

Topics and study materials for the 2<sup>nd</sup> credit test  
Dental medicine  
2020/2021  
Pathogenesis

**1. Hypoxia, ischemia**

- Hypoxia. Ch 7. In: Rácz, O. (Ed.) Compendium of general pathological physiology Vol. 2, <http://patfyz.medic.upjs.sk/acom/hypoxia.pdf> Online
- Recommended: lectures, tutorials, data on dept. web. Other reading: pract. seminars, internet resources (Wikipedia, etc.)

**2. Fever - forms, causes, mechanisms**

- Inflammation, the Inflammatory Response, and Fever. Ch 3. In: Porth, C.M. (Ed.) Essentials of pathophysiology, 3<sup>rd</sup> Edition, Wolters Kluwer/Lippincot Williams & Wilkins, 2011, ISBN: 978-1-45110-318-2, p.65-72.
- Pain, Temperature Regulation, Sleep, and Sensory Function. Ch 16. In: McCance, K.L., Huether, S.E. (Ed.) Pathophysiology, 7<sup>th</sup> Edition, Mosby, Elsevier Inc., 2014, ISBN: 978-0-323-08854-1, p. 495 – 500.
- Recommended: lectures, tutorials, data on dept. web; Other reading: pract. seminars, internet resources (Wikipedia, etc.)

**3. Inflammation, wound healing, SIRS, CARS, MARS, sepsis, MODS**

- Acute and Chronic Inflammation. Ch 2. In: Kumar, V., Abbas, A.K., Fausto, N., Aster, J.C. (Ed.): Robbins and Cotran Pathologic basis of disease. 8<sup>th</sup> Elsevier, Saunders, ISBN: 978-0-4160-3121-5, p. 43 – 77.
- Innate immunity: Inflammation. Ch 7. In: McCance, K.L., Huether, S.E. (Ed.) Pathophysiology, 7<sup>th</sup> Edition, Mosby, Elsevier Inc., 2014, ISBN: 978-0-323-08854-1, p. 191 – 223.
- Recommended: lectures, tutorials, data on dept. web; Other reading: pract. seminars, internet resources (Wikipedia, etc.)

**4. Pain**

- Somatosensory Function, Pain, and Headache. Ch 35. In: Porth, C.M. (Ed.) Essentials of pathophysiology, 3<sup>rd</sup> Edition, Wolters Kluwer/Lippincot Williams & Wilkins, 2011, ISBN: 978-1-45110-318-2, p.870-883.
- Pain, Temperature Regulation, Sleep, and Sensory Function. Ch 16. In: McCance, K.L., Huether, S.E. (Ed.) Pathophysiology, 7<sup>th</sup> Edition, Mosby, Elsevier Inc., 2014, ISBN: 978-0-323-08854-1, p. 485 – 495.
- Recommended: lectures, tutorials, data on dept. web; Other reading: pract. seminars, internet resources (Wikipedia, etc.)

**5. Immunology – hypersensitivity, immunodeficiency, autoimmune diseases**

- Diseases of the Immune System. Ch 6. In: Kumar, V., Abbas, A.K., Fausto, N., Aster, J.C. (Ed.): Robbins and Cotran Pathologic basis of disease. 8<sup>th</sup> Elsevier, Saunders, ISBN: 978-0-4160-3121-5, p. 183 – 257.
- Alterations in Immunity and Inflammation. Ch 9. In: McCance, K.L., Huether, S.E. (Ed.) Pathophysiology, 7<sup>th</sup> Edition, Mosby, Elsevier Inc., 2014, ISBN: 978-0-323-08854-1, p. 262 – 297.
- Recommended: lectures, tutorials, data on dept. web; Other reading: pract. seminars, internet resources (Wikipedia, etc.)

**6. Neoplasia**

- Neoplasia. Ch 7. In: Kumar, V., Abbas, A.K., Fausto, N., Aster, J.C. (Ed.): Robbins and Cotran Pathologic basis of disease. 8<sup>th</sup> Elsevier, Saunders, ISBN: 978-0-4160-3121-5, p. 259 – 330.
- Cancer Biology. Ch 12. In: McCance, K.L., Huether, S.E. (Ed.) Pathophysiology, 7<sup>th</sup> Edition, Mosby, Elsevier Inc., 2014, ISBN: 978-0-323-08854-1, p. 363 – 401.
- Recommended: lectures, tutorials, data on dept. web; Other reading: pract. seminars, internet resources (Wikipedia, etc.)

**7. Stress**

- Stress and Adaptation. Ch 9. In: Porth, C.M. (Ed.) Essentials of pathophysiology, 3<sup>rd</sup> Edition, Wolters Kluwer/Lippincot Williams & Wilkins, 2011, ISBN: 978-1-45110-318-2, p.209-223.
- Stress and Disease. Ch 11. McCance, K.L., Huether, S.E. (Ed.) Pathophysiology, 7<sup>th</sup> Edition, Mosby, Elsevier Inc., 2014, ISBN: 978-0-323-08854-1, p. 338 – 362.
- Recommended: lectures, tutorials, data on dept. web; Other reading: pract. seminars, internet resources (Wikipedia, etc.)

## 8. Disorders of consciousness

- Alterations in Cognitive Systems, Cerebral Hemodynamics, and Motor Function. Ch 17. In: McCance, K.L., Huether, S.E. (Ed.) Pathophysiology, 7<sup>th</sup> Edition, Mosby, Elsevier Inc., 2014, ISBN: 978-0-323-08854-1, p. 527 – 539.
- Recommended: lectures, tutorials, data on dept. web; Other reading: pract. seminars, internet resources (Wikipedia, etc.)

## 9. Terminal states – dying process, resuscitation, postresuscitation disease

- Terminal states and cardio-pulmonary-cerebral resuscitation. Ch 7. In: Rácz, O. (Ed.) Compendium of general pathological physiology Vol. 1, [http://patfyz.medic.upjs.sk/acom/acom\\_vol1.pdf](http://patfyz.medic.upjs.sk/acom/acom_vol1.pdf), p. 219 – 231.
- Recommended: lectures, tutorials, data on dept. web; Other reading: pract. seminars, internet resources (Wikipedia, etc.)

## 10. Aging – theories, manifestations

- The basic features of the aging process, Ch 6.2. In: Rácz, O. (Ed.) Compendium of general pathological physiology Vol. 1, [http://patfyz.medic.upjs.sk/acom/acom\\_vol1.pdf](http://patfyz.medic.upjs.sk/acom/acom_vol1.pdf), p. 195 – 199.
- Theories of aging, Ch 6.3. In: Rácz, O. (Ed.) Compendium of general pathological physiology Vol. 1, p. 200 – 207.
- Changes in main physiological functions during normal aging and the most frequent health problems in elderly patients, Ch. 6.4. In: Rácz, O. (Ed.) Compendium of general pathological physiology Vol. 1, p. 207 – 218.
- Recommended: lectures, tutorials, data on dept. web; Other reading: pract. seminars, internet resources (Wikipedia, etc.)

## Composition of the test

**Multiple choice questions (20)** via Rogo system. Approximate composition:

1. Fever – forms, causes, mechanisms
2. Inflammation – acute, chronic, systemic, SIRS, sepsis, wound healing
3. Pain – acute, chronic
4. Immunology – hypersensitivity, immunodeficiency, autoimmune diseases
5. Neoplasms (carcinogenesis) – biology, clin. signs, molecular carcinogenesis, markers, paraneoplastic sy.
6. Stress – general adaptation syndrome
7. Disorders of consciousness - qualitative & quantitative
8. Terminal states – dying process, resuscitation, postresuscitation disease
9. Aging – theories, manifestations
10. Hypoxia

**Open questions** (Word file). Approximate composition:

1. Inflammation
2. Immunopathology
3. Fever/Stress/Pain
4. Carcinogenesis
5. Disorders of consciousness/Terminal states/Aging

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