

4 big questions (Q1 – Q4) : each one = 10 credits

15 small questions: each one = 4 credits

Total: 100 credits (minimal level for E: 50 credits)

Q1 (10 credits) Draw graphical overview of FIRST MENDEL LAW

(it will be best if you draw one graphical example for gamets from homozygote parent, and one graphical example for gamets from heterozygote parent; use **tt, Tt an TT symbols for gene variant**)

Q2 (10 credits) Make graphical scheme of mitochondria and write where is the high or low hydrogen ion concentration.

Q3 (10 credits) Make graphical scheme of CD8 T-lymphocyte interaction with infected cells (3 steps and write name of 3 important surface molecules)

Q4 (10 credits) Make graphical scheme FLOW-CYTOMETRY and write 3 typical pathology which can be recognized from blood of patient by FLOW-CYTOMETRY

SMALL QUESTION (each one = 4 credits)

3) Phases of cell cycle are going "step-by-step" by this way

- a) G1, S, G2, M
- b) F, G1, G2, M
- c) ana-phase, meta-phase, mito-phase, post-phase
- d) G1, M, G2, M

9) IgM produced by B-lymhocytes have typical

- a) Y-shape
- b) hexamer shape
- c) twin-peak shape
- d) pentamer shape

10) What is PERFORIN ?

11) What is the name of development of blood cells?

14) Write 4 names of white blood cells (but not B-lymphocyte, not T-lymphocyte)