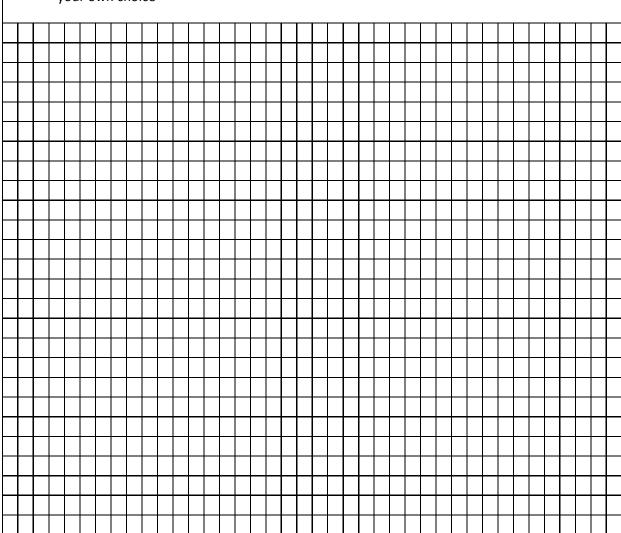
Exam Questions – Part 2 – Unbound task Elective Subject Application of Sampling Techniques and Analysis Procedures

Questions from the "PAL Prüfungsbuch" Application of Sampling Techniques and Analysis Procedures All tasks are to be scored with 10 to 0 points

1:

- 1) Name **two** possible objectives that are to be achieved by sample conservation
- 2) Name the conservation method and the sample conservation purpose using an example of your own choice







Exam Questions – Part 2 – Unbound task Elective Subject Application of Sampling Techniques and Analysis Procedures

3:

Different demands are put on sample preparation

Assign the demand goal to its proper procedure from the below given table (numbers 1-5) and explain your decision.

Procedure:

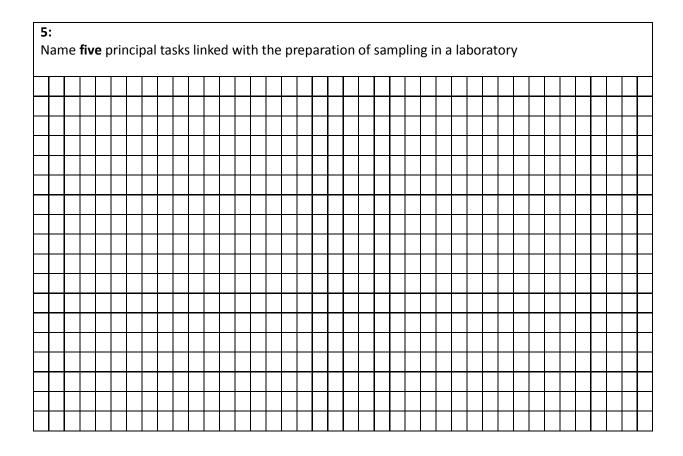
- 1. Detaching the matrix by extraction of the analyte
- 2. Heating by microwave oven instead by hot plate
- 3. Detaching the residue and executing a fusion melt
- 4. Increasing the weight of sample taken/ reducing the solvent amount
- 5. Usage of PTFE vessels

Demand	Procedure	Explanation
Reduction of time		
Prevention of		
contamination		
Reduction of noise		
Improvement of detection limit		
Complete dissolution of the sample		





Exam Questions – Part 2 – Unbound task Elective Subject Application of Sampling Techniques and Analysis Procedures



7:Three typical sources of error during sample taking are distinguished. In this context fill in the blanks of the below given table with an appropriate statement or description.

Source of error	Example	Prevention
Technical and organizational		- clear and explicit labelling
errors		- evaluation of sample
		conservation
		- discuss procedures
	- carry-over caused by	
	insufficient cleaning	
	- confusion of closures	
	- contamination with impurities	
	by ambient air	
	- vessels are not sealed gastight	
	- diffusion into the vessel	
	material	
	- wrongly applied sampling	
	technique (suction pump)	





Exam Questions – Part 2 – Unbound task Elective Subject Application of Sampling Techniques and Analysis Procedures

8:	
Name five sampling devices and the appropriate f	ield of application
Sampling device	Field of application



