
	Mansoura University Faculty of Engineering BME Program	
Writing Technical Reports	UNR131	For level 100 BME Students
Date: 1/9/2019	Allowed Time : 120 min	Total Marks: 50 Mark
Summer semester 2018/2019	Final-Term Exam	3 pages

### First Question (1 Mark for each Point)

Determine whether the following statements are true or false

1. The abstract is the right place for prior related works, and the general overview.
2. The introduction includes recommendations for future work, such as implementation of a design.
3. Figure/tables are placed after they are mentioned in the text.
4. Technical writing is characterized by emotional impact.
5. The acronyms must be defined at every use in your paper
6. Informative titles indicate the subject matter of a paper and give no indication of any results obtained or conclusions drawn.
7. The abstract should contain vague statements to force the reader reading the main text
8. In presentation, ignoring audience helps you be more effective.
9. Self confidence in interview creates bad impression
10. In interview, Careless appearance creates bad impression
11. In interview you should emphasize on salary
12. You should use examples from your actual work experience to answer questions during a job interview.
13. At the end of the interview, you should always ask about the next step in the process.
14. Descriptive abstract contains results, conclusions, and recommendations.
15. It is recommended to Imitate excellent speakers to present effective presentation

### Second Question (1 Mark for each Point)

Complete the following statements

1. Your sponsor and individuals outside of your team who have helped you must be mentioned in the ...
2. The ... section of the paper allows any electrical or computer engineer to duplicate your results.
3. "The effectiveness of wireless networks in modern systems" This is an ... title.
4. The ... are the heart of your paper
5. The ... helps readers to decide if the article is relevant for their purposes or not.
6. ... is the process of copying passages of text from someone else's work and use them as if they were one's own.
7. ... is a software dealing with student's paper submission, and originality checking for plagiarism detection.
8. During negotiation, you must give ... about you heard to allow the other person to correct any misunderstandings
9. "Can you tell me a little bit more about why you registered in summer semester?" This is a ... question.
10. When preparing presentation, you could emphasize important statements in the slide by ...

### Third Question (1 Mark for each Point)

Read carefully this abstract and then answer the following questions;

A Wireless Sensor Network (WSN) is a group of tiny power-constrained nodes that cover a vast region of interest (ROI), sense and communicate it to the Base Station (BS). The main challenge encountered in WSNs is how to cover the ROI perfectly and transmit the monitored data to the BS for the longest possible time. Although many energy-efficient routing protocols for periodic monitoring applications were recently introduced, the dynamic nature and complex environments of WSN applications make building such protocols a considerable challenge. In this paper, the node degree of the Degree Constrained Tree (DCT) in homogeneous proactive WSN is studied analytically for the network with one BS that is outside the ROI. Since the node degree affects the network lifetime of these types of networks, the optimum node degree for minimum energy consumption in DCT is derived. Subsequently, the paper proposes a Collaborative Distributed Antenna (CDA) routing protocol that is based on distributed antenna theory to provide fair load distribution in terms of transmission energy. CDA is based on DCT with optimal node degree and is designed for periodic data monitoring in WSN applications. The experimental results prove our analysis to emphasize that using optimal node degree in DCT doubles its network lifetime compared to using other node degrees. Moreover, adding CDA to DCT with optimal node degree is proved to double the network stability period and reduce the ratio between instability period and the network lifetime to its half. It also shows 25% increase in network lifetime and minimum rate of node loss compared to its peers, such that the lifetime of half the nodes is preserved until few rounds before the end of network lifetime.

1. This abstract is descriptive or informative?
2. What the author did?
3. How the author did it?
4. What the author found?
5. What the author concluded?

### Fourth Question (2 Mark for each Point)

Write a short note about the following

1. Define the technical writing; state five types of Technical reports.
2. Explain the main sections of scientific paper.
3. Define the plagiarism and explain how to avoid it.
4. What are negotiation skills, give an example of any negotiation you have done showing negotiation needs and interests.
5. What should you do when presenting an effective conference presentation?



### Fifth Question (10 Marks)

The pie charts show the electricity generated in Germany and France from all sources and renewables in the year 2010

Germany Electricity Generation, 2010, 500 Billion KWh



France Electricity Generation, 2010, 450 Billion KWh



Summarize the information by selecting and reporting the main features and make comparisons where relevant. Write at least 150 words.

*Good Luck*

*Prof. Mohamed Abd El Azim  
Dr. Islam Ismael*