



UNIVERSITY OF RUHUNA

Faculty of Engineering

End-Semester 8 Examination in Engineering: January 2019

Module Number: IS8201

Module Name: English for the Professional World

[Three hours]

[Answer all questions]

Q1.

a) Complete the sentences with the correct form of the verb.

- i.) The authorities \_ (have) to find a solution to reduce the road accidents which happen frequently these days.
- ii.) When Nimal entered the lecture hall, the lecturer \_ (analyze) the main concepts of an electric circuit.
- iii.) His father \_ already \_ (agree) to buy a car if he passes the final year engineering exam well.
- iv.) The Department of Civil Engineering \_ (conduct) the annual English day programme since its inception.
- v.) Look! Mahesh \_ (study) for tomorrow's English test. He seems a bit nervous.
- vi.) The sky is cloudy. It \_ (rain) soon. We had better take our umbrellas.
- vii.) After I \_ (watch) the film, "Godfather", I decided to buy the novel.
- viii.) Due to the rise of the oil prices, the prices of the food items \_ (increase) within the next few days.
- ix.) None of the officers \_ (be) present for the meeting as they were not properly informed about it.
- x.) Everybody will be at the office at about 8.30 tomorrow as the meeting is scheduled to \_ (start) at nine o' clock.

[05 Marks]

b) Transform the following sentences from active voice to passive voice.

- i.) The maintenance department regularly services the machine
- ii.) We checked the production unit last week.
- iii.) The apprentice is cleaning the tools at the moment.
- iv.) We will make the plans ready by the end of next week.
- v.) Before the test we had already worked with the new material.
- vi.) We will schedule the meeting for next week.
- vii.) The factory has produced the new tissues for a couple of months.
- viii.) The accident happened while we were cleaning the machine.
- ix.) They have completed a thorough training before the project started
- x.) You should wear protective clothing in the workshop.

[05 Marks]

Q2.

Read the passage and answer the questions given below.

### Smart Energy

The next few decades will see great changes in the way energy is supplied and used. In some major oil producing nations, 'peak oil' has already been reached, and there are increasing fears of global warming. Consequently, many countries are focusing on the switch to a low carbon economy. This transition will lead to major changes in the supply and use of electricity. Firstly, there will be an increase in overall demand, as consumers switch from oil and gas to electricity to power their homes and vehicles. Secondly, there will be an increase in power generation, not only in terms of how much is generated, but also how it is generated, as there is growing electricity generation from renewable sources. To meet these challenges, countries are investing in Smart Grid technology. This system aims to provide the electricity industry with a better understanding of power generation and demand, and to use this information to create a more efficient power network.

Smart Grid technology basically involves the application of a computer system to the electricity network. The computer system can be used to collect information about supply and demand and improve engineer's ability to manage the system. With better information about electricity demand, the network will be able to increase the amount of electricity delivered per unit generated, leading to potential reductions in fuel needs and carbon emissions. Moreover, the computer system will assist in reducing operational and maintenance costs.

Smart Grid technology offers benefits to the consumer too. They will be able to collect real-time information on their energy use for each appliance. Varying tariffs throughout the day will give customers the incentive to use appliances at times when supply greatly exceeds demand, leading to great reductions in bills. For example, they may use their washing machines at night. Smart meters can also be connected to the internet or telephone system, allowing customers to switch appliances on or off remotely. Furthermore, if houses are fitted with the apparatus to generate their own power, appliances can be set to run directly from the on-site power source, and any excess can be sold to the grid.

With these changes comes a range of challenges. The first involves managing the supply and demand. Sources of renewable energy, such as wind, wave and solar, are notoriously unpredictable, and nuclear power, which is also set to increase as nations switch to alternative energy sources, is inflexible. With oil and gas, it is relatively simple to increase the supply of energy to match the increasing demand during peak times of the day or year. With alternative sources, this is far more difficult, and may lead to blackouts or system collapse. Potential solutions include investigating new and efficient ways to store energy and encouraging consumers to use electricity at off-peak times.

A second problem is the fact that many renewable power generation sources are located in remote areas, such as windy uplands and coastal regions, where there is currently a lack of electrical infrastructure. New infrastructures therefore must be built. Thankfully, with improved smart technology, this can be done more efficiently by reducing the reinforcement or construction costs.

Although Smart Technology is still in its infancy, pilot schemes to promote and test it are already underway. Consumers are currently testing the new smart meters which can be used in their homes to manage electricity use. There are also a number of demonstrations being planned to show how the smart technology could practically work, and trials are in place to test the new electrical infrastructure. It is likely that technology will be added in 'layers', starting with 'quick win' methods which will provide initial carbon savings, to be followed by more advanced systems at a later date. Cities are prime candidates for investment into smart energy, due to the high population density and high energy use. It is here where Smart Technology is likely to be promoted first, utilizing a range of sustainable power sources, transport solutions and an infrastructure for charging electrically powered vehicles. The infrastructure is already changing fast. By the year 2050, changes in the energy supply will have transformed our homes, our roads and our behavior.

(<http://bog.edu.ge/uploads/pages/the-english-language-test-sample-4.pdf>)

a) Answer the questions below.

- i.) What are the consequences that will occur in countries due to switch to low carbon economy? Mention two.
- ii.) What is the ultimate objective of this new technology?
- iii.) What is the use of the computer system in the smart grid technology?
- iv.) What are the benefits of smart grid technology to consumers?
- v.) According to paragraph 4, what is the problem with using renewable sources of power?
- vi.) In paragraph 5, what can be inferred about cities in the future?
- vii.) The word 'remote' in paragraph 5 could be best replaced by:
  - a) isolated
  - b) attractive
  - c) crowded
  - d) alone

viii.) The word 'underway' in paragraph 6 is closest in meaning to:

- a) permanent
- b) complete
- c) beneficial
- d) in progress

ix.) What are the reasons for selecting cities for investment of smart grid technology?

x.) What are the main areas where smart technology is promoted?

[10 Marks]

Q3.

a) Write down a telephone conversation. Assume that you are a junior industrial engineer. Call your business dealer, Amila Perera, from Motors and Machines, but he's not there, you just want to leave a message for him to call you back as soon as possible as one of the machines you bought from them is making a strange, vibrating noise. Follow these clues. Write 6 exchanges.

A : Good morning, Motors and Machine. How can I help you?

B : Good morning, I would like to speak to Mr. Amila Perera.

[05 Marks]

b) Write a formal email by using the following information:

As a supplier, write an email to the manager of M/S Big wheel Manufacturing Company, Mr.Deepal, intimating of their payment that is due for the products delivered to them three months ago. Sign the email as Ramesh. Use all the phrases given below along with your own phrases. (Minimum 50 words)

On time - delivery of goods - three months - credit period - overdue - payment - of the earliest - longstanding - relationship

[05 Marks]

Q4.

Write short notes on the following:

- a) Telephone etiquette
- b) Email etiquette
- c) Professionalism
- d) Interview skills
- e) Importance of communication skills for a successful engineer

Write at least 80 words each.

[10 marks]

Q5.

- a) You work for an international company. You have seen an advertisement for a training course which will be useful for your job.

**Write a letter to your manager to request for job training. In your letter**

- describe the training course you want to do
- explain what the company could do to help you
- say how the course will be useful for your job

Write at least 100 words.

[05 marks]

- b) You recently received a letter from a friend asking for advice about whether to go to college or to try to get a job. You think he/she should get a job.

**Write a reply to this friend. In your letter:**

- say why he/she would not enjoy going to college
- explain why getting a job is a good idea for him/her
- suggest types of job that would be suitable for him/her

Write at least 100 words.

[05 marks]