

Dear colleagues,

**Medical students,**

*Read carefully the following guidelines regarding your semester exam in general/clinical pathology, which will be held in January within one day in two parts in person in a predetermined auditorium. Start – 8.00 a.m.*

*The use of masks and gloves is up to the students; and mandatory when declaring an epidemic.*

*Phones, smart watches and other technical means are prohibited. They must be turned off and stored in your luggage.*

**Your exam results will depend on your answers to 30 closed questions (Part 1) and 10 open questions (Part 2).**

*Students who have not passed the practical test/s from the semesters will have to take one on the entire material in the time between the first and second part of the exam, and the preparations - two microscopic and one macroscopic will be presented on the screen in the auditorium. If you fail, the exam ends with a poor grade.*

### Part 1 – test with closed questions

**It consists of thirty closed questions** that have only **one correct** answer. Each correct answer to the first ten questions (you choose from two possibilities) brings 1 point; the correct answers to questions from 11 to 27 incl. (you choose from 4 possibilities) bring 2 points, and the last three questions (cases) (4 possibilities) – 3 points.

*The time you have for the test is **30 minutes.***

The total maximum number of points is 53. To pass the 1st part of the exam you must have a minimum of **32** points. (over 60%).

**Total number of points 53 (10x1 + 17x2 + 3x3) 61% - 32 pts.**

under 32 points – **Poor – 2 for the exam**

## Part 2 – Open Questions

*For the ones that have passed the first part (those who received 32 points or more) after the completion of the test with the closed questions, the second part of the exam begins – open questions.*

It will be 10 questions from general/clinical pathology. You will have a total of **60 minutes** for them. The questions are parts from the ones in the syllabus. The answers should be specific, essentially with an emphasis on morphology (pathological abnormalities).

Each individual question will be evaluated with grades from Poor (2) to Excellent (6) At the discretion of the Commission. In order to successfully complete the exam, you must have correct answers to **at least 7 open questions (over 60%)** with a grade of at least Average /3/. Open-ended question scores will determine your final score on Part 2 of the exam.

The assessment of the answers will be carried out by a committee - habilitated lecturer + assistant. The assessment will be tailored to reflect your knowledge based on the material presented in the teaching aids, the lecture course and the practical course (exercises).

**The final exam grade will be *within the arithmetic average between the grades from the two parts of the exam.***

*For example - first part - Average (3), second part – Very good (5), final grade – Good (4). Taking into account the student's current performance is reason to say that the final result is "within the arithmetic mean".*

***In case of a total Poor grade, a Poor (2) on the open questions or answers to less than 7 open questions (below 60%), the exam ends with a final grade - Poor (2), without taking into account the grade from the first part - the entrance test with closed questions.***

*Each resit starts again with a test, the grade from a previous exam on a test is not taken into account.*

**Sample questions:**

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№	Closed questions	answer	Approx Respon se time	Score in points
1.	Is necrosis coagulative in ischaemic cerebral infarction?	(a) Yes (b) <b>No</b> (Correct)	20 sec	1 p.
2	Does tumor growth have a compensatory adaptive character for the body?	a) <b>Yes</b> (Incorrect) b) no	20 sec	0 pts.
	.....	.....	.....	.....
14	What type of calcification develops in complicated atherosclerotic plaques?	a) metastatic b) <b>degenerative</b> (correct) c) metabolic d) physiological	30 sec.	2 p.
	.....	.....	.....	.....
28	A 57-year-old man, cachectic, smoker, has a tumor formation with decay, with a whitish color and granular structure, located in the upper right lung lobe. The pleura is dotted with small, dense nodules. Haemorrhagic pleuritis and pericarditis are also found. The hilus and mediastinal lymph nodes are enlarged with a whitish color. Give the correct macroscopic diagnosis:	a) Chronic bronchitis with emphysema b) <b>lung carcinoma with metastases</b> (true) c) tuberculosis d) bronchiectasis	2 - 3 min.	3 p.
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Open questions:

1. What is fibrinoid necrosis? What organ localisations do you know?

*FN develops after severe destruction of collagen, during which elements that make it up are released - proteins - albumins, globulins, fibrinogen, AG-AT complexes (fibrinoid), etc., which when stained are colored like fibrin; Along with this, there is the death of cells in the focus of destruction. That is why it is also called fibrinoid necrosis. Most often, FN is located at the bottom of an active chronic ulcer or acute ulcer in the stomach or in the duodenum. FN is also found in the wall of the arteries in hypertensive crises developed due to malignant hypertension as a result of ischemic damage to the endothelium and insudate of plasma proteins in the vessel wall.*

***Correct answer Excellent (6)***

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2. /clinical pathology/ What is lung cancer? Where does it originate? What histological types are known to you? In which organs does it most often metastasize and in which way?

Lung cancer is a malignant epithelial tumor. It develops with a malignant transformation of the epithelial cells of the bronchi (after metaplasia, most often), from the epithelium of the bronchial glands or from that of the alveoli. The histological types are squamous cell and adenocarcinoma. It metastasizes to the liver.

***Correct but incomplete answer Good (4)***

*Missing are the neuroendocrine carcinomas of the lung - small cell and large cell, adenosquamous. The pathways for metastasis were also not noted – lymphatic to hilus, paratracheal, mediastinal, supraclavicular lymph nodes, also to the pleura, and blood – to the liver, yes, but also to the brain, adrenals, bones. Canalicular route – along the bronchi in adjacent parts of the organ.*

***Teaching aids for preparation:***

1. Sample tests – uploaded on the website of the Department  
<https://www.pathology-plovdiv.com/>

2. Workbooks and images uploaded to the above site
3. **General Pathology** edited by Prof. Velev.
4. **Clinical Pathology** edited by Prof. Velev.
5. **Pathology practical book** / Harsh Mohan . - 3rd ed. . - New Delhi : Jaypee brothers medical publ., 2013 . - 282 p. ISBN 978-93-5090-266-07
6. **Robbins and Cotran. PATHOLOGIC BASIS OF DISEASE**
7. Lecture course in general and clinical pathology : For dental students third course / Elena Poryazova, VeselinBelovejdov, IliyaBivolarski, Silvia Genova, DesislavaBojkova, DesislavaTashkova, DenitzaSerteva, Maria Koleva, Milena Gulinac, Marina Tomova, SvitlanaBachurska, Krasimir Dangalov ; Ред. Elena Poryazova. - Plovdiv : Lax book, 2017. - 256 p. ISBN 978-619-189-066-8

and additional teaching aids presented on the website of the university – MU-Plovdiv, Med. Faculty, Departments - Department of General and Clinical Pathology, textbooks.