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by (14 Font size)

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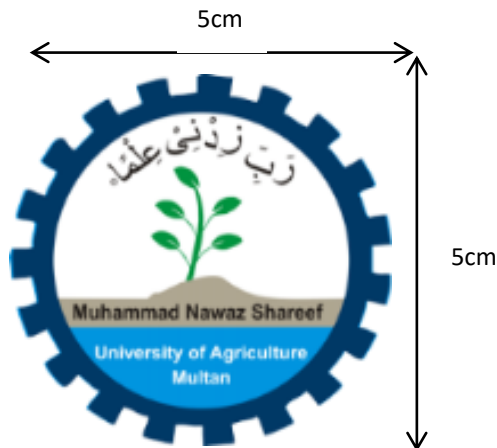
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**A thesis submitted in partial fulfillment of the requirement for the degree of (14 Font size)**

**Master of Science (Honors)/ Doctor of Philosophy**

**in**

**Discipline Name (14 Font size)**



**DEPARTMENT/ INSTITUTE NAME (16 Font size)**

**FACULTY NAME (16 Font size)**

**MNS UNIVERSITY OF AGRICULTURE**

**MULTAN (16 Font size)**

**(2023) (14 Font size)**

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## **Acknowledgments** (16 Font size)

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## **LIST OF ABBREVIATIONS** (16 Font size)

Abbreviations not described in the text  
All should be alphabetically arranged

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## **LIST OF TABLES** (16 Font size)

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## **ABSTRACT** (16 Font size)

The structure of the abstract should mirror the structure of the whole thesis and should represent a brief description all its major elements.

**Text** (250-600 words)

**Keywords:**

(12 Font size)

# **CHAPTER 1** (16 Font size)

## **GENERAL INTRODUCTION** (14 Font size)

General introduction should contain the brief background of the selected topic in a general way. It must identify the importance of the study, problems and their solutions, justification of the methodology proposed in the experiment(s). It should contain a review of the literature showing the work done previously in the area of the proposed research to plan further research effectively through identifying the research gaps. The information given in the review should be supported by references. It should give a theoretical base for the research and help you (the researcher) determine the nature of your research. (12 Font size)

### **1.1. Problem statement** (14 Font size)

It is the description of an issue currently existing which needs to be addressed as per research gaps identified through literature review. It provides the context for the research study and generates the questions that the research aims to answer. (12 Font size)

### **1.2. Hypothesis** (14 Font size)

### **1.3. Objectives** (14 Font size)

Objectives inform the reader clearly what the researcher plans to do in his/her work. The objective should start with an action verb and be sufficiently specific, measurable, achievable, and relevant and time-bound (SMART). (12 Font size)

## CHAPTER 2 (16 Font size)

### TITLE OF EXPERIMENT (Bold and Uppercase 16 Font size)

#### 2.1. Introduction (14 Font size)

It should contain background only related to experiment 1. It should not contain a review of the literature however; information presented should be supported by citing relevant reference(s) wherever necessary. (12 Font size)

#### 2.2. Materials and methods OR Methodology (14 Font size)

Name and place where the research works was conducted. Mention all material and methods (procedures, protocols, equations, formulae etc.) along with the appropriate study design. This section should also indicate all possible details related to experimental layout design with number of replications and detail of treatments, sample size for data recording, parameters, computational/software approaches. In the case of social sciences, for qualitative study or case study, all details related to data recording for all parameters with appropriate approaches. (12 Font size)

##### 2.2.1. Ethical considerations/ approval (If any) (12 Font size)

2.2.2. Sub-headings (Related to any method procedure or other items as per requirement) (12 Font size)

##### 2.2.3. Statistical analysis (12 Font size)

Mention appropriate statistical method and approach for analyzing data to meet the objective(s) of the experiment. (12 Font size)

#### 2.3. Results (14 Font size)

##### 2.3.1. Sub-headings (As per requirement) (12 Font size)

Describe the study results including figures, tables, and graphs to elaborate on the key findings. Write captions below the figures and tables. Mention the figure and table number in text.

**Table 2.1:** Give caption of the table (12 Font size)




**Figure 2.1:** Give caption of figure (12 Font size)

## **2.4. Discussion** (14 Font size)

It should be only related to the findings of experiment 1. Compare the results of the present objective with previous studies, explain and draw inference from results, and give logical explanations of the results supported by references.

(12 Font size)

## CHAPTER 3 (16 Font size)

### TITLE OF EXPERIMENT (Bold and Uppercase 16 Font size)

#### 3.1. Introduction (14 Font size)

It should contain background only related to experiment II. It should not contain a review of the literature however; information presented should be supported by citing relevant reference(s) wherever necessary. (12 Font size)

#### 3.2. Materials and methods OR Methodology (14 Font size)

Name and place where the research works was conducted. Mention all material and methods (procedures, protocols, equations, formulae etc.) along with the appropriate study design. This section should also indicate all possible details related to experimental layout design with number of replications and detail of treatments, sample size for data recording, parameters, computational/software approaches. In the case of social sciences, for qualitative study or case study, all details related to data recording for all parameters with appropriate approaches. (12 Font size)

##### 3.2.1. Ethical considerations/ approval (If any) (12 Font size)

3.2.2. Sub-headings (Related to any method procedure or other items as per requirement) (12 Font size)

##### 3.2.3. Statistical analysis (12 Font size)

Mention appropriate statistical method and approach for analyzing data to meet the objective(s) of the experiment. (12 Font size)

#### 3.3. Results (14 Font size)

##### 3.3.1. Sub-headings (As per requirement) (12 Font size)

Describe the study results including figures, tables, and graphs to elaborate on the key findings. Write captions below the figures and tables. Mention the figure and table number in text.

**Table 3.1:** Give caption of the table (12 Font size)




**Figure 3.1:** Give caption of figure (12 Font size)

### **3.4. Discussion** (14 Font size)

It should be only related to the findings of experiment 2. Compare the results of the present objective with previous studies, explain and draw inference from results, and give logical explanations of the results supported by references. (12 font size)

## **CHAPTER 4** (16 Font size)

### **GENERAL DISCUSSION** (14 Font size)

It should cover the findings of all experiments. Compare the results of the present objective with previous studies, explain and draw inference by integrating and correlating results of different experiments, and give logical explanations of the findings supported by references. (12 Font size)

## **CHAPTER 5** (16 Font size)

### **SUMMARY** (14 Font size)

Summary should contain brief information on justification of the study, methodology used, important results/ key findings and their explanation, recommendations for the scientific community and stakeholder. This section should include conclusion of the study focusing on the major outcomes, recommendations based on conclusion, study limitations with potential influences on findings and future thrust.

**References:** (12 Font size)

**Citation in text:**

Please ensure that every reference cited in the text is also present in the reference list (and vice versa). Include the latest references by using an endnote or any other reference manager. In the text, references should be placed in round brackets ( ), and placed before the punctuation with italics *et al*; for example (Dinh *et al.*, 2006), (Deep *et al.*, 2013; Kaldhusdal *et al.*, 2016), (Ali and Khan, 2020), (Ali, 2019). In text try to avoid sentence start with scientist name if necessary than add as Ali and Khan (2020) studied..... In the reference list, the reference style should be according to **Pakistan Journal of Agricultural Sciences** in hanging style alphabetically arranged as given below.

**For a journal article:**

Ul-Rahman, A., M. A. B. Shabbir, M. W. Aziz, S. Yaqub, A. Mehmood, M. A. Raza, and M. Z. Shabbir. 2020. A comparative phylogenomic analysis of SARS-CoV-2 strains reported from non-human mammalian species and environmental samples. *Mol. Biol. Rep.* 47(11): 9207-9217.

**For book:**

Gillard, J. 2022. Review on the book Yaroslav D. Sergeyev, Renato De Leone (Eds.) Numerical infinities and infinitesimals in optimization: Volume 43 in the series Emergence, complexity and computation, Springer, Cham, Name of city and country where published. ISBN: 978-3-030-93641-9 or <https://doi.org/10.1007/978-3-030-93642-6>.

**For book chapter:**

Mettam, G. R., and L.B. Adams. 2009. How to prepare an electronic version of your article. In: Jones, B. S., and R.Z. Smith (Eds.), *Introduction to the Electronic Age*. pp. 281–304. E-Publishing Inc., New York, USA.

**For proceedings:**

Bouchard, C. E., R. J. Shephard, and T. E. Stephens. 1994. Physical activity, fitness, and health: international proceedings and consensus statement. In *International Consensus Symposium on Physical Activity, Fitness, and Health, 2nd, May, 1992, Toronto, ON, Canada*. Human Kinetics Publishers.

**For dissertation/ thesis:**

Trent, J. W. 1975. Experimental acute renal failure. Dissertation, University of California. PhD or MSc Thesis, Department and University Name. (Online link/ URL if any)

**For software:**

Coon, E., M. Berndt, A. Jan, D. Svyatsky, and S. Molins. 2020. Advanced Terrestrial Simulator (ATS) v0.88 (Version 0.88). Zenodo. <https://doi.org/10.5281/zenodo.3727209>.

**For website:**

Cancer Research UK. Cancer statistics reports for the UK, <http://www.cancerresearchuk.org/aboutcancer/statistics/cancerstatsreport/>; 2003 [accessed 13 March 2003].

## **Appendix:**

**NOTE:** Add any table or figure for supplementary data from the thesis. (12 Font size)

### **Thesis preparation guidelines:**

- Margins of page should be 1 inch with odd page numbers will be 1.25 inches at left.
- Not less than 75 pages without an appendix
- Line spaces should be 1.5
- Font style should be Time New Roman
- Double-sided print
- All tables and figures should be according to instructions
- **Note:** In case of MS/ MSc(Hons) thesis, if study is comprised of only one experiment then follow the layout given below
  - Chapter-1: General Introduction
  - Chapter-2: Experiment Title
    - Short Introduction
    - Material and Methods OR Methodology
    - Results
  - Chapter-3: General Discussion
  - Chapter-4: Summary
  - References
  - Appendix (if any)

### **Thesis submission guidelines:**

- Semi-final thesis
  - Two copies of tape binding
  - Submission of E-30 form
  - Thesis observation form
  - Thesis submission fee-paid challan
  - Copy of scientific writing training certificate
  - Attested (supervisor) copy of logbook of laboratory where research was conducted
  - Copy of laboratory notebook with the signature of researchers and supervisor on pages
  - Check list
- Final thesis
  - Plagiarism/Similarity report notified by QEC
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  - Submission of all necessary certificates given in instruction manual
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- Submission of research articles as per HEC criteria (if published) (For Ph.D)