

Dear colleagues,

Medical students,

Carefully read the following instructions regarding your final exam in general/clinical pathology, which will be held in January, 2022 in one day for each group, in person, in Lecture Hall №7, consisting of two parts.

Starting time – 8:00 am

Wearing face masks is mandatory, gloves are optional.

Phones, smart watches and other technical devices are prohibited. They must be turned off and put in your bags.

date	Course	Groups	Starting time
January 5	IIIrd year Medicine BG	10, 15, 4	Part I - MCQ 8:00 – 8:30
		3, 11, 6	9:15 – 9:45 -----
		-----	Part 2 - Open Questions
		10, 15, 4,	10:30 – 11:30
		3, 11, 6	12:00 – 13:00

<p>January 6</p>		<p>Groups</p> <p>8, 16, 2</p> <p>1, 12, 13</p> <p>-----</p> <p>8, 16, 2,</p> <p>1, 12, 13</p> <p>-----</p>	<p>Part I -MCQ</p> <p>8:00 – 8:30</p> <p>9:15 – 9:45</p> <p>-----</p> <p>Part 2 - Open Questions</p> <p>10:30 -11:30</p> <p>12:00–13:00</p> <p>-----</p>
<p>-----</p> <p>January 7</p>		<p>Groups</p> <p>7, 18, 9</p> <p>14, 17, 5</p> <p>-----</p> <p>7, 18, 9,</p> <p>14, 17, 5</p>	<p>Part I -MCQ</p> <p>8:00 – 8:30</p> <p>9:15 – 9:45</p> <p>-----</p> <p>Part 2 - Open Questions</p> <p>10:30 -11:30</p> <p>12:00 -13:00</p>

<p>January 10</p>	<p>III COURSE MEDICINE ENG</p>	<p>Groups</p> <p>19, 20, 21</p> <p>22, 23, 24</p> <p>-----</p> <p>19, 20, 21</p> <p>22, 23, 24</p> <p>-----</p>	<p>Part I - MCQ</p> <p>8:00 – 8:30</p> <p>9:15 – 9:45</p> <p>-----</p> <p>Part 2, Open Questions</p> <p>10:30 -11:30</p> <p>12:00 -13:00</p> <p>-----</p>
<p>-----</p> <p>January 11</p>		<p>Groups</p> <p>25, 26, 27</p> <p>28, 29, 30</p> <p>-----</p> <p>25, 26, 27</p> <p>28, 29, 30</p> <p>-----</p>	<p>Part I - MCQ</p> <p>8:00 – 8:30</p> <p>9:15 – 9:45</p> <p>-----</p> <p>Part 2, Open Questions</p> <p>10:30 -11:30</p> <p>12:00 -13:00</p> <p>-----</p>

<p style="text-align: center;">January 12</p>		<p style="text-align: center;">Groups</p> <p>31, 32, 33</p> <p>34, 35, 36</p> <p>-----</p> <p>25, 26, 27</p> <p>28, 29, 30</p> <p>-----</p>	<p style="text-align: center;">Part I -MCQ</p> <p>8:00 – 8:30</p> <p>9:15 – 9:45</p> <p>-----</p> <p>Part 2, Open Questions</p> <p>10:30 -11:30</p> <p>12:00 -13:00</p> <p>-----</p>
<p style="text-align: center;">-----</p> <p style="text-align: center;">January 13</p>		<p style="text-align: center;">Groups</p> <p>37, 38, 39</p> <p>40, 41</p> <p>-----</p> <p>25, 26, 27</p> <p>28, 29, 30</p>	<p style="text-align: center;">Part I - MCQ</p> <p>8:00 – 8:30</p> <p>9:15 – 9:45</p> <p>-----</p> <p>Part 2 Open Questions</p> <p>10:30 - 11:30</p> <p>12:00 -13:00</p>

<p>January 17</p> <p>-----</p>	<p>IV COURSE MEDICINE ENG</p> <p>-----</p>	<p>Groups</p> <p>19, 20, 21</p> <p>22, 23, 24</p> <p>-----</p> <p>19, 20, 21,</p> <p>22, 23, 24</p> <p>-----</p>	<p>Part I - MCQ</p> <p>8:00 – 8:30</p> <p>9:15 – 9:45</p> <p>-----</p> <p>Part 2, open questions</p> <p>10:30 -11:30</p> <p>12:00 -13:00</p> <p>-----</p>
<p>January 18</p>		<p>Groups</p> <p>25, 26, 27</p> <p>28, 29, 30</p> <p>-----</p> <p>25, 26, 27</p> <p>28, 29, 30</p>	<p>Part I -MCQ</p> <p>8:00 – 8:30</p> <p>9:15 – 9:45</p> <p>-----</p> <p>Part 2, Open Questions</p> <p>10:30 -11:30</p> <p>12:00 – 13:00</p>

<p>January 19</p>		<p>Groups</p> <p>31, 32, 33</p> <p>34, 35, 36</p> <p>-----</p> <p>25, 26, 27</p> <p>28, 29, 30</p> <p>-----</p> <p>Groups</p>	<p>Part I -MCQ</p> <p>8:00 – 8:30</p> <p>9:15 – 9:45</p> <p>-----</p> <p>Part 2, Open Questions</p> <p>10:30 -11:30</p> <p>12:00 -13:00</p> <p>-----</p> <p>Part I - MCQ</p>
<p>-----</p> <p>January 20</p>		<p>37, 38, 39</p> <p>40, 41</p> <p>-----</p> <p>25, 26, 27</p> <p>28, 29, 30</p>	<p>8:00 – 8:30</p> <p>9:15 – 9:45</p> <p>-----</p> <p>Part 2, open questions</p> <p>10:30 -11:30</p> <p>12:00 -13:00</p>

<p>January 25</p> <p>-----</p> <p>-</p>	<p>IV COURSE MEDICINE BG</p>	<p>Groups</p> <p>5, 6, 8</p> <p>11, 15, 17</p> <p>-----</p> <p>5, 6, 8</p> <p>11, 15, 17</p> <p>-----</p> <p>Groups</p>	<p>Part I - MCQ</p> <p>8:00 – 8:30</p> <p>9:15 – 9:45</p> <p>-----</p> <p>Part 2, Open Questions</p> <p>10:30 -11:30</p> <p>12:00 – 13:00</p> <p>-----</p> <p>Part I - MCQ</p>
<p>January 26</p>		<p>2, 3, 9</p> <p>10, 12, 18</p> <p>-----</p> <p>2, 3, 9</p> <p>10, 12, 18</p>	<p>8:00 – 8:30</p> <p>9:15 – 9:45</p> <p>-----</p> <p>Part 2, Open Questions</p> <p>10:30 -11:30</p> <p>12:00 -13:00</p>

January 27		Groups 1, 4, 7	Part I -MCQ 8:00 – 8:30
		13, 14, 16	9:15 – 9:45
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		1, 4, 7	Part 2, Open Questions 10:30 -11:30
		13, 14, 16	12:00 -13:00

The results of the exam will be based on your answers to the 30 closed questions (part I) and the 10 open ones (part II).

Students who didn't get the practical exemption will have an additional component to the exam, which will be on all the practical slides and macroscopic specimens. This will happen after the first part. This practical examination will consist of two microscopic and one macroscopic pictures, which will be presented on the screen in the lecture hall.

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 (yes or no) brings 1 point; questions 11 to 27 incl. (4 options) bring 2 points, and the last three questions - clinical cases (4 options) - 3 points each.

*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 (61%)**.

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

under 32 points – **the exam ends with a poor grade**

Part 2 - open questions

Those who have passed the mcqs will be able to continue to the second part of the exam - open questions.

These will be 10 open questions from general/clinical pathology. You will have a total of **60 minutes for them**.

The grading of the answers will be carried out by a commission - lecturer and an assistant teacher. The assessment will reflect your knowledge based on the material from textbooks, the lecture course and the practical course (lessons).

Your answers should be well structured and to the point. Don't include information if it's not required.

Each individual question will be graded from poor (2) to excellent (6). To complete the exam successfully, you must have correct answers to **at least 7 open questions (over 60%)** with a minimum grade of **average (3)**. The mean of the marks on the open questions will determine your final grade in the 2nd part of the exam. **If you have a poor (2) grade on 4 or more open questions, you fail the exam and the grade from the mcqs will not be taken into consideration.**

The final grade will be the mean 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).

Questionnaire examples:

№	Closed questions	Answer	Approximate time for each question	Points
1.	Is necrosis coagulative in ischemic cerebral infarction?	a) yes b) no (correct)	20 sec	1p.
2	Does tumour growth act as a compensatory adaptive process for the organism?	a) yes (wrong answer) b) no	20 sec	0p.

14	What type of calcification develops in complicated atherosclerotic plaques?	a) metastatic b) degenerative (correct) c) metabolic d) physiological	30 sec.	2p.

28	A 57-year-old man, cachectic, smoker, has developed a tumour formation with zones of decay, whitish colour and granular structure, located in the upper right lobe of the lung. The pleura is dotted with small, dense nodules. Hemorrhagic pleurisy and pericarditis were also found. The hilar and mediastinal lymph nodes are enlarged with a whitish color. Give the correct diagnosis:	a) Chronic bronchitis with emphysema b) lung cancer with metastases (correct) c) tuberculosis d) bronchiectasis	2 - 3 min.	3p.

Open questions:

From general pathology:

- What is fibrinoid necrosis? What organ localisations do you know?

FN develops after severe destruction of collagen, which releases elements that comprise it (proteins) - albumins, globulins, fibrinogen, AG-AT complexes (fibrinoid), etc., which when stained are dyed as fibrin; in addition, there is cell necrosis in the center 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 duodenum. FN is also found in the wall of arteries in hypertensive crises developed due to malignant hypertension as a result of ischemic endothelial damage and ingestion of plasma proteins in the vessel wall.

Correct answer - excellent (6)

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From clinical pathology:

- What is lung cancer? Where does it originate from? What histological types are you familiar with? In which organs does it most often metastasize and by what route?

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

Correct but incomplete answer – Good (4).

Missing - neuroendocrine carcinomas of the lungs - small-cell and large-cell, as well as adenosquamous carcinoma. The ways of metastasizing are not mentioned either - by lymph: in hilar, paratracheal, mediastinal, supraclavicular lymph nodes, also in the pleura (carcinomatosis); and by blood - in the liver (correct), but also in the brain, adrenal glands and bones. By canalicular way - along the bronchi in adjacent organs.

Training aids:

1. Sample Tests - upload them on the website of the Department <https://www.pathology-plovdiv.com/>
2. Workbooks and CDs
3. **Pathology practical book** / Harsh Mohan. - 3rd ed. . - New Delhi: Jaypee brothers medical publ., 2013. - 282 p. ISBN 978-93-5090-266-0 7
4. **Robbins and Cotran PATHOLOGIC BASIS OF DISEASE**
5. Lecture course in general/ clinical pathology: For medical students third course / Elena Poryazova, Veselin Belovejdov, Iliya Bivolarski, Silvia Genova, Desislava Bojkova, Desislava Tashkova, Denitza Serteva, Maria Koleva, Milena Gulinac, Marina Tomova, Svitlana Bachurska, Krasimir Dangelov; Ed. Elena Poryazova - Plovdiv: Lax book, 2017. - 256 p. ISBN 978-619-189-066-8

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