PZ10 Clinical microbiology I – general

To study: Sampling, specimen transport (from textbooks, www etc.)
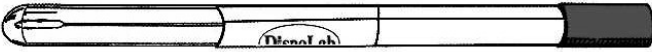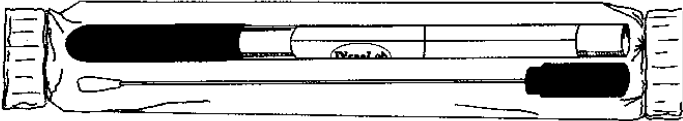**From spring term:** Microscopy

Task 1: Indications for microbiological examination

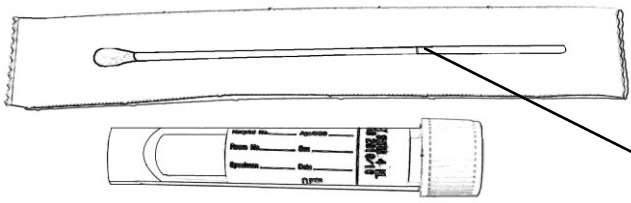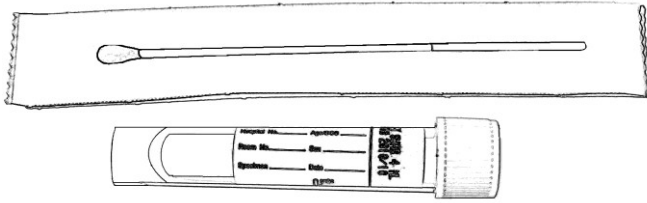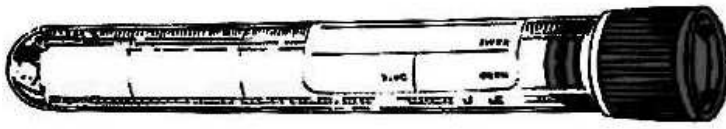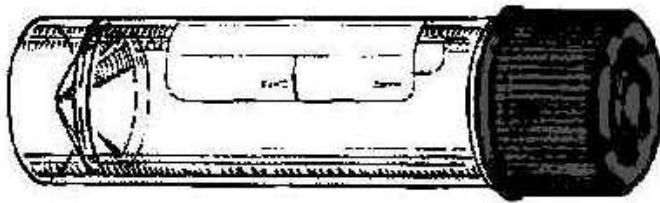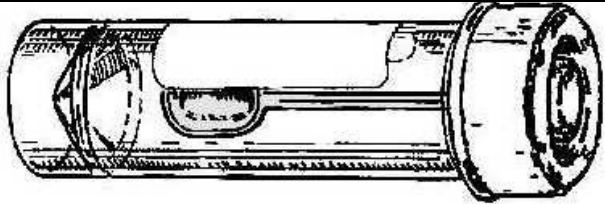For following casuistries, fill in the table.

❶ Fill in always the case description (left column).

❷ Try to find out your solution. Try to structure your answer as follows:

Microbiological examination: yes/no

❖ **yes** → select a specimen
❖ **no** → select other steps, e. g. direct treatment – what antibiotics etc.)

❸ After the three minute limit, write down a correction according to the teacher's explanation.

	Description of a case	Your solution (⏱ 3 minutes)	Correction according to the teacher's explanation
a			
b			
c			
d			

Task 2: Swabs and vessels

Observe the swabs in your table and fill in their "identity cards".

Name: Plain swab		
	Stick material	plastic, wood, aluminium
	Swab material	synthetic cotton
Practical use:		

Name: Swab with Amies transport medium		
	Stick material	plastic or aluminium
	Swab material	synthetic cotton
	Medium	Amies (Stuart, Cary Blair)

Note: The medium may contain charcoal (then it is black); without charcoal, it would be colourless.

Practical use:

Variant with aluminium stick is used for

Name: Fungi-Quick swab

Stick material		plastic
Transport medium colour	colourless	
Cap colour		

Practical use:

Name: C. A. T. swab

Stick material		plastic
Transport medium colour	colourless	
Cap colour		

Practical use:

Name: Common test tube for microbiology

Sterile? (yes or no)	
Description	made of polystyrene, 16 × 100 mm, 10 ml

Practical use:

Name: Sputum test tube

Sterile? (yes or no)	
Description	made of polystyrene or polypropylene, 26 × 92 mm, 30 ml

Practical use:

Name: Stool container

Sterile? (yes or no)	
Description	made of polypropylene, 26 × 82 mm, 30 ml

Practical use:

Name:		Sampling vessel for urine		
			Sterile? (yes or no)	
			Description	made of polypropylene, 45 × 70 mm, 120 ml
Practical use:				

Task 3: Other sampling methods than swabs and vessels

Fill in the following table:

Sampling method	Typical example(s) of use
smear on a slide	
imprint with an agar	
moulage method	
uricult	

Task 4: The order form

a) Filling in the order form

Fill in the following order form with a patient name and data and the requested examination related to the disease, according to a card that has been given to you by the teacher.

Examples of a description to be written on the request form (in „Požadováno" field):

- Throat swab for bacteriology examination
- Blood for antibodies againts EB virus and cytomegatovirus
- Stool for parazites (after stay in Congo and Gabon)

b) Order form common mistakes

To each of the following order forms write down what is wrong. There are some mistakes at filling in the order form, but you should also identify improperly requested examinations.

wound swab

tissue for microbiology

rectal swab for parasitology

Tissue for syphilis cultivation

Task 5: Interpretation

a) Direct diagnostic interpretation

Using the table in the slideshow, write the likely interpretation for first five of various findings written on cards available on your table. Use terms "pathogen", "common flora", "accidental finding", "colonization" and "contamination"

Finding	Interpretation

b) Indirect diagnostic interpretation

Interpret several clinical situations with data given on the card. Do not forget to make your interpretation on the base of both clinical findings and laboratory results (clinical findings). Chose only four of five situations.

Rewrite from the card (simplify the sentences)		Conclusion
Clinical situation	Serology examination results	