| Course Title | **Technical Writing** | **Final Exam** | Course Code | HUM 162 |
|---|---|---|---|---|
| Date | 31 December 2024 | No. of Pages  (3) | Allowed time | 2 hrs |

**Remarks: (Answer all the following questions, using a clear good handwriting, please consider right spelling, grammar and punctuation rules)**

## Question (1) (10 Degrees):

**a) Write short notes about the following (5 Degrees):**

1. Parts of a scientific paper

Abstract
Introduction
 Materials and Methods
 Results
 Discussion
Conclusions
 Acknowledgments (optional)
 Literature Cited
Appendices (optional)

2. Parts and types of an Abstract.
Parts of abstracts are:
1. Introduction and Problem Statement
2. Work methodology or procedure
3. Results and conclusions
   Types of abstracts are:
   informative, descriptive, critical

**b) True or false? (5 Degrees):**

1. Table of contents is produced before the text of long report is written.                                    **X**
2. A list of tables and list of figures are written after the text of a long report although they come     √ first in organization before the text.
3. Abstract comes first in a long report; hence it is written first.                                          **X**
4. The detailed title is the first thing written when writing a research paper.                               **X**
5. The facts mentioned in a research paper need to be evidence based.                                         √

## Question (2) (12 Degrees):

a. What are the three basic divisions of a formal report?
   Prefatory parts, text, supplementary parts.
b. What are the prefatory parts of a formal report?
   table of contents, list of illustrations (figures and tables),
c. What are the contents of a long report's title page?
   The title of the report, name, title and address of the person who authorized the report, name, title and address of the person who prepared the report, and the date on which the report was submitted.
d. What are the aids to understanding the text of the report?
Visual aids (tables, figures, and graphics)

e. Mention examples of email greetings in professional emails and their counterpart in non-formal emails.

Best regards, Warm regards, Kind regards

## Question (3) (10 Degrees):

a. **(5 degrees)** Imagine that you're going to travel to the United States, Canada or another English-speaking country. When you get there, you'll stay with a host family. So, the organization has matched you with a family and you need to introduce yourselves before you meet in person. Please write an email to introduce yourself to the family and get information about them.

b. **(5 degrees) Read the following abstract then answer the questions after reading:**

### International Roughness Index prediction model for flexible pavements

"International Roughness Index (IRI) is a pavement performance indicator which reflects not only the pavement condition but also the ride quality and comfort level of road users. The aim of this paper is to develop an accurate IRI prediction model for flexible pavements using both multiple linear regression analysis and artificial neural networks (ANNs). The models were developed based on the Long-Term Pavement Performance Database. The data were collected for both original and overlaid flexible pavements from the general pavement studies (GPS-1, GPS-2 and GPS-6) and GPS-6) and the specific pavement studies (SPS-1, SPS-3 and SPS-5). The final database consisted of 506 sections with 2439 observations. The proposed models (regression and ANNs) predict IRI as a function of pavement age, initial IRI (IRI just after pavement construction), transverse cracks, alligator cracks and standard deviation of the rut depth. The regression model yielded a coefficient of determination ($R^2$) value of 0.57 while the ANNs model resulted in a much higher $R^2$ value of 0.75"

*Key Words: Pavement performance; IRI; LTPP; fatigue; rutting; regression; ANNs*

Please mark the following sentences with true or false based on the attached abstract:

1. International roughness Index (IRI) is only important to road agencies.                   ( X )

2. The developed model was based only on Artificial Neural Networks (ANNs)                 ( X )

3. Data was collected for rigid pavements from Long Term Pavement Performance   ( X )
   Database GPS and SPS sections.

4. The developed model variables included alligator cracks.                                       ( √ )

5. The authors used statistical analysis to verify their models                                     ( √ )

## Question (4) (8 Degrees):

**True or false?**

1. A job description is an internal document that states the essential job requirements, duties, and   √
   responsibilities.

2. The first step in writing a job description is to select the official internal job title.             √

3. Chronological format in writing a resume is better for fresh graduates.                    X
4. A resume usually starts with Contact Information                                            √
5. A professional summary is a brief statement that highlights applicant's key skills and     √
   experiences.
6. Functional format of a resume focuses on work history                                      X
7. Detailed work experience in a resume not necessarily need to include job title, company    X
   name, location, or dates of employment
8. Resumes need not to be proofread for typos or grammatical errors.                           X
9. Long report title should be informative but not too long                                   √
10. The title fly of a long report is a plain sheet with only the title of the report on it    √

*End of questions ... ............... With best of luck*

*Prof. Dr. Ragaa Abd El-Hakim*