

Aswan University

MS." Medical Physiology"

Faculty of Medicine

Final Physiology Exam "Third Paper".

Dep. of Medical Physiology

Time allowed: 3 hours.

Sunday, 22/ 5 /2022

Total Marks: 200

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Answer the following questions:

**Central Nervous System:**

**(130 Marks)**

1. A 60 year old man presents in the clinic with complaints of dizziness, feeling like the room is spinning , loss of balance, ringing in the ears and sweating. Symptoms and signs are in consistence with Meniere disease .

i. Define Meniere disease and mention its underlying pathophysiology? (15 Marks)

ii. What is meant by vertigo, mention its causes and describe its mechanism? (15 Marks)

iii. What are the autonomic effects of semicircular canal stimulation? (10 Marks)

2. Discuss functions of the basal ganglia and ONE of its disorders? (30 Marks)

3. Mention types of stretch reflex and FIVE of its properties (30 Marks)

4. Describe the normal adult brain waves? (30 Marks)

**Special sense:** (50 Marks)

Give an account on:

1-Transmission of sound waves in the cochlea? (15 Marks)

2- Attenuation reflex? (10 Marks)

3- Light and dark adaptation in vision? (15 Marks)

4- Mechanism of accommodation? ? (10 Marks)

**Autonomic Nervous System (ANS):** (20 Marks)

1- Compare between functions of sympathetic and parasympathetic supply to pelvic organs?. (10 Marks)

2- Mention types of acetylcholine receptors and drugs acting on them? (10 Marks)

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Good Luck. Prof. Mahmoud Raafat & Exam committee