Semmelweis University
Faculty of Medicine
Academic year 2019/2020

November 3, 2019

EM II MIDTERM ANNOUNCEMENTS

The second midterm is an **e-learning type written test** held during the 10th study week.

Time and place:

EM 1-6	November 12, 2019 (Tuesday)	12.45 – 13.30	Histology laboratory
EM 7-12	November 15, 2019 (Friday)	12.00 – 12.45	Histology laboratory
EM 13-17	November 15, 2019 (Friday)	14.00 – 14.45	Histology laboratory

Course of the midterm examination

The test is composed of altogether 20 simple and multiple choice questions. Altogether 20 points may be collected, passing rate is 50%. Writing time: 30 minutes.

There will be several question associated with drawings including a „drag and drop" task where the correct answers will have to be selected and pulled to the boxes attached to arrows.

(See the sample/practice test in moodle https://itc.semmelweis.hu/moodle/course/view.php?id=1003 or the brain maps/cross sections at *semmelweis.hu/anatomia/files/2019/10/brainstem-engl.doc* ***)***

Detailed topic list:

Cell types of the CNS and PNS - type of neurons, receptores, synapses, neurotransmitters;

Microscopy of the parts of the CNS

- ***spinal cord*** - grey matter: nuclei and Rexed laminae; white matter: content of the columns, tracts; dorsal root ganglia, dorsal roots, ventral roots, communicating branches; proprioceptive, nociceptive, autonomic reflexes;
- ***brain stem*** - location and character/type of the nuclei; ascending and descending pathways; reflex arc of mastication;
- ***cerebellum*** – composition/parts of the celrebellum; cell types, , microcircuitry of the cortex; deep nuclei, connectivity - afferent and efferent tracts contained in the cerebellar peduncles;
- ***diencephalon*** – nuclei and connectivity of the thalamus (hypothalamus)
- ***cerebral cortex*** – Brodmann areas; cortical types (granular – agranular, paleo-, archi-, neocortices); cortical laminations; connectivity of the cortical areas (transmitters);
- ***deep cerebral grey matter*** – components and connectivity of the basal ganglia (transmitters);

Functional systems

- **sensory tracts/systems** - epicritical and protopathic sensitivity;
- ***motor tracts/systems*** – pyramidal and „extra"pyramidal connections
- ***location of the tracts*** within the internal capsule, cerebral peduncle, cerebellar peduncles etc;

Cranial nerves

Nuclei and branches, innervation pattern (n.b. only the name of the extraocular muscles)

Autonomic nervous system

parasympathetic and sympathetic parts (nuclei and ganglia)

*The further topics **will not form part** of the midterm examination: development of the nervous system; limbic system; organs of special senses; hypothalamo – hypophysial and endocrine systems.*

Please make sure you know your SeKA name and password. Attendance at the midterm is obligatory, in case of an absence a retake test will be offered during the following Histology laboratory class.

Dr. Andrea D. Székely
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Course Director