Benha University **Faculty of Engineering (at Shoubra)** **Electrical Engineering Department** **Pre-Master** **Subject: Scientific Writing - ENG 508**		**Fall Semester** **Final Exam** **Date:** Tuesday 14/05/2019 **Duration:** 3 hours **№ of Questions:** 6 in 2 pages **Total Marks:** 60
Attempt **all** the following questions:		

Part I:

Question 1: (10 Marks)

Give a brief discussion for writing abstract, literature review, conclusion and references in a scientific thesis?

Answer:

References

- cite all ideas, concepts, text, data that are not your own
- if you make a statement, back it up with your own data or a reference
- all references cited in the text must be listed
- cite single-author references by the surname of the author (followed by date of the publication in parenthesis)
- refer to website, text books, paper and conference
- it must be updated

Abstract

- A good abstract explains in one line why the paper is important. It then goes on to give a summary of your major results, preferably couched in numbers with error limits. The final sentences explain the major implications of your work. A good abstract is concise, readable, and quantitative. Length should be 1 paragraph, approx.150 words.

Conclusions

- The purpose of this chapter is to give summary of the whole thesis.
- from 3 -5 pages
- Do not repeat statement from the abstract, introduction or discussion.

Question 2: (10 Marks)

How to write a good paper for top international journals?

Steps to organizing your manuscript

- Prepare the figures and tables.
- Write the Methods.
- Write up the Results.
- Write the Discussion. Finalize the Results and Discussion before writing the introduction. ...
- Write a clear Conclusion.
- Write a compelling introduction.
- Write the Abstract.
- Compose a concise and descriptive Title.

Question 3: (10 Marks)

The literature review is very important in the scientific studies. Explain this statement and how we can use the literature review to decide the research title.

Literature review

- A critical summary of research on topic of interest generally prepared to put a research problem in content or to identify gaps and limitation of study and drawbacks to overcome this limitation or justify a new investigation.

Part II:

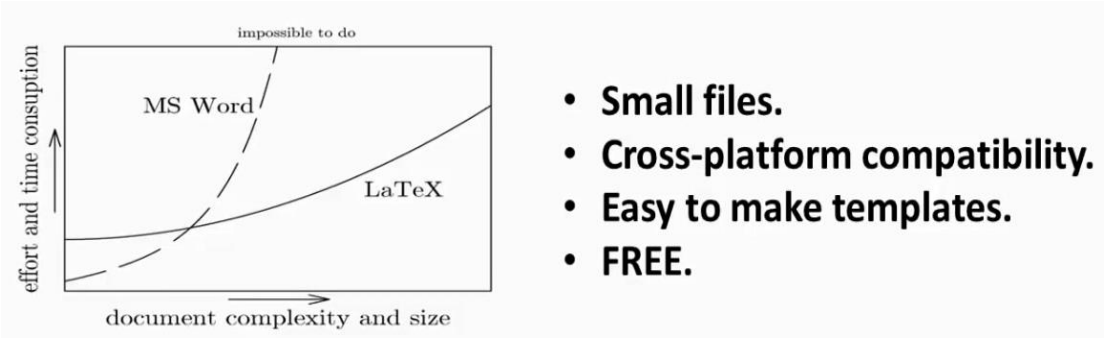
Question 4: (8 Marks)

a. (2 Marks) What is Latex?

Answer: Latex is a document reparation system for high-quality typesetting. It is often used for medium to large technical or scientific documents but it can be used for almost any form of publishing.
It encourages authors not to worry too much about of the appearance of their documents but to concentrate on getting the right content.

b. (2 Marks) What is the benefits of using Latex when compared to MS Word? You should support your answer by a figure.

Answer:



c. (2 Marks) What is Latex packages?

Answer: Packages are extensions of Latex that add functionality. It has the ability of adding figures or additional commands for mathematical symbols.
The Latex packages are two file types:
class files .cls extension, and style files with .sty extension
The command \use package tells Latex to load a package options.
Options are enclosed in square braces.

d. (2 Marks) Can you import data from MS word file into Latex?

Answer: 1 step: In MS Word: File -> Save As -> Tab Delimeted Text (data.txt)
2 step: In Latex: LOAD the file (data.txt) and FORMAT by using convenient package PgfplotsTable

Question 5: Complete the following sentences: (8 Marks)

1. The extension of the latex file is **.tex**.
2. You can use the option **[round]** when using the package natbib to make the reference in the text look like this (2016) instead of this [2015].
3. To add a new line, you use ****.
4. To make the text bold, you use the command **\textbf{text}**.
5. The title and the author of an article are written in a part after the document class and before the begin document called **preample**.
6. The tools needed to write a latex file are **compiler** and **editor**.
7. Latex supports two types of lists: **enumerate** produces numbered lists, while **itemize** is for bulleted lists.
8. You can **label** any of the sectioning commands so they can be referred to in other parts of the document.

Question 6: (14 Marks)

a. (6 Marks) Write Latex commands the will produce each of the following outputs:

i. (3 Marks)

- Computer Systems Engineering
  1.Pattern Recognition
  2.Machine Vision
- Communications and electronics
- Power Engineering

Answer:

```
\begin{ itemize }
 \item   Computer Systems Engineering
      \begin{enumerate}
      \item  Pattern Recognition
      \item  Machine Vision
      \end{itemize}
 \item   Communications and electronics
 \item   Power Engineering
 \end{ itemize }
```

ii. (3 Marks)

Table 1: Results

Ahmed	Mohamed	Hassan
80	45	70
50	25	60

Answer:

```
\begin{table}
\centering
\caption{Results}
\label{1}
\begin{tabular}{||l|c|l||}
\hline
Ahmed  & Mohamed & Hassan  \\
\hline
80 & 45  & 70      \\
\hline
50  & 25  & 60          \\
\hline
\end{tabular}
\end{table}
```

b. (8 Marks) Write a complete latex file that will produce the following outputs(paper):

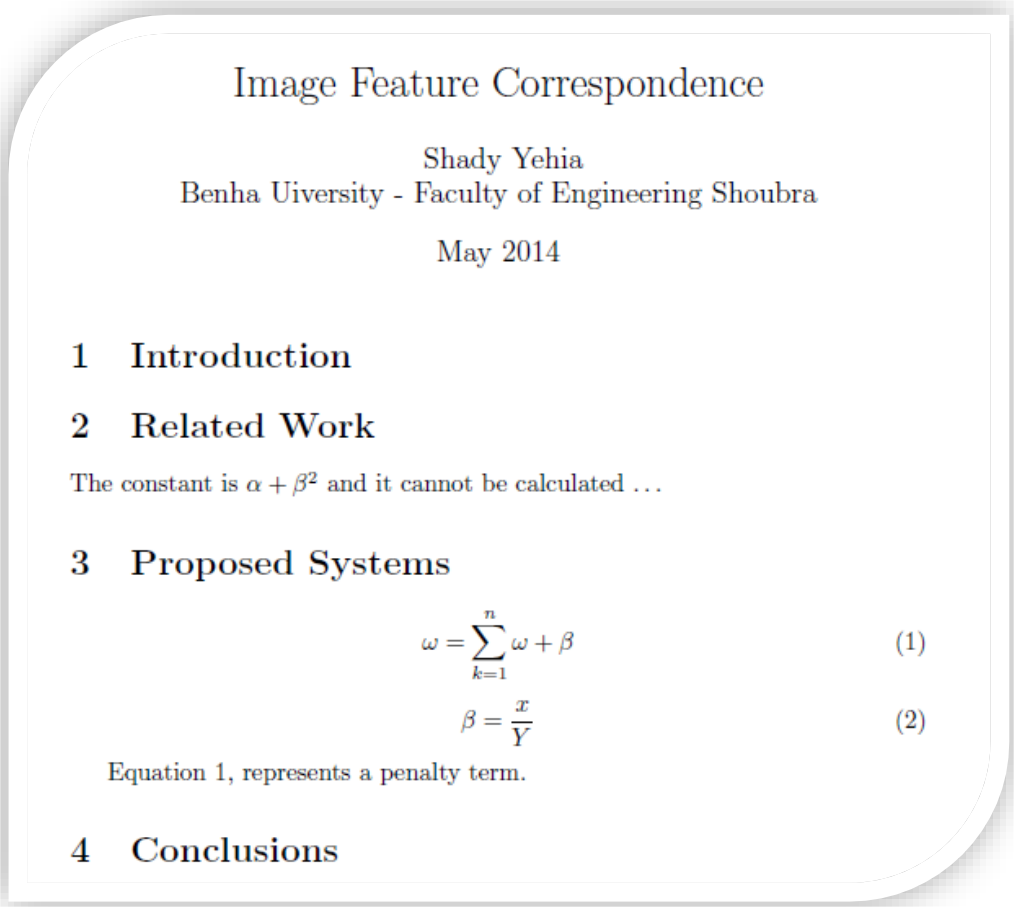


Image Feature Correspondence

Shady Yehia
Benha Uiversity - Faculty of Engineering Shoubra

May 2014

1 Introduction

2 Related Work

The constant is $\alpha + \beta^2$ and it cannot be calculated ...

3 Proposed Systems

$$\omega = \sum_{k=1}^{n} \omega + \beta \quad (1)$$

$$\beta = \frac{x}{Y} \quad (2)$$

Equation 1, represents a penalty term.

4 Conclusions

Answer:

```
\documentclass {article}

\title {Image Feature Correspondence}
\author{\ Shady Yehia\\
Benha Uiversity - Faculty of Engineering Shoubra}
\date{May 2014}


\begin{document}
\maketitle

\section {Introduction}
\section {Related Work}
The constant is $ \alpha + \beta^{2} $
and it cannot be calculated \ldots
\section {Proposed Systems}

\begin{equation}
\label {term}
\omega = \sum_{k=1} ^{n} \omega + \beta
\end{equation}
```

```
\begin{equation}
\label {frac}
\beta = \frac {x}  {Y}
\end{equation}

Equation \ref{term}, represents a penalty term.

\section {Conclusions}

\end{document}
```

Good Luck
Prof.Sayed Ward
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