

Topics and study materials for the 4th credit test
Dental medicine
2021/2022

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

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 (20) via Rogo system. 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

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 (Word file). Approximate composition:

- a) Motor disorders, extrapyramidal, cerebellar disorders
- b) Neuromuscular disorders, musculopathies
- c) Spinal cord injury, spinal shock, Brown-Séguard sy., dissociation syndromes
- d) Multiple sclerosis
- e) Epilepsy
- f) Stroke, intracranial pressure and herniation sy.
- g) Neurodegenerative diseases
- h) Dementia
- i) Vegetative dysfunction
- j) Proteinuria, hematuria, nephritic and nephrotic sy., glomerulopathies
- k) Acute and chronic renal failure
- l) Tubulopathies, tubulointestinal diseases, pyelonephritis
- m) Urolithiasis

In multiple choice test (via Rogo system) each question consists of 5 independent choices (a-e) to which students answer by Yes or No. Every one choice is awarded by 1 point. Altogether it is possible to achieve 100 points in multiple-choice part of test.

Test rating grade - %

A - 100 - 93

B - 92 - 85

C - 84 - 77

D - 76 - 69

E - 68 - 60

Fx - 59 and less

Each open question is credited by certain maxima of points, which can differ in various questions according to importance, content and difficulty.

28 March 2022

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