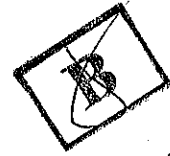


THE OPEN UNIVERSITY OF SRI LANKA
Faculty of Engineering Technology
Department of Electrical & Computer Engineering



Bachelor of Software Engineering

Final Examination (2016/2017)
ECJ4160 - Communication Skills for Engineers

Date: 07th November 2017 (Tuesday)

Time: 9:30 am – 12:30 pm

INDEX NO:

Answer all questions on the question paper itself.

Please follow the instructions carefully. Marks may be deducted if instructions have not been followed properly.

Grammar and vocabulary

Q1. Fill in the gaps of the passage below with words from the box.

market	genuine	Atlanta	biometric
airports	commercial	growing	hand-key
verification	law-enforcement	irregularities	applications
hand scanner	control	passengers	

Fingerprint scanners are the most widely deployed type of¹
 application, thanks to their² use over the last 20 years by
³ agencies. Sixteen American states now use biometric
 fingerprint⁴ systems to check that people claiming welfare
 status are⁵.

To date, the most widely used⁶ biometric system is the hand-
 key, a type of⁷ which reads the unique shape, size and
⁸ of people's hands. Originally developed for nuclear power
 plants,

the⁹ received its big break when it was used to
¹⁰ access to the Olympic Village in
¹¹ by more than 65,000 athletes, trainers and support staff. Now there are scores of other
¹².

Around the world, the¹³ is growing rapidly. Malaysia, for example,
 is preparing to equip all of its¹⁴ with biometric face scanners to
 match¹⁵ with luggage.

(15 marks)

Q2.

Write the correct form of the verbs given within brackets to complete the passage below.

In collaboration with Intel EM Limited, the Ministry of Education¹
 (present) 20 schools in the country with 425 units of Intel-powered Classmate PCs yesterday at
 Isurupaya, Battaramulla. This² (identify) as an innovative scheme
 taken by the Ministry to incite IT education in the island, following the government's recent
 announcement that 2009 was the Year of English and Information Communication Technology
 (ICT). The launch of these ambitious connectivity programmes³
 (highlight) the skills and knowledge of school students in both rural and urban areas. "These plans
⁴ (work) well," according to the Spokeperson for the Minister of
 Education, "It⁵ (offer) school communities a localised electronic
 curriculum, internet accessibility, educational information sharing and promotes the use of emails
 as a mode of effective communication," said Spokesperson for the Minister of Education.

He also⁶ (state) that the daily reach of Lankan students for Internet
 education websites through SchoolNet⁷ (reach) an approximate
 number of 300, highlighting the distribution of IT knowledge through the connectivity programme.

Spokesperson for the Minister of Education also⁸ (say) that many schemes⁹ (be) underway to better promote ICT education to help realise educational reforms. He further said that the ministry¹⁰ (have) plans to promote a number of innovative projects during the year, such as, a 1000 additional Computer Learning Centres, 800 schools with broadband connectivity under SchoolNet, relaunch of the Teacher PC programme, Wi-Max and Wi-Fi wireless technologies with laptops for deserving schools. Director of Secondary Education Modernization Project (SEMP),¹¹ (assure) that the e-Sri Lanka initiative¹² (begin) with a national commitment to empower 60% of the nation's population with e-literacy by the end of 2010. Along with increasing broadband penetration, especially in rural areas of the island, the initiative¹³ (plan) to expand its service to provide 2800 Computer laboratories, while¹⁴ (connect) 1700 schools via the SchoolNet network and having a spread of about 200 websites in schools, as well as¹⁵ (promote) career based ICT education for school leavers at 1500 rural computer learning centres.

(15 marks)

Q3.

Complete the following passage with the linking words/phrases given in the box below. You may use one word/phrase more than once.

while	whereas	but also	as well as
not only	for instance	also	however

Software piracy can, and does occur just about anywhere;¹, piracy rates and the associate dollar losses vary widely across countries.², China, Indonesia and Vietnam maintain some of the highest software piracy rates (typically around 90%),³ the US has one of the lowest rates (around 21%). Compared to those estimated for Europe, the relative size of piracy markets in developing countries,

.....⁴ is small. Indonesia and China,⁵ account for losses of \$ 350 million and \$ 96 million respectively,⁶ losses in the US (\$ 8.1 billion) and Western Europe (\$ 10.6 billion) are considerably higher.

The accelerating growth of new software users in emerging markets,⁷ the increase in the availability of bogus software through the internet and peer-to-peer networks could very well sustain the rates of piracy. Lack of enforcement and awareness might⁸ potentially exacerbate the problem. These trends seem to indicate that we may continue to see high rates of piracy and much greater financial losses.

But, software piracy is even more menacing than the preceding text suggests. It⁹ diminishes revenues and profits for companies,¹⁰ changes the competitive landscape.

(10 marks)

Reading

Q4. Read the following text and answer the questions.

A jet aircraft technician peers into the **bowels** of a malfunctioning engine searching for the source of the problem. Finally, he **spots** it. Buried deep within the engine is the troublesome part. He will have to replace it. A complicated procedure, to say the least.

The technician goes to his high-powered workstation attached to a network and calls up the information on the part and the **replacement** procedure. An image of the part seated on the engine appears. In another window, an instructor demonstrates the repair procedure in full-motion video, while the technician listens through the audio channel as the instructor explains the process. Diagrams pop up to further clarify key points. In a text window, he reviews lists of necessary parts and tools he will need to complete the repair.

Still confused about an irregularity in this situation, the technician presses the help key and a real-time image of a live supervisor **pops up** in another window. Using the attached microphone, the technician discusses the particular problem with the supervisor, who directs more information onto the technician's screen. The technician points a video camera at the part in question to show the supervisor the specific situation.

Welcome to the world of high-end multimedia. The situation described above is not quite here yet, but most of the pieces already exist to make this scenario become a reality using a networked RS/6000 or other high-powered workstations.

Or, take this example of a **scenario** that is more likely today. A manager creates a detailed business presentation involving text, graphics, digitized photographic still images and tables of spreadsheet data, all combined in a single **compound** document. Before sending the document across the network to a colleague, the manager picks up the microphone and attaches an audio note to one of the tables, reminding *him* about something unusual or potentially confusing in the accompanying figures.

Using a networked RS/6000 equipped with the necessary audio boards and Bolt Baranek & Newman's (Cambridge, Mass.) BBN/Slate, a compound document/office application, this scenario is possible today. High-end multimedia is only in its **infancy**, but it is here. And over the next few years, industry observers expect multimedia development to accelerate as current barriers are overcome.

Multimedia is not a new **phenomenon**, although it is new to business computing. We live in a multimedia world. At home, we experience a variety of media through our television: full-motion video, still images, graphics, sound and animation. At school, we learn through systematic exposure to different media: the instructors' words, text, audio tapes, graphics and a variety of visuals and video.

Computers, however, have tended to be uni-medium. Traditionally, computers have been text-based, and this continues to be the primary format for business information. A few systems have provided sound or graphics, but until recently, the efforts were **rudimentary** compared to the **seamlessly** integrated, high quality visuals, video and audio we experience every evening at home.

1. Which one of these sentences best summarises the text you just read. **Tick the correct option:**

- a Computers cannot yet match the technological achievements of conventional audio systems. (.....)
- b Although multimedia computers are improving very fast, they do not yet reflect the multimedia world we are already living in today. (.....)
- c Multimedia computer technology will soon be widely used in business, industry and the home. (.....)

(3 marks)

2. Decide if the following statements are true (T) or false (F) based on the above passage. Write 'T' or 'F' against the statement.

- a The jet aircraft technician first locates the faulty part and labels it. (.....)
- b The technician calls up his supervisor from his workstation to get information about the faulty part and replacement procedure. (.....)
- c The technician is able to display a computer-generated graphical representation of a supervisor on his screen. (.....)
- d The supervisor looks at the faulty part to understand the problem. (.....)
- e This kind of repair procedure could well be possible before long. (.....)
- f Adding audio notes to computer-generated documents is yet to be a possibility. (.....)
- g The advancement of multimedia is unlikely to speed up in the next few years. (.....)
- h You can buy multimedia business presentation applications today. (.....)
- I Top quality multimedia is yet to be fully developed. (.....)
- j Industrial experts expect multimedia development to speed up. (.....)
- k Multimedia has been in existence before the invention of the computer. (.....)
- l In terms of quality, multimedia computer systems have only recently become comparable with the media we already use. (.....)

(12 marks)

3. What do these words mean in the passage? Tick the correct option.

- 1) bowels
 - a. inside
 - b. remotest part
 - c. intestines

- 2) spots
 - a. detects
 - b. marks
 - c. blotches

- 3) replacement
 - a. taking place
 - b. substitution
 - c. filling in

- 4) pops up
 - a. explodes
 - b. goes off
 - c. appears

- 5) scenario
 - a. situation
 - b. surroundings
 - c. backdrop

- 6) compound
 - a. synthesized
 - b. complicated
 - c. composition

- 7) infancy
 - a. babyhood
 - b. elementary
 - c. early stages

- 8) phenomenon
 - a. sensation
 - b. occurrence
 - c. spectacle

- 9) rudimentary

- a. basic b. primitive c. developed

10) seamlessly

- a. closely b. jointly c. smoothly

(10 marks)

4. What do these words refer to in the passage?

a. *he* (paragraph 2)

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b. *who* (paragraph 3)

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c. *him* (paragraph 5)

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(3 marks)

Q6. You are currently working as a QA Tester at ABC Co. Ltd. You see the following job advertisement in the advertiser's website and want to apply for it. You hold a BSc in Computer Science from the University of Colombo and your experience at ABC Co. counts three years.

Write a cover letter. Invent details as necessary, particularly in support of the job requirements.

QA Engineer

Millenium Technologies is a pioneer in providing world class software solutions to the finance industry. Our solutions are targeted to cater to the micro and macro level organisational and information needs of stock brokerage firms.

We have a long tradition of excellence in performance in the global financial service market. We enable our employees to bring out their best and grow with us, while creating a friendly working environment where intelligence and creativity get rewarded.

Requirements

- BSc in Computer Science or equivalent
- 2 years experience, preferably in a similar capacity
- Ability to handle multiple projects and meet deadlines
- Excellent communication and interpersonal skills
- Strong analytical and conceptual skills
- A good team player

Interested applicants may e-mail a detailed CV to careers@millenium.technologies.com,

addressed to Assistant HR Manager, Millenium Technologies, 15, Sirikotha Lane, Colombo 3.

