

## WHAT IS NECESSARY TO KNOW FOR PRACTICAL EXAM!

### **OBLIGATORY!**

1. To create a new folder in a given location on the computer and/or on the local network, and to name it as requested.
2. To create a new Microsoft Word, Excel or PowerPoint file. To save in a given location of a computer and/or on the local network.
3. To interpret the results of statistical analysis.

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### **MOST IMPORTANT!**

IN ORDER TO BE ABLE TO PASS THE EXAM, THE FOLLOWING KNOWLEDGE AND COMPUTER SKILLS MUST BE DEMONSTRATED:

1. To copy and paste (including Paste Special options) data from a file to another file.
2. To sort the Microsoft Excel data.
3. To create new variables using given criterion/criteria (application of IF function and creation of functions defined by users).
4. To create formulas and to use predefined formulas (such as IF, COUNT, COUNTIF, SQRT, CORREL, SUM, AVERAGE, MEDIAN, MODE, STDEV, KURT, MAX, MIN, SKEW) and functions in Excel.

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### **OTHERS**

#### **1. MICROSOFT WORD**

- Formatting the page [File – Page setup...]
- Formatting the text: [Format – Font] - [Format – Paragraph]
- Using predefined styles and formatting: [Format – Style and Formatting ...]
- Creation of content of a document: [Insert – Reference – Index and tables...]
- Creation of tables [Table – Insert – Table ...] (To link together two or more then two cell use [Table – Merge Cells])
- Inserting mathematical formulas ([Insert – Object... – Microsoft Equation 3.0])
- Inserting Footnote ([Insert – Reference – Footnote – Footnote])
- Adding a header [View – Header and Footer]
- Insert the page number ([Insert – Page Numbers])
- Creating templates ([File – Save As – Save As Type = Document Template])

#### **2. MICROSOFT EXCEL**

- Working with Workbook and Sheets (insert a new sheet – rename the sheet – delete a sheet – formatting cells and columns – defining the type of data).
- Managing data with Microsoft Excel - Microsoft Excel Databases.
- Relative and absolute references in creation of formulas in Microsoft Excel.
- Data sorting [Data - Sort].
- Creating graphical representations: pie (display on the chart the associated relative frequencies), columns, scatter (use when you want to represent the relationship between two quantitative variables), and histogram (representation of distribution of quantitative variables).

### 3. MICROSOFT POWERPOINT

- Creating a PowerPoint presentation:
  - Design
  - Including tables (Copy – Paste – PrintScreen)
  - Including graphical representation (Copy – Paste)
  - Slide Transition
  - Saving a presentation as PowerPoint show

Attention! The minimum size of the fonts use in a Power Point presentation is 20!!!

### 4. MEDICAL STATISTICS

- Descriptive statistics [Tools – Data Analysis – Descriptive Statistics]. Interpretation of results.
- Computing confidence level of means [Tools – Data Analysis – Descriptive Statistics]. Interpretation of results.
- Regression analysis (Scatter plot). Interpretation of results.
- Correlation coefficient. Interpretation of results.
- Covariance / coefficient of variation / homogeneity analysis. Interpretation of results.
- Stating the null and alternative hypotheses.
- Choosing the significance level.
- Choosing the statistical test that fit to your data.
- Applying statistical tests:
  - Student test: comparison of the means of independent samples:
    - Assuming equal variances
    - Assuming unequal variances
  - Student test: comparison of means of dependent samples (paired T test)
  - Chi-square test
  - Correlation and regression analysis.