Alexandria University

Faculty of Engineering Department of Elect. Engineering November 2014



جام عه الإستعدري كلية الهندسة قسم الهندسة الكهربية نوفمبر 2014

كتابة التقارير الفنية

الفرقة الثالثة (إلكترونيات وإتصالات)

الزمن: 60 دقيقة

Technical Reports Writing (HS x12) Third Year, Electron. Comm. Time allowed: 60 minutes

Choose the Best Answer

Question 1:

Technical writing is different than literary writing because its sentences and phrases:

- 1. Provide rich and various correct meanings
- 2. Provide a room of imagination in the mind of the reader
- 3. Create positive emotions and feelings in the heart of the reader
- 4. Provide exact and accurate meanings
- 5. All of the above

Ouestion 2:

Technical writing skills are important because:

- 1. Good reports give good impression about the knowledge of the writing engineer
- 2. Professional engineers spend more about 30% of their time writing technical materials
- 3. Technical writing is an important way of communicating engineering information to the public
- 4. Technical writing is an important way of communicating engineering information to other engineers
- 5. All of the above

Question 3:

Which of the following is not considered technical writing?:

- 1. Microwave oven user manual
- 2. Marketing brochure about the new car model
- 3. Email to the company manager to inform him/her about the delay in production line
- 4. Article in a children magazine to explain how TV works
- 5. None of the above

Question 4:

The editor of a general public newspaper "Today" requested an engineer to write an article about the 4'th generation cell phones. In some part he wrote: "One of the challenges of 4'th Generation cell phones is intermodulation distortion. It occurs because of the power amplifier non-linearity which generates 3rd order harmonics." The editor of the newspaper did not publish this article. What is the most probable reason?:

- 1. The information is not accurate.
- 2. The new cell phone's technology is not interesting to the public
- 3. The author did not assess the newspaper readers background properly
- 4. The problem of intermodulation was resolved by the time the article was ready
- 5. None of the above

Question 5:

The board of directors of the "Silver Star Technology" company decided that reports written by their engineers should be easily distinguished from the reports from the "Golden Sun Technology" company. Therefore, the board decided one of the following points. Choose the correct one:

- 1. All reports should have the "Silver Star Technology" company logo.
- 2. All reports should be printed on a silver colored papers.
- 3. All reports should follow the new format of the company's reports
- 4. The word "Silver Star" should be written in the title with bold letters and a large font
- 5. The word "Golden Sun" should not appear in any document

Ouestion 6:

Samar is a quality assurance engineer in a company that produces T-shirts. She is requested to make several measurements on a batch of T-shirts that will go to the market the following week. She must also write a report for upper management about the quality of this batch. All measurements were good except one case, where she found a fault in most T-shirts. To cover-up the mistake of her friends in the production department she decided to list only the correct measurements in her report and ignore the fault measurement. She was later discovered and fired from the company because: (Choose the best answer)

- 1. She ignored safety information in her report
- 2. She tampered with the measurement results in her report
- 3. She withheld adverse information in her report
- 4. She wrote an unclear report
- 5. She provided false data in her report

Question 7:

Aly is a Master student in the Faculty of Engineering, Sumasru University. He is writing a technical paper to submit to an IEEE conference in Switzerland. Since the deadline was very soon and his results were not ready yet, Aly copied some results from a research paper that was published recently in Australia as if they are his own work. This act was discovered by the conference reviewers and Aly's behavior was described as: (Choose the best description)

- 1. Act of ignorance
- 2. Act of deception
- 3. Act of *plagiarism*
- 4. Act of cheating
- 5. This is OK, no problem

Question 8:

Hala is an undergraduate student in the Faculty of Engineering, Befana University. She is writing a report on the benefit of C language in embedded systems. Although C language is important in embedded systems she ignored to provide a reference to her preferred C-language textbook. Her professor considered this as an: (Choose the best description)

- 1. Act of ignorance
- 2. Act of deception
- 3. Act of plagiarism
- 4. Act of cheating
- 5. This is OK, no problem

Ouestion 9:

When we write papers to an IEEE conference we should follow the IEEE format. Following is a correct example to cite another IEEE paper (select the correct one):

- [1] C. R. Anderson and T. S. Rappaport, "In-Building Wideband Partition Loss Measurements at 2.5 and 60 GHz," *IEEE Trans. Wireless Commun.*, vol. 3, no. 3.
- [2] C. R. Anderson and T. S. Rappaport, "In-Building Wideband Partition Loss Measurements at 2.5 and 60 GHz," *IEEE Trans. Wireless Commun.*, vol. 3, no. 3, May 2004, pp. 922–28
- [3] C. R. Anderson and T. S. Rappaport, "In-Building Wideband Partition Loss Measurements at 2.5 and 60 GHz," *IEEE Trans. Wireless Commun.*, vol. 3, no. 3, pp. 922–28
- [4] C. R. Anderson and T. S. Rappaport, "In-Building Wideband Partition Loss Measurements at 2.5 and 60 GHz," vol. 3, no. 3, May 2004, pp. 922–28
- [5] All the above is correct

Ouestion 10:

Spell checking is very important in technical writing. Poor spelling is very annoying and lowers the value of the documents. Electronic spell check is easy but it is not sufficient because : (Choose the best reason)

- 1. Many new words are added to English language every day
- 2. Electronic spell check is not suitable for technical English
- 3. Electronic spell check may skip some errors in spelling
- 4. Some words with correct spelling may be misused
- 5. Electronic spell check ignores upper-case words

Question 11:

Tablets are empowered with a multitude of sensors such as barometers, GPS, and accelerometers, that make no sense in a stationary PC. However, when at home or the office, I feel more comfortable interfacing with a physical keyboard, a large display, a powerful processor, and lots of memory.

The previous paragraph contains "commas" of the following types:

- 1. Serial commas only
- 2. Introductory words commas only
- 3. Both serial commas and introductory words commas
- 4. Neither serial commas nor introductory words commas

Question 12:

The following paragraphs contains usage of the <u>semicolons</u>. Select the one with the best and correct usage:

- 1. I recorded an interview in a studio with walls of all glass, stone, and metal; the resulting recording sound was so bad that no broadcast-quality segment could be taken from it
- 2. I recorded an interview in a studio with walls of all glass; stone; and metal, the resulting recording sound was so bad that no broadcast-quality segment could be taken from it
- 3. I recorded an interview in a studio with walls of all glass, stone, and metal. The resulting recording sound; was so bad that no broadcast-quality segment could be taken from it
- 4. I recorded an interview in a studio with walls of all; glass, stone, and metal. The resulting recording sound was so bad that no broadcast-quality segment could be taken from it

Question 13:

The following paragraphs contain usage of the semicolons. Select the one with the best and correct usage:

- 1. Nikola Tesla; the great scientist; died in 1943. His death was not acknowledged. World War II was consuming the country, and his major achievements were already 40 years old.
- 2. Nikola Tesla, the great scientist, died in 1943. His death was not acknowledged; World War II was consuming the country. His major achievements were already 40 years old.
- 3. Nikola Tesla, the great scientist, died in 1943. His death was not acknowledged. World War II was consuming the country, and his major achievements; were already 40 years old.
- 4. Nikola Tesla, the great scientist; died in 1943. His death was not acknowledged. World War II was consuming the country, and his major achievements were already 40 years old.

5.

Question 14:

The following paragraphs contain usage of the <u>colons</u>. Select the one with the best and correct usage:

- 1. Detecting sodium and chloride ions requires two things: 1) an electrode coated with an ion-selective membrane, and 2) a reference electrode, typically made of silver chloride.
- 2. Detecting sodium and chloride ions requires two things. 1) an electrode coated with an ion-selective membrane: and 2) a reference electrode, typically made of silver chloride.
- 3. Detecting sodium and chloride ions requires two things. 1) an electrode coated with an ion-selective membrane: and 2) a reference electrode, typically made of silver chloride.
- 4. Detecting sodium and chloride: ions requires two things. 1) an electrode coated with an ion-selective membrane, and 2) a reference electrode, typically made of silver chloride.

Question 15:

The following paragraphs contain usage of the <u>colons</u>. Select the one with the best and correct usage:

- 1. The basic problem is this. The required signals are present at such a low level: that they can't generate enough voltage or current to overcome noise.
- 2. The basic problem is this. The required signals are present at such a low level that they can't generate: enough voltage or current to overcome noise.
- 3. The basic problem is this: The required signals are present at such a low level that they can't generate enough voltage or current to overcome noise.
- 4. The basic problem is this: The required signals are present at such a low level that they can't generate enough voltage: or current to overcome noise.

Question 16:

The following paragraphs contain usage of the <u>parentheses</u>. Select the one with the best and correct usage:

- 1. This phone is built around an ARM chip (a Broadcom BCM2835) since ARM currently dominates the world of smart phones.
- 2. This phone is built around an ARM chip a Broadcom BCM2835 since ARM currently dominates (the world of smart phones).
- 3. This phone is built around an ARM chip a Broadcom BCM2835 since ARM (currently dominates the world) of smart phones.
- 4. (This phone is built around an ARM chip) a Broadcom BCM2835 since ARM currently dominates the world of smart phones.

Question 17:

The following paragraphs contain usage of the <u>dashes</u>. Select the one with the best and correct usage:

- 1. The company hired 3000 employees 800 more than planned. However, the budget— was sufficient and the work was efficient.
- 2. The company hired 3000 employees—800 more than planned. However, the budget was sufficient and the work was efficient.

- 3. The company hired 3000 employees 800 more than planned. However, the budget was sufficient—and the work was efficient.
- 4. The company hired 3000 employees 800 more—than planned. However, the budget was sufficient and the work was efficient.

Question 18:

The following paragraphs contain usage of the <u>dashes</u>. Select the one with the best and correct usage:

- 1. Many engineers hired into the auto industry will need backgrounds in *mechatronics*, a combination of mechanical, electrical—and software engineering
- 2. Many engineers hired into the auto industry will need—backgrounds in *mechatronics*. *Mechatronics* is a combination of mechanical, electrical, and software engineering
- 3. Many engineers hired into the auto industry— will need backgrounds in *mechatronics*. *Mechatronics* is a combination of mechanical, electrical, and software engineering
- 4. Many engineers hired into the auto industry will need backgrounds in *mechatronics*—a combination of mechanical, electrical, and software engineering

Question 19:

The following paragraphs contain wrong usage of the hyphens. Select the one with the wrong usage:

- 1. I bought a high-quality roller-ball pen.
- 2. Running the lab is a bit like running a start-up company.
- 3. The lab's mission- is to give students experience in all aspects of electronics
- 4. With the lab completely student-run, students learn more than before

Question 20:

The following paragraphs contain a subject-verb error. Select the one with the error:

- 1. The company, which includes 100 engineers and 200 technicians, decides to shut-down
- 2. The company, which includes 100 engineers and 200 technicians, decided to shut-down
- 3. The company, which includes 100 engineers and 200 technicians, decide to shut-down
- 4. The company, which includes 100 engineers and 200 technicians, made a decision to shut-down

Question 21:

The following paragraphs contain a subject-verb error. Select the one with the error:

- 1. A three-phase power supply is needed for the motor
- 2. A three-phase power supply was needed for the motor
- 3. A three-phase power supply were needed for the motor
- 4. A three-phase power supply is not needed for the motor

Question 22:

The following paragraphs contain lists. Select the one with best parallelism:

- 1. For operating a successful business there are 3 main points to take care of: 1- Selecting the best employees, 2- We follow the best guidelines, and 3- Tracking the market closely.
- 2. For operating a successful business there are 3 main points to take care of: 1- Selecting the best employees, 2-Following the best guidelines, and 3- Tracking the market closely.
- 3. For operating a successful business there are 3 main points to take care of: 1- Make sure to select the best employees, 2- It is important to follow the best guidelines, and 3- Tracking the market closely.
- 4. For operating a successful business there are 3 main points to take care of: 1- Selecting the best employees, 2-Following the best guidelines, and 3- It is essential to track the market closely.

Question 23:

The following sentences contain abbreviations. Select the one with correct guidelines:

- 1. My computer needs at least 4G byte of Random Access Memory (RAM) to be able to run this game
- 2. My computer needs at least 4G byte of Random Access Memory (ram) to be able to run this game
- 3. My computer needs at least 4G byte of Random Access Memory (Ram) to be able to run this game

Question 24:

Select the equation that follows the best format:

1.	$z = \sin(x) + 3\log(y)$	2.	$z = \sin(x) + 3\log(y)$
3.	$z = \sin(x) + 3\log(y)$	4.	z = sin(x) + 3log(y)

Question 25:

Select the best description of the content of a technical document summary:

- 1. The summary should include the key findings and the document organization
- 2. The summary should include the main ideas and key findings
- 3. The summary should include the document organization and conclusion
- 4. The summary should include the document organization and the recommendations

Question 26:

In the body of technical documents the main ideas must be easily accessible to the reader. Select the best guideline from the following to achieve this goal:

- 1. The document should use punctuations correctly
- 2. The document should include sufficient headings and sub-headings
- 3. The document should include a well-written summary
- 4. The document use sufficient number of formulas and equations

Question 27:

Select the sentence with best organization:

- 1. Customers want more data at faster speeds to run ever more sophisticated applications.
- 2. More data at faster speeds are wanted to run ever more sophisticated applications.
- 3. Customers are required to run more data at faster speeds to run ever more sophisticated applications.
- 4. Sophisticated applications are required by customers to use more data at faster speeds

Question 28:

Select the best technical sentence to describe the 5'th generation of cell-phone system (LTE-Advanced):

- 1. LTE-Advanced is designed to theoretically achieve data download rates that can reach as high as 3 gigabits per second and upload rates that can reach as high as 1.5 Gb/s.
- 2. LTE-Advanced can theoretically achieve data download rates as high as 3 gigabits per second and upload rates as high as 1.5 Gb/s.
- 3. LTE-Advanced can theoretically achieve astonishingly high download and upload data rates.
- 4. LTE-Advanced can theoretically achieve very high data download rates but lower upload rates.

Ouestion 29:

Select the best technical sentence to describe the new wireless communications technology called MIMO:

- 1. MIMO allows base stations and mobile units to send and receive data using multiple antennas.
- 2. MIMO allows base stations and mobile units to utilize multiple antennas to send and receive data between them.
- 3. MIMO Wireless Antenna Technology allows base stations and mobile units to send and receive data.
- 4. MIMO allows base stations and mobile units to be able to send and receive data using multiple antennas.

Question 30:

In the following two technical sentences the first is better than the second. Select the most probable reason:

- Wi-Fi has become an essential wireless technology in our daily lives, although the original intention of its
 introduction was to replace Ethernet cable. In this article, we outline the most remarkable features introduced
 during its ongoing technological evolution in terms of three major directions: throughput enhancement, long-range
 extension, and greater ease of use.
- Wi-Fi has become an essential wireless technology in our daily lives. The original intention of its introduction was to replace Ethernet cable. In this article, we outline some features introduced during its evolution in terms of three major directions: increasing throughput, long range extension, and ease of use.

1- Better coherence by connecting ideas	2- Better use of punctuations
3- Better parallelism	4- All the above