**Running test in CG990 subject**

**: separation of proteins**

**version 01**

name date

**1) Which two amino acids are responsible for negative charge of proteins?**

a) glutamate, aspartate

b) tyrosine, alanine

c) arginine, lysine

d) glutamine, asparagine

**2) Hypothetical protein with relative molecular weight 30 kDa and pI = 9.0 is going to be found after 2D GE (strip 3-10, vertical 10%T SDS-PAGE) in the gel:**

a) at the bottom edge, between left and right lower quadrants

b) in upper left quadrant

c) in lower right quadrant

d) the protein will not be in the gel

**3) What does it mean partial separation?**

**Running test in CG980 subject**

**: separation of proteins**

**version 02**

name date

**1) Using which method, we check the protein preparation yield?**

a) nuclear magnetic resonance

b) mass spectrometry

c) denaturing gel electrophoresis

d) liquid chromatography

**2) Series of samples enabling a result accuracy evaluation are?**

a) technical replicates

b) methodical replicates

c) experimental (biological) replicates

d) error replicates

**3) What is the importance of so called peak capacity?**

**Running test in CG980 subject**

**: separation of proteins**

**version 03**

name date

**1) Which methods are used to separate proteins according to charge?**

a) ion-pairing chromatography on reversed phases (IP-RPLC)

b) chiral chromatography

c) hydrophobic interactions chromatography

d) ion-exchange chromatography

**2) What is the purpose of separation in the first dimension of two-
 dimensional gel electrophoresis (2D GE)?**

a) separation of proteins according to their molecular mass

b) separation of proteins according to their isoelectric point

c) pre-separation to achieve high final peak capacity

d) pre-separation to achieve high final resolution

**3) What is the protein equaliser?**

**Running test in CG980 subject**

**: separation of proteins**

**version 04**

name date

**1) In a frame of separation methods, what does it mean complete separation?**

a) separation of a mixture down to individual proteins

b) separation of a mixture down to protein classes according to chosen property

c) separating a group of proteins from mixture

d) selective separation of one protein from mixture

**2) What does not belong among possible inputs of protein separation?**

a) whole-cell lysate

b) mixture of proteolytic products of protein cleavage

c) protein mixture after recombinant protein expression

d) decantate after precipitation and centrifugation of proteins

**3) What is the importance of multidimensional separations?**