



Benha University
Faculty of Science
Department of Zoology

General Zoology 2 (105 Z)

Semester: Second

Date: 11/6/2019

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Level: First level

Sepe: Zoology

Exam time: 1 hr

A. Complete each of the following: (16 marks)

1. Respiration includes ventilation , gas exchange, and oxygen utilization.
2. A neuron is divided into the soma or cell body, dendrites, and axon.
3. The large intestine is made up of cecum and colon.

B. Mention the functions of the following: (6 marks)

1. The pancreas:

- Secretes digestive enzymes into the duodenum, the first segment of the small intestine. These enzymes break down protein, fats, and carbohydrates.
- The pancreas also makes insulin, secreting it directly into the bloodstream. Insulin is the chief hormone for metabolizing sugar.

2. The circulatory system role against blood loss and against pathogens:

The circulatory system protects against blood loss from injury and against pathogens, including foreign microbes and toxins introduced into the body.

- Clotting. The clotting mechanism protects against blood loss when vessels are damaged.
- Immune. The immune function of the blood is performed by the leukocytes (white blood cells) that protect against many disease-causing agents (pathogens).

3. Glandular and interstitial cells in *Hydra*:

- Glandular cells: These cells pour their digestive enzymes into the entron for the extracellular digestion.
- Interstitial cells: They are transformed to any other type of cells.

C. Correct the underline words in the following sentences: (10 marks)

1. Excretion in platyhemintes is performed by interstitial cells. (flame cells)
2. Coelenterata possess characteristic stinging cysts, known as the glandular cell. (nematocysts)

