

**Assessment tools for conducting attestation  
in discipline «Medical informatics»  
for students of 2024 year of admission  
under the educational programme  
31.05.01 General Medicine  
(Specialist's degree),  
form of study full-time correspondence  
for the 2025-2026 academic year**

1. Assessment tools for conducting current certification in the discipline:

1.1. Assessment tools for conducting certification in seminar-type classes

Certification in seminar-type classes includes the following types of tasks: assessing the mastery of practical skills, testing, interview on control questions.

1.1.1. Examples of Practical Skills Assessment Tasks

Practical Task 1. Complex Formulas in Excel: Averaging Grades, Division, and AutoFill

1. Average student 1's grades.

2. Challenge: Use AutoFill to complete the formulas for students 2-5

3. Challenge: use AutoSum to average the grades instead of typing the formula out manually (**Tip:** use the Number formatting commands to decrease decimals to two places for your totals )

|   | A         | B       | C       | D       | E       |
|---|-----------|---------|---------|---------|---------|
| 1 |           | Grade 1 | Grade 2 | Grade 3 | TOTALS: |
| 2 | Student 1 | 98      | 100     | 80      |         |
| 3 | Student 2 | 78      | 90      | 85      |         |
| 4 | Student 3 | 90      | 100     | 100     |         |
| 5 | Student 4 | 86      | 88      | 90      |         |
| 6 | Student 5 | 0       | 0       | 0       |         |
| 7 |           |         |         |         |         |

Practical Task 2. Microsoft Access Exercises.

1. Create a new database, save it on the desktop and name it "School Database"

2. Create a Table in the School Database with the following: Field Name -Data Type-Field Size or Format

- ID Number –Text- 10
- Name -Text -15
- Surname -Text -15
- Telephone Number- Number - Long Integer
- Date of Birth - Date/Time - Medium Date
- Stipend Currency- Currency

3. Make the "ID Number" Field as the Primary Key.

4. Save the table as "Student's Table"

5. Return to the main Access window.

6. Open the "Students Table" and enter 5 complete records.

7. Sort the table in ascending order by surname

8. Move the Date of Birth and Telephone Number fields so that the Date of Birth field is now directly after the Surname field.
9. Delete the last Record you have entered
10. Change the field size of the Surname to 20.
11. Create a Form with all fields on the Student's Table. Name the form Students Entries
12. Make the ID Number of Each student in the form, Red
13. Insert a Picture in the form in way that all text is visible.
14. Create a report based on the Student's Table showing the Fields Name, Surname, and Telephone Number. Name the report Telephone List .
15. Create a query, showing all fields of those students who have a particular surname of your Choice.
16. Create another query showing all fields of those students born after 2005
17. Create a query showing only the Student's Name, Student's Surname and Student's Date of birth.

#### 1.2.2. Examples of test tasks

1. Combining two or more cells into one cell uses a Word feature called:

- a) Merge Cells
- b) Merge All Cells
- c) Split Cells
- d) Merge Selected Cells

Answer: \_\_\_\_\_

2. The speed at which a CPU processes data to convert it, is measured in:

- a) bits per second (bps)
- b) terabytes
- c) megabytes
- d) gigahertz

Answer: \_\_\_\_\_

3. Which of the following is NOT an Operating System?

- a) Ubuntu Linux
- b) Safari
- c) Android
- d) Catalina

Answer: \_\_\_\_\_

4. What is the minimum amount of memory (in KB) one needs to store a bitmap image sized  $128 \times 128$  pixels, provided that a single pixel occupies 8 bits of memory?

- a) 2
- b) 4
- c) 8
- d) 16

Answer: \_\_\_\_\_

5. Choose the string which does NOT represent a valid IP address.

- a) 1.1.1.1
- b) 255.255.0.0
- c) 1024.1.24.3
- d) 0.0.1.200

Answer: \_\_\_\_\_

6. Which of the following is not a database management software

- a) MySQL
- b) Oracle
- c) Sybase
- d) COBOL

Answer: \_\_\_\_\_

7. Which protocol is used to send e-mail

- a) HTTP
- b) POP3
- c) SMTP
- d) SSH

Answer: \_\_\_\_\_

8. Which computer program converts assembly language to machine language

- a) Interpreter
- b) Compiler
- c) Assembler
- d) Comparator

Answer: \_\_\_\_\_

9. How many layers in the TCP/IP protocol layers

- a) 7
- b) 5
- c) 4
- d) 11

Answer: \_\_\_\_\_

10. Which key combination is used to minimize all open windows and displays in the screen

- a) Alt+M
- b) Shift+M
- c) Windows Key+D
- d) CTRL+D

Answer: \_\_\_\_\_

1.1.3.Examples of control questions for an interview at a seminar:

1. What is hardware? What are the basic hardware parts that you need to get a PC working?
2. What is MS Word & why it is used for?
3. Explain the MS word interface parts. Explain about following commands of MS Word.

- Ribbon tabs
  - Groups
  - Dialog box launcher
4. Explain the spreadsheet and its fundamentals.
  5. How will a cell be formatted? What options are there?
  6. Define the following terminologies used in Internet; WWW, Hyperlink, Web page, Website and URL.
  7. Expert systems. What are the three components of an expert system?
  8. What is database? Provide three examples of a real-world database (e.g., the library contains a database of books).
  9. How database can be used in health care sector?
  10. What is SQL and why it is used?

2. Assessment tools for conducting intermediate certification in the discipline. Intermediate certification is conducted in the form of a test.

#### 2.1.Examples of test tasks

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The full fund of assessment tools for the discipline/practice is available in the VolgSMU Electronic Information and Educational System at the link(s): <https://elearning.volgmed.ru/course/view.php?id=4566#section-9>

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Head of the department of clinical engineering  
and artificial intelligence technologies



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