Chemistry Analysers Worksheet

A Lead-in.

In pairs, discuss these questions.

1 Do you use any equipment in your laboratory classes? What kind of equipment? Can you describe it (what its purpose is, how it works, what kind of results you get)

2 How many different analysing techniques do you know already? Are they easy to perform?

3 Which of the types of analysis in your future job is the most difficult? Important? The most routine-like?

B Chemical analysers

1 ptroerpy	a detekce nedostatku vzorku
2 itneracfe	b přístroje v dávkovém režimu
3 sgapmlin features	c vlastnost
4 lcot tdeection	d okamžité přerušení
5 hsort msaple tdeection	e charakteristiky dávkování
6 iemmdiate niterurpt	f detekce sraženiny
7 trhoughutp	g průchodnost, výkonnost
8 on-bdaro	h přístroje s náhodným přístupem
9 tbach-mdoe mentsinstru	i rozhraní, propojení
10 rdanom-casces mentsinstru	j v přístroji, „na palubě“

Fill in the blank spaces in the text using the words given below:

samples	inserting	safety	continuously	errors	
days	direct	measure	automated	properties	cups

An _____ (1) analyser is a medical laboratory instrument designed to _____ (2) different chemicals and other characteristics in a number of biological samples quickly, with minimal human assistance. The measured _____ (3) of blood and other fluids may be useful in the diagnosis of disease.

Many methods of introducing _____ (4) into the analyser have been invented. This can involve placing test tubes into racks, which can be moved along a track, or _____ (5) tubes into circular carousels that rotate to make the sample available. Some analysers require samples to be transferred to sample _____ (6). However, to protect the health and _____ (7) of laboratory staff, many manufacturers have developed analysers that have closed tube sampling, preventing workers from _____ (8) exposure to samples.

Samples can be processed singly, in batches, or _____ (9). The automation of laboratory testing does not remove the need for human expertise: results must still be evaluated by qualified clinical laboratory professionals, but it does reduce the number of _____ (10).

Automation of the testing process has reduced testing time for many analytes from _____(11) to minutes.

C Listening

1 Warm-up. Look at these words and try to complete them. Then listen and check your answers.

Re_ _ent wedges with unique RFID c_ _ps
Wo_k l_st
C_ _mical a_ _lyser
Nu_ber of s_m_les
Ma_imize t_rough_ut
Icon-d_iven user int_ _face
Re_laceable com_onents
P_ndi_g sam_les
E_ _iration da_es
T_ _ch-screen m_ _itor
Reagent p_r_meter setup
C_ini_al laboratories
Sample v_l_mes
LIS inte_fa_e
Reagent l_cations
On-b_ _rd reagent c_ _ling

2 Listen and complete the gaps with one word.

a) In today's busy laboratory _____, it's becoming increasingly important to find ways to **-** _____ efficiency while still ensuring quality

b) Medica Corporation is actively engaged in the development of new _____ on which the company will base future _____

c) analysers are uniquely easy to _____ and service, so they can be used routinely by most _____ in hospital and clinical laboratories

d) the analyser is intentionally easy. Easy to use, easy to _____ and easy to _____.

e) the _____ wedges have a unique RFID chip that contains all the information necessary to _____ a test

f) Easy RA is easy to afford because it combines _____ components, low reagent usage for every test and low service _____

g) Easy RA identifies reagent locations, number of samples _____, sample volumes and _____ dates

h) running samples begins with the _____: enter samples or use the LIS _____ to view the samples and tests that were ordered

3 In pairs, answer the questions.

a) What is the purpose of this video?

b) What are the advantages of routine chemistry analysers in general? Can you think of any disadvantages?

c) What kind of analysers do you have in your laboratory classes? Do you find them difficult to run? Why yes/no?

d) Are you afraid of automation? Will robotic analysers do all your work in the future?