TECHNICAL ENGLISH FOR CHEMICAL ENGINEERS [1-8]

References:

- 1. YDI339 Technical English For Chemical Engineers Ders Notları (2012)
- 2. Akar N. Z., Özkan Y., Tarhan Ş. (2005) "Language and Communication Skills After Graduation"
- 3. Öniz A.S. and Cross T.M. (1981)"Physical Science Reader Series" Volume I, Middle East Technical University Ankara, Turkey.
- 4. Glendinning E. and Mantell H., (1983), "Write Ideas", Longman Group Limited
- 5. Shreve N.R., Brink J. A. Jr. (1977), "Chemical Process Industries, Mc Graw-Hill, London
- 6. Shreve N.R., Brink J.A.Jr. (Çeviri: Çataltaş A.İ.), 1985 Kimyasal Proses Endüstrileri I, İnkilap Kitabevi, İstanbul
- 7. McCabe W.L., Smith J.C. and Harriott P., 1985, Unit Operations of Chemical Engineering, Mc.GrawHill Book Company, NewYork.
- 8. Kimya Mühendisliği Ünit Operasyonları, 1981, McCabe-Smith'den Çeviren: Prof. Dr. Emir Gülbaran, İ.T.Ü.Mühendislik Mimarlık Fakültesi Yayınları,sayı 137, Matbaa Tek. Koll. ŞTİ, İstanbul
- a) Write the topic sentence of the following paragraph

Besides using polymer in concrete, builders can also add them to other ordinary materials.

b) What is the following paragraph about?

The addition of polymers to materials other than concrete

"Besides using polymer in concrete, builders can also add them to other ordinary materials. The addition of polymers results in much stronger and more durable materials. For instance, with the addition of polymers, paper becomes much tougher and stronger. In fact, it can even replace the wood inside buildings; in this way, builders can use doors, window-frames, wall coverings, etc., made of polymer paper instead of wood. "[1]

Read the following paragraph carefully, then write two advantages and two disadvantages of nuclear power.

Advantages: I. The technology exists. 2. Small amounts of fuel needed for enormous amounts of energy.

Disadvantages: I. Pollution 2. The danger of an accidental explosion

"Nuclear power has often been presented as the only means of 'saving' our standard of living when the fossil fuels like oil, coal and gas run out. It is attractive in that we have already developed the technology to exploit the energy stored in the atom. In addition, small amounts of fuel release enormous amounts of energy. However the problems of nuclear power have become increasingly clear in the last decade. These range from the threat of pollution to the danger of an accidental explosion and these make nuclear power a less desirable solution to the energy crisis. Furthermore, to completely replace fossil fuels by nuclear power would require the construction of about fifty times the present number of nuclear power stations by the end of the century, which is beyond our resources."[1]

Complete the paragraph with the words in the list. Use each word only once.

(durable useful properties require certain materials special constructions resist able)

"Because of their <u>special properties</u>, polymer materials are very <u>useful</u> in <u>certain</u> constructions. For example, roads, bridges, and tunnels <u>require</u> very strong, <u>durable materials</u> because such <u>constructions</u> must be <u>able</u> to <u>resist</u> heat, cold, and water."[1]

Complete the paragraph with the words in the list. Use each word only once.

(take variety provides benefits careers team excel willing compensation like)

The career of engineering is one that provides many <u>benefits</u> to the ones who are <u>willing</u> to work for the degree. This field has a <u>variety</u> of areas to <u>excel</u> in. It <u>provides</u> creative work, the chance to work with a <u>team</u>, and the <u>compensation</u> is far from the average. Engineering is also one of the most important <u>careers</u> in our society. Without it, our civilization would be nothing <u>like</u> it is today; and the pleasures that many of us <u>take</u> for granted would not be here to comfort us.

Complete the sentences with the words in the list. Use each word only once.

(provided quality concise checked measure obvious instrument benefited determine expect)

- 1. Environmental pollutants have had dramatic effects on water **quality** of rivers and streams, although the effects are not always **obvious**.
- 2. The experiment was an effective way to learn about pH, how to <u>measure</u> pH with a digital <u>instrument</u>, and how to <u>determine</u> correlation from a set of data.
- 3. The hypothesis should be a **concise** statement predicting what you **expect** to find in the experiment.
- 4. This seminar report has been <u>benefited</u> from the many useful comments <u>provided</u> to me by the numerous of my colleagues. In addition many other of my friends have <u>checked</u> it and have offered many suggestions and comments.

Give the same information of the last sentence of the following paragraph in other words?

In other words, you need to have certain forms of energy in order to run machines; for example, electrical energy or heat energy. As a result, we change these forms into mechanical energy.

"We are able to change energy from one form to another for three main purposes – to provide heat, light, and power for machines. For instance, we can burn wood and the fossil fuels and in this way change their chemical energy into heat energy. We can also change this heat energy into electrical energy (i.e., electricity). We can use different forms of energy, such as electrical energy and heat energy, to run machines and thus obtain mechanical energy. "[1]

Rewrite the sentences below with the correct word order to make the phrases

dissolved of in of were 250 Ten ml NaCl g water

Ten g of NaCl were dissolved in 250 ml of water

oxygen. The the to be in of limiting seems factor availability freshwater

The limiting factor in freshwater seems to be the availability of oxygen.

Rewrite the sentences below with the correct word order to make the phrases

Use and vice bright text background for dark versa. Use bright text for dark background and vice versa.

Speak understand so what can that are you everyone saying. Slowly **Speak slowly so that everyone can understand what you are saying.**

What presentation? you about this will in talk What will you talk about in this presentation?

Don't slides the too of populate your data. with much **Don't populate your slides with too much of the data.**

Let's this closely at more look

Let's look at this more closely

The under be five subject looked headings, at can main

The subject can be looked at under five main headings.

Complete the sentences with the words in the list. Use each word only once.

(depends conveyed exclamation plan quote completion emphasis source extending gratitude)

- 1. Use the pause. Silence is an excellent **exclamation** point. By slightly **extending** a pause, you can add **emphasis** to a key point in your presentation. All presenters pause naturally, but the best presenters **plan** their pauses for maximum impact!
- 2. Never directly copy or **quote** sentences from your sources. Ideas should be **conveyed** in your own words, and the **source** of this information should be cited and referenced.
- 3. I express my sincere **gratitude** to him for his constant support and valuable suggestions without which the successful **completion** of this seminar would not have been possible.
- 4. The number of slides **depends** upon the time that you take in giving seminar, so have one slide for each minute of that time.