



DAMIETTA UNIVERSITY
FACULTY OF SCIENCE
ZOOLOGY DEPARTMENT

Final TERM EXAM. January 2025



المستوى الرابع (لائحة الساعات المعتمدة) برنامج البيولوجيا الجزيئية
البيولوجيا الجزيئية للأعصاب (٤٠٥ ح)

Date: 11/ 1 / 2025

Time: 2 Hours

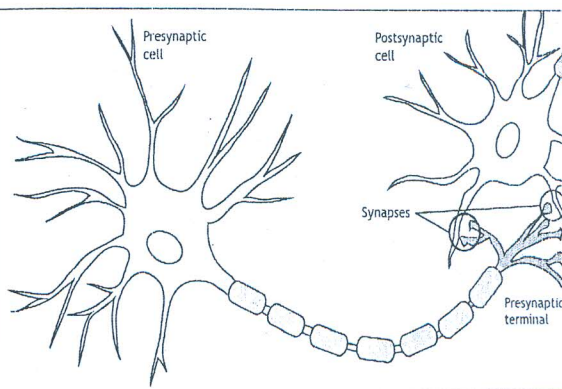
Mark: 90

الامتحان في ورقتين

Question One (30 Marks):

Look at this figure and answer the following:

- 1-What are Synapses?
- 2-What is the function of Synapse?
- 3-What are the components of Synapse?
- 4-What is the functional classification of Synapse?
- 5-What is the anatomical classification of Synapse?



Question Two (30 Marks):

Complete the following:

-1.....connective tissue membranes invest the brain and the spinal cord.
- The main functions of the pons include2... and...3.....
-4...is a small structure, located right above the brain stem responsible for relaying sensory information from the5.....
- Nervous tissue is organized as...6....and ...7.....
- Dendrites are...8.....
- Neurotransmitters are removed through ...9.....and ...10.....
- Receptors are11.....
-12..... bind directly to DNA regulating the expression of adjacent genes; hence these receptors are classified as13.....

-There are three general categories of cell-surface receptors such as.....14....and ...15.....

Question Three (20 Marks):

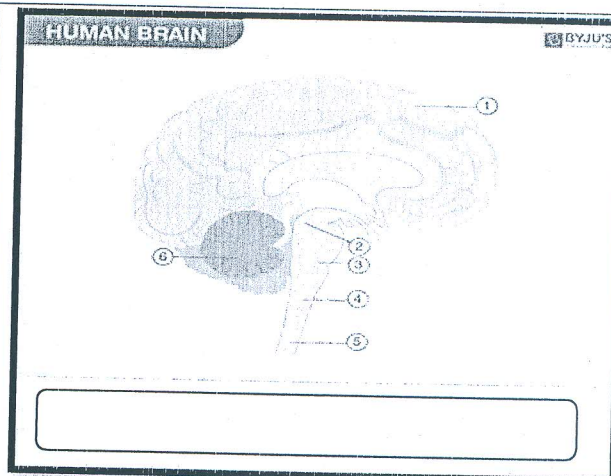
What is the difference between the following:

- 1- Fibrous and Protoplasmic Astrocytes:
- 2- Excitatory and Inhibitory Neurotransmitters
- 3-Echoic and Haptic memory
- 4-Episodic and semantic memory.

Question Four (10 Marks):

In this figure:

- The major parts of the human brain are: fore, mid and hind brain.
- Mention only the name of these parts.



With Best Wishes

Dr. Lamiaa Deef

Dr. Shreen Fahmy

Head of Department: Prof.dr. Ayman Heder