflower oil
b)- Sesame oil
c)- Coconut oil
d)- all of the above

انظر باقي الأسئلة خلف الصفحة

8. The following sentence can be inserted into the passage:

Instead they feed and breed in the frigid waters and sea ice of the southern Ocean.

Where would this sentence best fit in the passage? Choose the number to indicate where you would add the sentence to the passage.

- a. (i)
- b. (ii)
- c. (iii)
- d. (iv)

B. Choose the correct answer that fits in the missing space.

Humans, unlike many other animals, are **(9)** (omnivores – herbivores – carnivores). We require both vegetable matter and meat to be fully healthy (although some humans manage to survive reasonably healthily whilst consuming no **(10)** (food – animal products) at all, finding their protein mainly in **(11)** (carrots – rabbits – nuts and seeds)). To carry out its many complicated functions, the human body requires **(12)** (lots of cabbage – only one form of nutrition – different chemicals and substances). All of the nutrition we take in can be put in one of seven categories. These are; carbohydrates, proteins, fiber, minerals, vitamins, fats and **(13)** (sugar – water). Carbohydrates provide the body with **(14)** (fiber – energy – antibodies). **(15)** (Proteins – Fats – Vegetables) allow the body to repair itself and grow. Fiber **(16)** (cleans – washes – aids) the digestive system. Minerals and vitamins are required for many reasons. Deficiencies in any vitamin or mineral can lead to **(17)** (rabies – illnesses – failure). Vitamins are essential for normal growth and development. Fats are **(18)** (often – never) unnecessary, and many are bad for you. Regarding water, If it is not consumed, the body will **(19)** (dehydrate – go yellow – be fine). The body loses water in excretion, sweating and **(20)** (eating – drinking – breathing – sleeping). So, it is advised that you should have a balanced diet.

Best Wishes

Dr. Marwa M. Abdelmotaleb

Dr. Manal M. Abdelnaser



First Semester Exam - December 2017
Students: First Year
Course: English Language (1)
Time Allowed: Two Hours
Total Score: 50 Marks
Date: 20-12-2017

الوقت المسموح به - ساعتان



Answer the following questions.

I. Writing

A. Choose the topic sentence that best fits the paragraph.

(10 marks)

- 1) The term *spices* is a pleasant one, whether it connotes fine French cuisine or a down-home, cinnamon-flavored apple pie. _____. In the past, individuals traveled the world seeking exotic spices for profit and, in searching, have changed the course of history. Indeed, to gain control of lands harboring new spices, nations have actually gone to war.
- a. The taste and aroma of spices are the main elements that make food such a source of fascination and pleasure.
- b. The term might equally bring to mind Indian curry made thousands of miles away and those delicious barbecued ribs sold on the corner.
- c. It is exciting to find a good cookbook and experiment with spices from other lands—indeed, it is one way to travel around the globe!
- d. The history of spices, however, is another matter altogether, and at times, it can be filled with danger and intrigue.
- 2) It weighs less than three pounds and is hardly more interesting to look at than an overly ripe cauliflower. _____. It has created poetry and music, planned and executed horrific wars, and devised intricate scientific theories. It thinks and dreams, plots and schemes, and easily holds more information than all the libraries on Earth.
- a. The human brain is made of gelatinous matter and contains no nerve endings.

of a lifetime!

B) For the following questions, a topic sentence is given. Choose the sentence that best develops or supports it.

- 3) If a car suddenly begins to skid on ice, a driver's instinctive reaction might be the wrong one.
- a. Skids can be a terrifying experience.
- b. Cars can be very unpredictable on ice.
- c. Many people instinctively turn the wheel in the wrong direction, making the skid worse.
- d. New tires can help reduce the risk of skidding on ice.
- 4) In *Moby Dick*, Herman Melville wrote that the whale men were "enveloped in whale lines," that each man relied on the others during moments of danger.
- a. The small boats that pursued the whales left the whaling ship far behind; each man in a boat had to depend on the others to stay alive.

- b. Once the whale was harpooned, the whale line unraveled so fast that water had to be poured on it to keep it from smoking.
- c. The whale line was the rope, dozens of yards long, that attached to the harpoon; it was unraveled under the seats of all the men metaphorically connecting each man to the next.
- d. One wrong move and the line would snap a man right out of the boat; thus, his life depended on whether the crew would cut the whale loose to save him, or leave him in the ocean during the heat of the hunt.

II- Grammar

(15 Marks)

Choose the correct answer.

1. Which of the following is a sentence fragment, or NOT a complete sentence?

- a. Hearing the thunder, the lifeguard ordered us out of the water.
- b. Turn off the lights.
- c. Sunday afternoon spent reading and playing computer games.
- d. I was surprised to see that my neighbor had written a letter to the editor.

2. Three of the following sentences are either runons or comma splices. Which one is NOT a faulty sentence?

- a. The newspapers are supposed to be delivered by 7:00, but I am usually finished before 6:45.
- b. I called the delivery service this morning, they told me the shipment would arrive on time.
- c. Look in the closet you should find it there.
- d. I was the first to sign the petition Harry was second.

3. Which of the following underlined verbs is NOT written in the correct tense?

Last year, I (a) vacationed in Jamaica. I (b) sunbathe on the beach every morning. In the afternoons, I (c) explored the island, and when evening came, I (d) couldn't wait to change my clothes and try another local restaurant.

- a. vacationed
- b. sunbathe
- c. explored
- d. couldn't wait

4. Which version has a parallel structure?

- a. We write for a variety of purposes: in expressing our feelings, to convey information, to persuade, or to give pleasure.
- b. We write for a variety of purposes: to express our feelings, convey information, persuasion, or giving pleasure.
- c. We write for a variety of purposes: an expression of our feelings, conveying information, persuade, or to give pleasure.
- d. We write for a variety of purposes: to express our feelings, to convey information, to persuade, or to give pleasure.

5. Which of the sentences is clearly and correctly written?

- a. Driving along the country road, a deer ran in front of us.
- b. A deer ran in front of us while driving along the country road.
- c. As we were driving along the country road, a deer ran in front of us.
- d. Running in front of us, we saw the deer, driving along the country road.



First Semester Exam - December 2017
Course: English Language (2)
Time Allowed: Two Hours
Total Score: 50 Marks
Date: 20-12-2017



Answer the following questions.

I- Terminology.

(15 Marks)

Give the full definition of only **FIVE** of the following:

- | | | |
|---------------|--------------------|-------------|
| 1. Science | 2. Physical change | 3. Matter |
| 4. Technician | 5. Condensation | 6. Freezing |

II- Morphemes and word formation.

(15 Marks)

A. Write the antonym of the words indicated by adding the proper affix.

- | | | | | |
|----------|-------------------|--------------|----------|---------|
| 1. Legal | 2. Centralization | 3. Conductor | 4. Sense | 5. Lead |
|----------|-------------------|--------------|----------|---------|

B. By using affixes, give the noun-agent of:

- | | | | | |
|--------|-------------|--------------|-----------|------------|
| 1. Art | 2. Electric | 3. Sculpture | 4. Engine | 5. Mission |
|--------|-------------|--------------|-----------|------------|

C. Name the process of word formation that produced the following.

- | | | | | |
|---------|---------------|--------------|--------|------------|
| 1. NATO | 2. Skyscraper | 3. Must (n.) | 4. MP3 | 5. Babysit |
|---------|---------------|--------------|--------|------------|

III- Reading comprehension

(20 Marks)

A. Read the text then answer the following questions.

The largest of the world's 17 penguin species, emperor penguins stand nearly four feet and weigh up to 90 pounds. These sea birds never set foot on dry land. (i) An estimated 200,000 breeding pairs live in about 40 penguin colonies scattered along the coasts of Antarctica. (ii) Their waterproofed feathers, flipper-like wings, and streamlined bodies make them excellent swimmers and divers. On ice they can travel distances up to 50 miles by "tobogganing"—gliding on their stomachs while pushing with their wings and feet.

(iii) Emperor penguins breed during the Antarctic winter in some of the world's most severe weather conditions (temperatures of -80 F and winds up to 112 miles per hour). Breeding during the winter allows chicks to mature in midsummer when food is plentiful. After the female lays a single egg, the male holds it in a fold of skin near his feet for a two-month incubation period. During this time he huddles with other males to keep warm. (iv) The male moves very little and does not eat, usually losing up to a third of his body weight. Meanwhile the females go to sea and dive for fish so that when they return they can feed and care for the newly hatched chicks. After the male restores his body weight, both parents take turns caring for their young.