Physiology

Lecture 1 is associated with:

1.membranous labyrinth السكرتيرة تبعت الإذن هي ال

2.vestibular system is associated with knowing the space around

3.vestibular system is associated with change in speed

4.utricle is horizontal

5.kinocilium with k+ channels

6.macula is the sensory receptors

7.vestibular system is associated with predicting

8.cerebullum is associated with calculations

9.cerebal cortex associated with conscious

Lecture 2 is associated with:

1.Broca's area is associated with speech and expression

2.premotor area is associated with mirror neurons and planning

3.supplementary area is associated with bilateral movement

4.voluntary eye movement area is associated with blinking and if injected the patient becomes "سرحان"

5.hand skills area if injected it causes apraxia

6. 5th layer contains pyramidal cells

7.dynamic signals are associated with rapid force

8.static signals are associated with maintenance of contraction

9.corticospinal tract contains betz cells

10.pyramidal pathway=direct motor pathway

Lecture 3 (basal nuclei) is associated with:

1.basal nuclei has three pathways

2.direct pathway which starts from the cortex that excites striatum which inhibits globus pallidus internus which it's function is to inhibit (so inhibition of the inhibition =excitation(no inhibition)) so the overall signal is excitation (excitation +inhibition+inhibition=excitation)

3.indirect pathway which starts from the cortex which excites striatum that inhibits the globus pallidus externus that its function is to inhibit (inhibition of the inhibition =excitation(no inhibition)) so continuing excitation of subthalamic nucleus that excites globus pallidus internus which sends the final signal which is inhibition.

4.nigrostriatal divided into: d1 pathway which is excitation of the direct pathway and d2 which is the inhibition of the indirect

Lecture 4 is associated with:

1.gamma are the ends of intrafusal fibers that are contractile

2.the central part of the intrafusal is non contractile

3.nuclear bag fibers which are large and dynamic and it is could [1a] and it is primary

4.nuclear chain fibers, which are secondary, are slow and static

5.stretch spindles are monosynaptic ,ipsilateral ,and reciprocal which prevents conflict

Lecture 5 is associated with:
1.RAS is associated with alertness and prevents sensory overload
2.pontine nuclei is associated with excitation of antigravity muscles
3.medullary nuclei is associated with inhibition of antigravity muscles

Lecture 6 is associated with:
1.emotions are related to olfaction
2.pineal gland is related to melatonin and it's located in the epithalamus
3.suprachiasmatic nucleus is related to melanopsin and it's located in the hypothalamus
4.hypothalamus is related to eating ,drinking and hormones
5.hippocampus is related to memory consolidation and hyperexcitability seizures
6.amygdala is related to behavioral, fear and anxiety

Lecture 7 is associated with
1.memory are three types: explicit which is associated with learning ,enplicit the procedural one and working memory which is related to the prefrontal area
2.memory consolidation is in the hypocampus

Lecture 8 is associated with:
1.LGB is associated with vision
2.MGB is associated with hearing
3.wrenicke area is associated with intellectual meaning and facial recognition
4.broca area is associated with formation of words and articulation of mouth muscles
5.angular gurus is associated with visual meaning
6.broca area is mainly in the left hemisphere
7.prefrontal area is associated with social life ,solving problems ,ambition and changing in personality

Lecture 9 is associated with:
1.vermis zone is associated to posture

2.intermediate zone is associated to limbs movement
3.vestibulocerebullum is associated with rapid changes and prediction
4.spinocerebullum limbs and tremors
5.cerebrocerebullum is associated with storage and planning

Lecture 10 is associated with:
1.REM stage is associated with dreaming and involuntary movements
2.spindles are related to stage 2 of sleep
3.alpha is the sleeping stage
4.beta wakefulness
5.delta is associated with deep sleep
6.absence of petit mal is associated with staring