The Open University of Sri Lanka
DEPARTMENT OF ELECTRICAL & COMPUTER ENGINEERING
Bachelor of Software Engineering
ECJ4160 Communication Skills for Engineers
FINAL EXAMINATION 2012/13 (*CLOSED BOOK*)

Index No. : .....

DATE : 03-08-2013 **Time : 0930 - 1230**

Read the instructions carefully and answer all questions. Write your answers on the question paper itself, except the writing tasks in questions 4 and 5.

Grammar and vocabulary

1. **Fill in the gaps** of the passage with the correct form of the verb given within brackets.

A driving force behind global technology, Intel (1) ..... (continue) to shape the world today as the world leader in silicon innovation. Founded in 1968 to build semi-conductor memory products, Intel (2) ..... (strongly focus) on empowering the next generations by (4) ..... (transform) the lives of millions through education. In Sri Lanka, the company (5) ..... (work) closely with communities and schools to bring resources and solutions for the advancement of education.

As a pioneer in the upliftment of ICT in Sri Lanka, Intel (6) ..... (be) in the forefront of many significant programmes across the island. The Intel Teach Programme (7) ..... (enable) and (8) .....(empower) teachers to engage their students with word tools through the use of technology in learning, thinking and communicating. The programme (9) ..... (consider) as being the largest and most successful of its kind and (10) ..... (carry out) in various provinces in Sri Lanka.

Another innovative and pioneering initiative (11) ..... (be) the official website of school learning and teaching programme, which (12) ..... (provide) valuable tools that are set to revolutionize the level of learning. Skool.lk on which the school learning and teaching programme is found, (13) ..... (offer) teachers and students the necessary tools and resources to enhance the level of education. The 'skool' website (14) ..... (originate) when a MOU (15) ..... (sign) for a pilot project in 2007.

(15 marks)

2. **Fill in the gaps** of the passage with words from the box.

transparency	frustrations	outweighed	for
far-reaching	to	different	appearance
interactions	hyperlinks	with	downsides
the	of	a	

On August 6th, twenty years ago, Tim Berners-Lee posted a summary of a project (1) ..... organizing information on a computer network using a 'web' of (2) ..... : the 'World Wide Web' or W3. At the same time, the W3 made its (3) ..... as a publicly available service in (4) ..... Internet.

There have been some definite (5) ..... to the Web, such as online predation and (6) ..... reduction in privacy, but the good has far (7) ..... the bad. Web companies have created millions (8) ..... jobs across the globe, opened people up (9) ..... different cultures and ideas, and created a level of (10 ..... in politics that has never quite been achieved before.

Through social, political, economic and political actions online, the world has become entirely (11) ..... than it was two decades ago. News travels faster than ever; every single person (12) ..... access to the Internet has a voice to vent (13) ..... or foster a following, and social (14) ..... have become more varied and (15) ..... .

(15 marks)

3. **Complete the text below** by choosing and writing the correct word of the two given.

Since the late 1990s internet-based teaching (also known as e-education) has emerged as a potential rival to traditional classroom learning. The former normally involves having access to a secure site on the internet where a graded series of lessons is available, which have assignments sent and returned by e-mail. (1) ..... (Although, However), online courses are now offered by many institutions, it is by no means clear that they offer real advantages compared with classroom education.

Two main advantages of internet use in education are put forward. (2) ..... (For example, Firstly), it is seen as more economical, in that once a course is prepared, it can be used by large numbers of students. The savings made by not having to employ so many teachers should be reflected in cheaper course fees. (3) ..... (Next, The second) benefit is convenience; instead of having to attend classes at fixed times and places, students are free to study when they choose and progress at their own pace. (4) ..... (Furthermore, Nevertheless), in studying from home there is no need to travel to the college or university, which saves both time and money. A student living in a small town in China, (5) ..... (for example, similarly), can now study a course at an American college without the worry of travelling, accommodation or homesickness.

(10 marks)

Writing

4. You work for a company which markets AVG virus guards. AVG is a leading product in online threat protection. The AVG Internet Security offers ultimate protection for everything done online. It has a number of features which includes firewall and identity protection for online shopping and banking, real-time protection for surfing the Web, social networking protection, online shield for downloading and sharing files as well as sending messages safely, anti spam for blocking spammers and scammers and smart scanning for scanning smarter and faster.

A client phoned you this morning to inquire about the AVG Internet Security 2013. **Write an e-mail** to the client giving product information. Invent details as necessary.

(20 marks)

5. As Technical Services Supervisor, you supervise a group of computer technicians in your company. An important task of computer technicians is to update the Technical Services Log Book after each shift. Often you find the log book is not updated, which leaves many technical faults to be unrecorded, resulting in frequent service breakdowns.

Write a memo to all computer technicians detailing the problem and instructing them to ensure that the log book is updated after each shift.

(15 marks)

Reading

6. **Read the text below and answer the questions.** Write answers on the space provided.

We've all seen the movie. Super- intelligent machines are about to inherit the Earth. And we're going to end up as members of an underclass.

Unfortunately, the current advocates of this idea are not movie makers but certain robotics researchers. Worse, they are being taken seriously everywhere, even by the Royal Institution, where roboticist Kevin Warwick is giving this year's Christmas Lectures. Worse still - and every researcher should have this imprinted on their forehead - silly idea equals loss of cash from serious funding agency.

So what are these roboticists saying? Well, Hans Moravec reckons the robot-rule scenario is a good thing because we will hand on civilization to our cyber-children. Warwick envisions robots snatching the world before we want to hand it over. In Belgium, Hugo de Garis fears a war between robots and humans. Meanwhile, Ray Kurzweil sees nanocomputers in our brains letting us join the super-intelligence party.

For my money, all this is closer to conjuring tricks than science. As with all the best conjuring tricks, the effect is achieved by distracting us with 'astonishing facts' while two enormous assumptions are sneaked by. The astonishing facts are to do with Moore's law, which predicts that computers double in power every eighteen months. That doubling is why everyone buys it.

That and the fact Moore used it to come up with a very useful benchmark: the power you can buy for $ 1000 doubles in eighteen months. The magic of this kind of exponential growth is that it doesn't matter if we have underestimated the power of the human brain by a factor of 100 - we'd only have to wait another 10.5 years for computers to be a hundred times more powerful.

The first assumption, then, is this increase in computer processing power automatically means an increase in the intelligence in whatever is using these computers for brains. This increase in 'intelligence' has happened in some areas of robotics and Artificial Intelligence research, but for machine intelligence to keep step with machine power, it must always happen, not often happen. So far, we've done badly with giving machines humanlike common sense or ability to learn - prerequisites for AI. Add to this Hofstadter's law of software development - the problem is much more difficult than you think, even when you take this into account - and you can see why the optimists have a poor record.

The second assumption is to do with evolution. Now evolution disposes us to stay alive by supposing that anything displaying aspects of animate behaviour is animate. Our problem is that while we know teddy bears are not real, we are willing to endow intelligent contraptions with the full orchestra of creaturehood on hearing a few flute-like notes. None of which would matter were it not for the little matter of government funding. Funding agencies have a nasty habit of making funds harder to get in an area which has been guilty of making very exaggerated claims. So let's be careful. We don't want the world's most interesting science to be confused with marketing hyperbole.

(1) Which of the following sums up the main idea of this article?

a Robots will take over the earth.
b Robots do not match human intelligence.
c The future of robotics depends on funding.

(3 marks)

(2) Which of the following statements accurately reflect the writer's views? Answer 'Yes' or 'No' by writing against the statement.

a The idea that the robots will take over the earth is silly.

b It is unfortunate that some authorities are taking seriously such claims by robotics researchers.

c Humans will be an underclass in the future.

d According to Moravec, robots will take over human activities.

e Kurzweil believes that our brains contain tiny computers.

f The predictions of some robotics researchers are based on false assumptions.

g According to Moore, computing power increases every couple of years.

h An increase in processing power does not mean an equal increase in robotic intelligence.

i Giving machines common sense and the ability to learn has served well.

j Not everything that displays aspects of animate behaviour is animate.

k Making exaggerated claims for robotics is dangerous because this may put government funding for robotics at risk.

l Robotics is like marketing.

(12 marks)

(3) Complete the following summary of the text by choosing the correct words from the box and writing them in the gaps provided.

common	distracted	funding	animate	silly
exaggerated	unfortunate	processing	assumptions	think

The idea that robots will take over the earth is (1) ..... and it is (2) ..... that some authorities are taking seriously such claims by some robotics researchers.

Their predictions are based on two false (3) ..... . We accept them because we are (4) ..... by 'astonishing facts' linked to Moore's Law on the doubling of computing power every eighteen months. The first is that an increase in (5) ..... power equals an increase in robotic intelligence. This is false because we haven't done well in giving machines (6) ..... sense and the ability to learn. In addition, a problem is more difficult than we (7) ..... even when we take this unanticipated difficulty into account (Hofstadter's Law). The second assumption is that anything which displays (8) ..... behaviour is animate. Because robots show some minor aspects of animate behaviour, we assume they are animate. Making (9) ..... claims for robotics is dangerous because government (10) ..... is at risk.

(10 marks)