

Topics and study materials for the 4rd credit test

General medicine

2019/2020

Nervous system, Kidneys and urinary tract

1. Nervous system

- a) Motor disorders, classification, terminology, symptomatology, lower and upper motor neuron sy., extrapyramidal disorders – hypertonic (Parkinson dis.), hyperkinetic (classification, Huntington dis.), cerebellar disorders
- b) Neuromuscular disorders, Myasthenia gravis
- c) Musculopathies, classification, Duchenne and Becker sy.
- d) Somatosensitive disorders, classification, terminology, symptomatology, pain
- e) Spinal cord injury, classification, terminology, symptomatology; spinal shock; dissociation sy., Brown-Séquard sy.
- f) Neurodegenerative diseases, classification, terminology, genetic basis, inclusions diseases (taupaties, amyloidosis, Lewy bodies)
- g) Dementia, classification, causes, Alzheimer disease
- h) Demyelinating diseases, classification, etiopathogenesis, Multiple sclerosis
- i) Epilepsy, classification, causes, symptomatology
- j) Vegetative dysfunction, classification, terminology, symptomatology
- k) Intracranial pressure and herniation sy., bleeding
- l) Cerebrovascular stroke, ischemic, hemorrhagic
- m) Sleep disorders, classification, dissomnias, parasomnias
- n) Disorders of higher nervous system, memory disorders, impaired intellect, dyspraxia, agnosia, aphasia

Study materials

- Unit 10 Nervous System; Ch 34 Organization and Control of Neural Function, p. 821 – 853; Ch 35 Somatosensory Function, Pain, and Headache, p. 854 – 879; Ch 36 Disorders of Neuromuscular Function, p. 880 – 915; Ch 37 Disorders of Brain Function, p. 916 – 954 In: Porth, C.M. (Ed.) Essentials of pathophysiology, 4rd Edition, Wolters Kluwer/Lippincott Williams & Wilkins, 2011, ISBN-13: 978-1-4511-9080-9.
- Unit V, Ch 15 Structure and Function of the Neurologic System, p. 447 – 1128; Ch 16 Pain, Temperature regulation, Sleep and sensory Function, p. 484 – 506, Ch 17 Alterations in Cognitive System, Cerebral Hemodynamics, and Motor Function, p.527 – 580, Ch 18 Disorders of the Central and Peripheral nervous Systems and the Neuromuscular Junction, p. 581 – 626, Ch 20 Alterations of Neurologic Function in Children; Epilepsy, p. 678 – 681. In: McCance, K.L., Huether, S.E. (Ed.) Pathophysiology, 7th Edition, Mosby, Elsevier Inc., 2014, ISBN: 978-0-323-08854-1.
- Recommended: lectures, tutorials, data on dept. web; Other reading: pract. seminars, internet resources (Wikipedia, etc.).

2. Kidneys and urinary system

- a) Manifestation of renal diseases, physical and chemical characteristics of urine, proteinuria, hematuria - classification
- b) Acute and chronic renal failure, etiology, pathogenesis, symptoms, acute tubular necrosis, uremic syndrome
- c) Glomerulopathies, classification, etiopathogenesis, immunopathology, nephritic and nephrotic sy.
- d) Tubulopathies, congenital, acquired
- e) Tubulointestinal diseases, classification, pyelonephritis
- f) Renovascular diseases, blood pressure regulation, hepatorenal sy.
- g) Urolithiasis, classification, mechanisms, obstructive disorders of urinary tract

Study materials

- Unit 7 Kidney and Urinary Tract Function; Ch 24 Structure and Function of the Kidney, p. 599 – 616; Ch 25 Disorders of Renal Function, p. 617 – 638; Ch 26 Acute Kidney Injury and Chronic Kidney Disease, p. 639 – 655; Ch 27 Disorders of the Bladder and Lower Urinary Tract, p. 656 – 674 In: Porth, C.M. (Ed.) Essentials of pathophysiology, 4rd Edition, Wolters Kluwer/Lippincot Williams & Wilkins, 2011, ISBN-13: 978-1-4511-9080-9.
- Unit XI, Ch 37 Structure and Function of the Renal and Urologic Systems, p. 1319 – 1339; Ch 38 Alterations of Renal and Urinary Tract Function, p. 1340 – 1375. In: McCance, K.L., Huether, S.E. (Ed.) Pathophysiology, 7th Edition, Mosby, Elsevier Inc., 2014, ISBN: 978-0-323-08854-1.
- Recommended: lectures, tutorials, data on dept. web; Other reading: pract. seminars, internet resources (Wikipedia, etc.).

Composition of the test

Multiple choice (30) Approximate composition:

1. Nervous system

- a) Motor disorders, extrapyramidal, cerebellar disorders
- b) Neuromuscular disorders, musculopathies
- c) Somatosensitive disorders, pain
- d) Spinal cord injury, spinal shock, Brown-Séguard sy.
- e) Neurodegenerative diseases
- f) Dementia, classification, Alzheimer disease
- g) Demyelinating diseases, Multiple sclerosis
- h) Epilepsy
- i) Vegetative dysfunction
- j) Intracranial pressure and herniation sy., bleeding
- k) Cerebrovascular stroke, ischemic, hemorrhagic
- l) Sleep disorders, disorders of higher nervous system

2. Kidneys and urinary system

- a) Manifestation of renal diseases, proteinuria, hematuria
- b) Acute and chronic renal failure, acute tubular necrosis, uremic syndrome
- c) Glomerulopathies, nephritic and nephrotic sy.
- d) Tubulopathies,
- e) Tubulointestinal diseases, pyelonephritis
- f) Renovascular diseases, blood pressure regulation, hepatorenal sy.
- g) Urolithiasis, obstructive disorders of urinary tract

Open questions (5) Approximate composition:

1. Motor disorders, extrapyramidal, cerebellar disorders, neuromuscular disorders, musculopathies
2. Spinal cord injury, multiple sclerosis, epilepsy, stroke
3. Neurodegenerative diseases, dementia, vegetative dysfunction, disorders of higher nervous system
4. Proteinuria, hematuria, nephritic and nephrotic sy., glomerulopathies
5. Acute and chronic renal failure, tubulopathies, tubulointestinal diseases, pyelonephritis, urolithiasis

In multiple choice test each question consists of 5 independent choices (a-e) to which students answer by Y or N. Everyone choice is awarded by 1 point. Altogether it is possible to achieve 150 points in multiple-choice part of test. Each open question is credited by certain maxima of points, which can differ in various questions according to importance, content and difficulty (obviously 3 points and above).