

A Guideline for the Preparation of Master's Thesis



**Faculty of Science and Technology
Pokhara University
Pokhara Metropolitan City-30
Pokhara**

September, 2019

1. Introduction

Research is an integral part of the Master degree being offered at Pokhara University. It comprises a sustained piece of individual work using appropriate research methods (and methodologies) culminating in the production of a bindable thesis (and other milestone assessments) under the guidance of a supervisor(s). This includes building the capacity of the graduates to design significant and original research problems. Students should also acquire the literary skills necessary to conduct and communicate the research to other scholars as well as the concerned stakeholders. Pokhara University considers the preparation of a thesis as an important avenue through which these skills are acquired. This guideline is a guide for the preparation of an acceptable thesis manuscript. Moreover, this guideline aims at maintaining uniformity in the thesis being submitted to Pokhara University. Hence, all the students are advised to **strictly follow the guidelines** right from the submission of proposal of thesis, thesis draft for pre-defense and final thesis submission. The research committee at Pokhara University or respective school/college has all the rights to reject the manuscript upon a failure of the students to follow the guidelines.

2. Order and content of the thesis proposal

2.1 Cover page/Title in preliminaries

2.1.1 Cover page or title page

It should contain the title of research proposal, student's name, PU registration number, name of school/college/university, and date/year of submission.

2.1.2 Table of contents (with titles and page numbers)

This page provides information to the readers about the composition of the whole proposal as well as location of different sections and sub-sections in the thesis. Hence, this section should include the chapter, section and sub-section headings with appropriate page number (See Appendix 10).

2.1.3 List of tables (with titles and page numbers)

This page provides information to the readers about the details of the tables provided in the thesis along with their location (page numbers). Numbering of tables should reflect the chapter the table belongs to (See Appendix 11). e.g. *Table 3.4 refers to fourth table of chapter 3.*

2.1.4 List of figures (with titles and page numbers)

This page provides information to the readers about the details of the figures provided in the thesis along with their location (page numbers). Numbering of figures should reflect the chapter the figure belongs to (See Appendix 12). e.g. *Fig. 3.4 refers to fourth figure of chapter 3.*

2.1.5 Abbreviations/Acronyms

This section provides the list of abbreviation and acronyms used in the thesis along with their details. It should be presented in alphabetical order (See Appendix 15).

2.1.6 Units and conversions

This section provides the list of units and conversions, if applicable, used in the thesis along with their details. It should be presented in alphabetical order. (Similar as Appendix 15)

2.1.7 Proposed supervisor

It should contain proposed supervisor for the research, his/her affiliation and a short biography.

2.2 INTRODUCTION

This chapter should discuss the background of the research issues being dealt, statement of the problem, research questions, and research objectives, significance/rationale of the study, and scope and limitation of the study. Introduction must revolve around the research issue to be dealt by the thesis.

2.2.1 Background

Brief background of the issues should be discussed under the background section. It should be done in the form of brief literature review of related literatures, which is essential to build statement of the problem, research question, and research objectives in the later part of INTRODUCTION chapter.

2.2.2 Statement of the problem

This section must indicate what the problem is, and why and how it is a problem. Similarly, necessity to conduct the research should be discussed. It should be supported by data or evidences. This section should be well connected with background section and as brief as possible.

2.2.3 Research questions

Based on the statement of the problem research question should be formulated. Research questions should clearly state what type of answers the research is looking for.

2.2.4 Research objectives

This section should clearly mention the overall and specific goal of the research. Usually objective is presented as general objective and specific objectives. The general objective of thesis research should be only one and should be in line with the title. To meet the general objective, several specific objectives could be set. Specific objectives should be in line with research questions and are more or less equal to numbers of research questions.

2.2.5 Significance/rationale of the study

The importance of the proposal research should be stated in this section, in terms of potential beneficiaries and the way they will be benefitted. The section should focus on justifying the topic of the proposed research.

2.2.6 Limitation and scope of the study

Researcher should write clearly the limitation and scope of the proposed research.

2.3 LITERATURE REVIEW

Literature review is basically a survey of published materials on the topic of the interest authored by accredited scholars and researchers. It is quite important to uncover what is already known in the body of knowledge prior to initiating any research (Hart, 1998). Hence, it is a crucial endeavor for any academic research in theoretical and conceptual progress (Shaw, 1995 and, Webster and Watson, 2002). Thus, it helps to situate your research in the context of what is already known about the topic and find the gap that the research will bridge. It is encouraged to refer **at least 10 articles** published in peer-reviewed journals during the literature review process.

2.4 METHODOLOGY

This chapter includes the discussion about the way the research will be conducted to meet the stated objectives. The methodology should be summarized in the form of block diagram/flowchart. Selected methodology should be discussed in details along with the justification of selecting the methodology. It should include research design (historical research, experimental research, field research, and survey research), research approaches (qualitative, quantitative), study area, study population, sample selection (sample selection methods), sample size, methods of data collection (Key Informant Interview, Focused Group Discussion, questionnaire survey, observation, modeling, measurement) measurement methods, specific computer programs to be used or developed and data analysis approaches and tools.

2.5 TENTATIVE TIME SCHEDULE

The research proposal should include the proposed time schedule of respective activities.

2.6 BUDGET (TENTATIVE)

The research proposal should include the tentative budget (optional) for the research. The budget should be allocated in respective activities.

2.7 REFERENCE

The arguments in the thesis should be supported by proper evidences. This needs to be done by referring to earlier publications such as patents, journals, books, reports, thesis and other materials. Hence, referencing gives credit to the authors or organizations for using their work in your thesis. It provides the reader with evidence of the breadth and depth of researchers reading and enables readers to locate the references easily.

It is strongly recommended to follow the IEEE referencing or Harvard Style of Referencing format for the thesis submitted to Pokhara University. The referencing should be consistent either IEEE or Harvard style throughout the thesis.

Note: The students are strongly advised to familiarize themselves with the concept of plagiarism and avoid plagiarism at any cost.

3. Order and content of the thesis

3.1 Pretext (Preliminary pages)–It should contain the following headings:

3.1.1 Cover page:

This page should give information about title of the thesis, name of author, name of the institute, and month and year of thesis completion. For the convenience to easily locate the thesis while staked, information on title, author and year of graduation must appear in the side of bound thesis. Information on font type, font size, font color, page margin and spacing between the lines is provided in the sample supplied as Appendix 1 and 2.

3.1.2 Title page:

Pagination should start from the title page, but should not appear in the page. All the information regarding this page is provided in Appendix 3.

3.1.3 Dedication (Optional):

This is an optional page. Dedication should be brief and centered from all the ends on the page. No heading is used in the dedication page and number of this page should be “ii”. Dedication is not listed in the “Table of contents”. (See Appendix 4).

3.1.4 Declaration:

This section of thesis declares that your study is based on original research works, and related works on the topic being used in the thesis is duly acknowledged through proper citation and referencing. In addition, this section is also meant for taking responsibility by the student for any error and authenticity of the data used in the thesis (See Appendix 5). In the case there is dedication, pagination of this page would be “iii” otherwise it should be “ii”.

3.1.5 Recommendation

This is the recommendation to be made by the supervisor. It mentions that you have prepared and submitted the thesis through the supervision of your supervisor (See Appendix 6). By signing this page, Pokhara University expects that your supervisor assures the quality of your thesis to be sufficient enough to meet the requirement set by the University.

3.1.6 Certificate

This page certifies that you have successfully completed the thesis work and eligible for acceptance. This page is to be signed by the external examiner, supervisor (if there is co-supervisor, signed by co-supervisor as well) and Head of Department/Director/Principal of faculty/School/College (See Appendix 7). This page should be printed in college/school letter head with college/school official stamp.

3.1.7 Acknowledgements

This section is to express gratitude to all the individuals or the institutions that helped you to successfully complete your research. Usually, supervisor and co-supervisor are acknowledged first followed by funding agencies, if any. Similarly, professors, classmates/ friends, staffs of the school/ college/ institute/ university, from whom you received guidance/suggestions/support, should also be acknowledged. In the case you have conducted field survey respondents should be acknowledged for their time consumed during the field survey as well as the information. You can also acknowledge your family members and relatives for their patience, support, dream whatsoever (See Appendix 8).

This is a matter of courtesy but don't overdo it.

3.1.8 Abbreviations/Acronyms

This section provides the list of abbreviation and acronyms used in the thesis along with their details. It should be presented in alphabetical order (See Appendix 15).

3.1.9 Units and conversions

This section provides the list of units and conversions, if applicable, used in the thesis along with their details. It should be presented in alphabetical order (Similar to Appendix 15).

3.1.10 Abstract

Abstract is compulsory. The heading **ABSTRACT**, in capital letters and bold font should be centered between the left and right margins, without punctuating or underlining. Four blank spaces should be maintained before starting the paragraph (See Appendix 9). Abstract should present a succinct account of the research. It should contain a statement of the research problem, methods, results, discussions, conclusions and recommendation, but in brief, limited within a page or two pages. Hence, it should be a concise reflection of the entire study so that it functions chiefly as a guide for students and scholars surveying research in their field. It should be written in simple English. Internal heading, citation(s), mathematical formula(s), diagrams/figure(s), table(s), and other illustrative material(s) must be avoided in abstract. The abstract should be concise within 300-350 words limit.

Keywords:

3-7 keywords based on the research should be kept in the page of abstract below the main text of the abstract.

3.1.11 Table of contents (with title and page number)

This page provides information to the readers about the composition of the whole thesis as well as location of different sections and sub-sections in the thesis. Hence, this section of the thesis should include the chapter, section and sub-section headings with appropriate page number (See Appendix 10). It should be placed next to the abstract sheet.

3.1.12 List of tables (with title and page number)

This page provides information to the readers about the details of the tables provided in the thesis along with their location (page numbers). Numbering of tables should reflect on which chapter the table belongs to (See Appendix 11). e.g. *Table 3.4 refers to fourth table of chapter 3.*

3.1.13 List of figures (with title and page number)

This page provides information to the readers about the details of the figures provided in the thesis along with their location (page numbers). Numbering of figures should reflect on which chapter the figure belongs to (See Appendix 12). e.g. *Fig. 3.4 refers to fourth figure of chapter 3.*

3.1.14 List of plates/pictures (with titles and page number)

This page provides information to the readers about the details of the plates/pictures provided in the thesis along with their location (page numbers). Numbering of plates/pictures should reflect on which chapter the plate/picture belongs to (See Appendix 13). e.g. *Plate 3.4 refers to fourth plate of chapter 3.*

3.1.15 List of appendices (with titles and page number)

This page provides information to the readers about the details of the appendices provided in the thesis along with their location (page numbers). Its numbering can be done in normal sequence (See Appendix 14).

- 4. Text: It is a main body of the thesis dealing particularly with Chapters starting from INTRODUCTION followed by LITERATURE REVIEW, METHODOLOGY, RESULTS AND DISCUSSIONS and CONCLUSION AND RECOMMENDATIONS. Heading of all the chapters should be uppercase (ALLCAPS).**

CHAPTER 1

INTRODUCTION

This chapter should discuss the background of the research issues being dealt, statement of the problem, research questions, research objectives, significance/rationale of the study, and scope and limitation of the study. Introduction must revolve around the central research issue.

1.1 Background

Brief background of the issues should be discussed under the background section. It should be done in the form of brief literature review of related literatures, which is essential to build statement of the problem, research question, and research objectives in the later part of INTRODUCTION chapter.

1.2 Statement of the problem

This section must indicate what the problem is, why and how it is a problem. Similarly, necessity to conduct the research should also be discussed. It should be supported by data or evidences. This section should be well connected with background section and as brief as possible.

1.3 Research questions

Based on the statement of the problem research question should be formulated. Research questions should clearly state what type of answers the research is looking for.

1.4 Research objectives

This section should clearly mention what you want to achieve from the research. Usually objective is presented as general objective and specific objectives. The general objective of research should be only one and should be in line with the title. To meet the general objective, several specific objectives could be set. Specific objectives should be in line with research questions and are more or less equal in numbers of research questions.

1.5 Significance/Rationale of the study

The importance of the proposal research should be stated in this section, in terms of potential beneficiaries & the way they will be benefitted. The section should focus on justifying the topic of the proposed research.

CHAPTER 2

LITERATURE REVIEW

Literature review is basically a survey of published materials on the topic of the interest authored by accredited scholars and researchers. It is quite important to uncover what is already known in the body of knowledge prior to initiating any research (Hart, 1998). Hence, it is a crucial endeavor for any academic research in theoretical and conceptual progress (Shaw, 1995 and, Webster and Watson, 2002). Thus, it helps to situate your research in the context of what is already known about the topic and find the gap that your research will bridge.

CHAPTER 3

METHODOLOGY

This chapter includes the discussion about the way you conducted your thesis research in order to meet the objectives. The methodology should be summarized in the form of block diagram /flowchart. Selected methodology should be discussed in details along with the justification of selecting the methodology. Each method used in the thesis should be directly and specifically linked with the research objectives. It should include research design (historical research, experimental research, field research, and survey research), research approaches (qualitative, quantitative), study area, study population, sample selection (sample selection methods), sample size, methods of data collection (Key Informant Interview, Focused Group Discussion, questionnaire survey, modeling, observation, measurement) and data analysis approach & tools.

CHAPTER 4

RESULTS AND DISCUSSION

This section should present the findings of the study in logical sequences in line with the specific objectives. Presentation of data and facts should be explained regarding plausibility and compared with data from similar studies. The causal factors behind the findings should be discussed in relation to other variables under consideration in the study based on Focused Group Discussion (FGD), Key Informant Interview (KII), questionnaire survey, modeling, observation, measurement or literature reviews.

CHAPTER 5

CONCLUSION AND RECOMMENDATIONS

Conclusion is an integration of various issues covered in the body of the thesis. Conclusion includes noting any implications resulting from the discussion and making policy recommendation as well as the need for further research. Hence, the conclusion should be a logical ending to what has been previously discussed. It must pull together all parts of the argument and refer the reader back to the focus you have outlined in your introduction and to the central topic. Never present any new information in this section and never make generic conclusion which are not supported by the data/information in the text of the thesis. Thus, conclusion and recommendation of the study must be limited within the scope of the research.

REFERENCE

The arguments in the thesis should be supported by proper evidences. This needs to be done by referring to earlier publications such as patents, journals, books, reports, thesis and other materials. Hence, referencing gives credit to the authors or organizations for using their work in your thesis. It provides the reader with evidence of the breadth and depth of researchers reading and enables readers to locate the references easily.

It is strongly recommended to follow the *IEEE referencing* or *Harvard Style of Referencing* format for the thesis submitted to Pokhara University. The referencing should be consistent either IEEE or Harvard style throughout the thesis.

Note: *The students are strongly advised to familiarize themselves with the concept of plagiarism and avoid plagiarism at any cost.*

IEEE referencing format

Text citation:

When making reference to an author's work in the text, the number is written inside big bracket. For instance,

In general, when writing for a professional publication, it is good practice to make reference to other relevant published work [1].

In the Reference:

All the works cited in the text should be listed numerically in increasing order.

Basic format for books:

J. K. Author, "Title of chapter in the book," in Title of His Published Book, xth ed. City of Publisher, (only U.S. State), Country: Abbrev. of Publisher, year, ch. x, sec. x, pp. xxx–xxx.

Examples:

- [1] G. O. Young, "Synthetic structure of industrial plastics," in *Plastics*, 2nd ed., vol. 3, J. Peters, Ed. New York, NY, USA: McGraw-Hill, 1964, pp. 15–64.
- [2] W.-K. Chen, *Linear Networks and Systems*. Belmont, CA, USA: Wadsworth, 1993, pp. 123–135.

Basic format for periodicals:

J. K. Author, "Name of paper," Abbrev. Title of Periodical, vol. x, no. x, pp. xxx–xxx, Abbrev. Month, year, DOI. 10.1109.XXX.123456.

Examples:

- [3] J. U. Duncombe, "Infrared navigation—Part I: An assessment of feasibility," *IEEE Trans. Electron Devices*, vol. ED-11, no. 1, pp. 34–39, Jan. 1959, 10.1109/TED.2016.2628402.
- [4] E. P. Wigner, "Theory of traveling-wave optical laser," *Phys. Rev.*, vol. 134, pp. A635–A646, Dec. 1965.
- [5] E. H. Miller, "A note on reflector arrays," *IEEE Trans. Antennas Propagat.*, to be published.

Basic format for reports:

J. K. Author, "Title of report," Abbrev. Name of Co., City of Co., Abbrev. State, Country, Rep. xxx, year.

Examples:

- [6] E. E. Reber, R. L. Michell, and C. J. Carter, "Oxygen absorption in the earth's atmosphere," Aerospace Corp., Los Angeles, CA, USA, Tech. Rep. TR-0200 (4230-46)-3, Nov. 1988.
- [7] J. H. Davis and J. R. Cogdell, "Calibration program for the 16-foot antenna," Elect. Eng. Res. Lab., Univ. Texas, Austin, TX, USA, Tech. Memo. NGL-006-69-3, Nov. 15, 1987.

Basic format for handbooks:

Name of Manual/Handbook, x ed., Abbrev. Name of Co., City of Co., Abbrev. State, Country, year, pp. xxx-xxx.

Examples:

- [8] Transmission Systems for Communications, 3rd ed., Western Electric Co., Winston-Salem, NC, USA, 1985, pp. 44–60.
- [9] Motorola Semiconductor Data Manual, Motorola Semiconductor Products Inc., Phoenix, AZ, USA, 1989.

Basic format for books (when available online):

J. K. Author, "Title of chapter in the book," in Title of Published Book, xth ed. City of Publisher, State, Country: Abbrev. of Publisher, year, ch. x, sec. x, pp. xxx-xxx. [Online]. Available: <http://www.web.com>

Examples:

- [10] G. O. Young, "Synthetic structure of industrial plastics," in *Plastics*, vol. 3, *Polymers of Hexadromicon*, J. Peters, Ed., 2nd ed. New York, NY, USA: McGraw-Hill, 1964, pp. 15-64. [Online]. Available: <http://www.bookref.com>.
- [11] *The Founders' Constitution*, Philip B. Kurland and Ralph Lerner, eds., Chicago, IL, USA: Univ. Chicago Press, 1987. [Online]. Available: <http://press-pubs.uchicago.edu/founders/>
- [12] *The Terahertz Wave eBook*. ZOmega Terahertz Corp., 2014. [Online]. Available: http://dl.z-thz.com/eBook/zomega_ebook_pdf_1206_sr.pdf. Accessed on: May 19, 2014.
- [13] Philip B. Kurland and Ralph Lerner, eds., *The Founders' Constitution*. Chicago, IL, USA: Univ. of Chicago Press, 1987, Accessed on: Feb. 28, 2010, [Online] Available: <http://press-pubs.uchicago.edu/founders/>

Basic format for journals (when available online):

J. K. Author, "Name of paper," Abbrev. Title of Periodical, vol. x, no. x, pp. xxx-xxx, Abbrev. Month, year. Accessed on: Month, Day, year, DOI: 10.1109.XXX.123456, [Online].

Examples:

- [14] J. S. Turner, "New directions in communications," *IEEE J. Sel. Areas Commun.*, vol. 13, no. 1, pp. 11-23, Jan. 1995.
- [15] W. P. Risk, G. S. Kino, and H. J. Shaw, "Fiber-optic frequency shifter using a surface acoustic wave incident at an oblique angle," *Opt. Lett.*, vol. 11, no. 2, pp. 115–117, Feb. 1986.

- [16] P. Kopyt et al., “Electric properties of graphene-based conductive layers from DC up to terahertz range,” IEEE THz Sci. Technol., to be published. DOI: 10.1109/TTHZ.2016.2544142.

Basic format for papers presented at conferences (when available online):

J.K. Author. (year, month). Title. presented at abbrev. conference title. [Type of Medium]. Available: site/path/file

Example:

- [17] PROCESS Corporation, Boston, MA, USA. Intranets: Internet technologies deployed behind the firewall for corporate productivity. Presented at INET96 Annual Meeting. [Online]. Available: <http://home.process.com/Intranets/wp2.htm>

Basic format for reports and handbooks (when available online):

J. K. Author. “Title of report,” Company. City, State, Country. Rep. no., (optional: vol./issue), Date. [Online] Available: site/path/file

Examples:

- [18] R. J. Hijmans and J. van Etten, “Raster: Geographic analysis and modeling with raster data,” R Package Version 2.0-12, Jan. 12, 2012. [Online]. Available: <http://CRAN.R-project.org/package=raster>
- [19] Teralyzer. Lytera UG, Kirchhain, Germany [Online]. Available: http://www.lytera.de/Terahertz_THz_Spectroscopy.php?id=home, Accessed on: Jun. 5, 2014

Basic format for computer programs and electronic documents (when available online):

Legislative body. Number of Congress, Session. (year, month day). Number of bill or resolution, Title. [Type of medium]. Available: site/path/file

NOTE: ISO recommends that capitalization follow the accepted practice for the language or script in which the information is given.

Example:

- [20] U.S. House. 102nd Congress, 1st Session. (1991, Jan. 11). H. Con. Res. 1, Sense of the Congress on Approval of Military Action. [Online]. Available: LEXIS Library: GENFED File: BILLS

Basic format for patents (when available online):

Name of the invention, by inventor’s name. (year, month day). Patent Number [Type of medium]. Available: site/path/file

Example:

- [21] Musical toothbrush with mirror, by L.M.R. Brooks. (1992, May 19). Patent D 326 189 [Online]. Available: NEXIS Library: LEXPAT File: DES

Basic format for conference proceedings (published):

J. K. Author, "Title of paper," in Abbreviated Name of Conf., City of Conf., Abbrev. State (if given), Country, year, pp. xxxxxx.

Example:

[22] D. B. Payne and J. R. Stern, "Wavelength-switched passively coupled single-mode optical network," in Proc. IOOC-ECOC, Boston, MA, USA, 1985, pp. 585–590.

Example for papers presented at conferences (unpublished):

[23] D. Ebehard and E. Voges, "Digital single sideband detection for interferometric sensors," presented at the 2nd Int. Conf. Optical Fiber Sensors, Stuttgart, Germany, Jan. 2-5, 1984.

Basic format for patents:

J. K. Author, "Title of patent," U.S. Patent x xxx xxx, Abbrev. Month, day, year.

Example:

[24] G. Brandli and M. Dick, "Alternating current fed power supply," U.S. Patent 4 084 217, Nov. 4, 1978.

Basic format for theses (M.S.) and dissertations (Ph.D.):

J. K. Author, "Title of thesis," M.S. thesis, Abbrev. Dept., Abbrev. Univ., City of Univ., Abbrev. State, year.

J. K. Author, "Title of dissertation," Ph.D. dissertation, Abbrev. Dept., Abbrev. Univ., City of Univ., Abbrev. State, year.

Examples:

[25] J. O. Williams, "Narrow-band analyzer," Ph.D. dissertation, Dept. Elect. Eng., Harvard Univ., Cambridge, MA, USA, 1993.

[26] N. Kawasaki, "Parametric study of thermal and chemical nonequilibrium nozzle flow," M.S. thesis, Dept. Electron. Eng., Osaka Univ., Osaka, Japan, 1993.

Basic format for the most common types of unpublished references:

J. K. Author, private communication, Abbrev. Month, year.

J. K. Author, "Title of paper," unpublished.

J. K. Author, "Title of paper," to be published.

Examples:

[27] A. Harrison, private communication, May 1995.

[28] B. Smith, "An approach to graphs of linear forms," unpublished.

[29] A. Brahms, "Representation error for real numbers in binary computer arithmetic," IEEE Computer Group Repository, Paper R-67-85.

Basic formats for standards:

a) Title of Standard, Standard number, date.

b) Title of Standard, Standard number, Corporate author, location, date.

Examples:

[30] IEEE Criteria for Class IE Electric Systems, IEEE Standard 308, 1969.

[31] Letter Symbols for Quantities, ANSI Standard Y10.5-1968.

Article number in reference examples:

[32] R. Fardel, M. Nagel, F. Nuesch, T. Lippert, and A. Wokaun, "Fabrication of organic light emitting diode pixels by laser-assisted forward transfer," *Appl. Phys. Lett.*, vol. 91, no. 6, Aug. 2007, Art. no. 061103.

[33] J. Zhang and N. Tansu, "Optical gain and laser characteristics of InGaN quantum wells on ternary InGaN substrates," *IEEE Photon. J.*, vol. 5, no. 2, Apr. 2013, Art. no. 2600111

Example when using et al.:

[34] S. Azodolmolky et al., Experimental demonstration of an impairment aware network planning and operation tool for transparent/translucent optical networks," *J. Lightw. Technol.*, vol. 29, no. 4, pp. 439–448, Sep. 2011.

Harvard Style of Referencing

<http://libweb.anglia.ac.uk/referencing/harvard.htm>.

Text citation:

When making reference to an author's work in the text, their name is followed by the year of publication of their work. For instance,

In general, when writing for a professional publication, it is good practice to make reference to other relevant published work. This view has been supported in the work of Cormack (1994).

Where, mentioning a particular part of the work, and making direct reference to this, a page reference should be included. For instance,

Cormack (1994, pp.32-33) states that "when ... works".

In the case of two joint authors, the surnames of both shall be written. Here, be careful about using ampersand "&". For instance,...works (Poudel & Shrestha, 2013). Or Poudel and Shrestha (2013) states that "when... works".

In the case of three or more authors, only the first author should be used followed by 'et al.' meaning 'and others'. For instance,

Joshi, et al. (2012) found that the majority... or Recent research has found that the majority of... (Joshi, et al., 2012).In the case of two or more works are cited, They are all cited as follows;

Jones (1946) and Smith (1948) have both shown... . or Further research in the late forties (Jones, 1946; Smith, 1948; Just & Pope 1978) lead to major...In the case of works of the same author in same year. They should be distinguished by alphabet supplemented in the year of publication. For instance Jones (1948a) and Jones (1948b) have both shown... . or Further research in the late forties (Jones, 1948a; Jones, 1948b; Just & Pope 1978) lead to the... .

In the Reference:

All the works cited in the text should be listed alphabetically by author or authorship, regardless of the format (whether books, website, or journal articles etc.). In the case of several works from one author or source they should be listed together but in date order with the earliest work listed first. The list should be in the following form;

Journal articles:

Author, Initials., Year. Title of article. *Full Title of Journal* [in italic], Volume number (Issue/Part number), Page numbers.

Example:

Kunwar, S., 2019. Enabling and limiting factors in eXtreme programming (X) with evaluation framework. *SCITECH Nepal*, 14 (1), pp.50-62.

Acharya, S., and Tewari, A., 2019. Spreadsheet implementation for optimization of power flow network problem: a case study of Kathmandu Valley. *SCITECH Nepal*, 14 (1), pp.44-49.

Hamill, C., 1999. Academic essay writing in the first person: a guide for undergraduates. *Nursing Standard*, [Online] 13 (44), pp. 38-40. Available at:<http://libweb.anglia.ac.uk/ejournals/333> Accessed 12 June 2005].

Books:

Use the title page, not the book cover, for the reference details. The required elements for a book reference are:

Author, Initials., Year. Title of book. Edition. Place of publication: Publisher.

Example:

Redman, P., 2006. Good essay writing: a social sciences guide. 3rd ed. London: Open University in association with Sage. [Book with single author]

Barker, R., Kirk, J., and Munday, R. J., 1988. Narrative analysis. 3rd ed. Bloomington: Indiana University Press. [Book with three authors]

Grace, B. et al., 1988. A history of the world. Princeton, NJ: Princeton University Press. [Book with four or more authors]

Allouche, J. ed., 2006. Corporate social responsibility, Volume 1: concepts, accountability and reporting. Basingstoke: Palgrave Macmillan. [Edited book]

Samson, C., 1970. Problems of information studies in history. In: S. Stone, ed. 1980. Humanities information research. Sheffield: CRUS, pp.44-68. [Chapter of edited book]

Theses and dissertations:

Author, Initials., Year. *Title of dissertation* [in italic]. Level. Official name of University.

Example:

Gurung, M. B., 2013. *Analysis of labor based environment friendly (LEP) approach in the construction of rural road in Nepal*. M.Sc. Nepal Engineering College-Center for Postgraduate Studies (nec-CPS), Pokhara University.

Dhakal, B. K., 2012. *Assessment of governance practices in buffer zone management program of Sagarmatha National Park, Nepal*. M.Sc. nec-CPS [If already provided the details in earlier reference you can use abbreviation], Pokhara University.

Sharma, S., 2013. *Analysis of the provisions under the Gandak treaty and the associated local movement*. M.Sc. nec-CPS, Pokhara University.

Corporate author:

Organization., Year. *Full title of report* [in italic]. Place of publication: Publisher.

Example:

CBS. 2012. *National population and housing census 2011*. Kathmandu, Nepal: Central Bureau of Statistics (CBS).

UNDP. 2012. *UNDP annual report 2011*. Kathmandu, Nepal: United Nations Development Programme (UNDP).

CBS. 2012. *National population and housing census 2011*. [Online] Kathmandu, Nepal: Central Bureau of Statistics (CBS): Available at: <http://cbs.gov.np/wp-content/uploads/2012/11/National%20Report.pdf> [Assessed on July 2, 2013].

Conference paper:

Author, Initials., Year. Full title of conference paper. In: followed by the editor or name of organization, *Full title of the conference* [in italic]. Location, Date. Place of publication: Publisher.

Example:

Brown, J., 2005. Evaluating surveys of transparent governance. In: UNDESA (United Nations Department of Economic and Social Affairs), *6th Global forum on reinventing government: towards participatory and transparent governance*. Seoul, Republic of Korea 24-27 May 2005. New York: United Nations.

Newspaper articles (online):

Author or corporate author, Year. Title of document or page. *Name of newspaper* [in italic], [type of medium] additional date information. Available at: <url> [Accessed date].

Chittenden, M., Rogers, L. and Smith, D., 2003. Focus: 'Targetitis ails NHS'. *Times Online*, [online] 1 June. Available at:

<http://www.timesonline.co.uk/tol/news/uk/scotland/article1138006.ece>> [Accessed 17 March 2005].

Coney, J., 2009. Is this the start of a new home loan war HSBC vows to lend £1billion to homebuyers with 10% deposits. *Daily Mail*, [online] (Last updated 9.47 AM on 09th April 2009). Available at: <<http://www.dailymail.co.uk/news/article-1168461/Is-start-new-home-loan-war-HSBC-vows-lend-1billion-homebuyers-10-deposits.html>> [Accessed on 20 April 2009].

Appendix:

Appendix is additional information apart from the main content that is attached to the end of the thesis. It is basically supplementary in nature and is not stand alone. The main purpose of an appendix is to further explain and clarify the matter, which otherwise cannot be placed as a main content. This provides greater details and visual examples for better understanding of the main content in the form of text, data-sheet, graph, coding, picture, etc.

1. Formatting and requirements (except cover page, and title page)

Paper specifications:

Color: White

Size: 21 cm x 29.7 cm (A4)

Length of thesis: The length of the main body of thesis is expected in between 15,000 to 30,000 words. It is necessary to consult with the thesis supervisor for the comprehensiveness of text, its flow and logics. Always incorporate only the important contexts, do not include the unreasonable and unnecessary text.

Calculation and measurement unit: SI unit

Equation: Equation should be typed using equation editor. It should be cited in the text as Eq. (n), where n represents specific equation number. e.g. Eq. (1), Eq. (2).

Figure: Figure should be cited in the text as Fig. (n), where n represents specific figure number. e.g. Fig. 1.1, Fig. 2.1. Figure caption should be provided below the figure and it should be left-aligned; pictures are considered as figures. The figures/tables from other sources should be reproduced and source mentioned along with caption inside bracket.

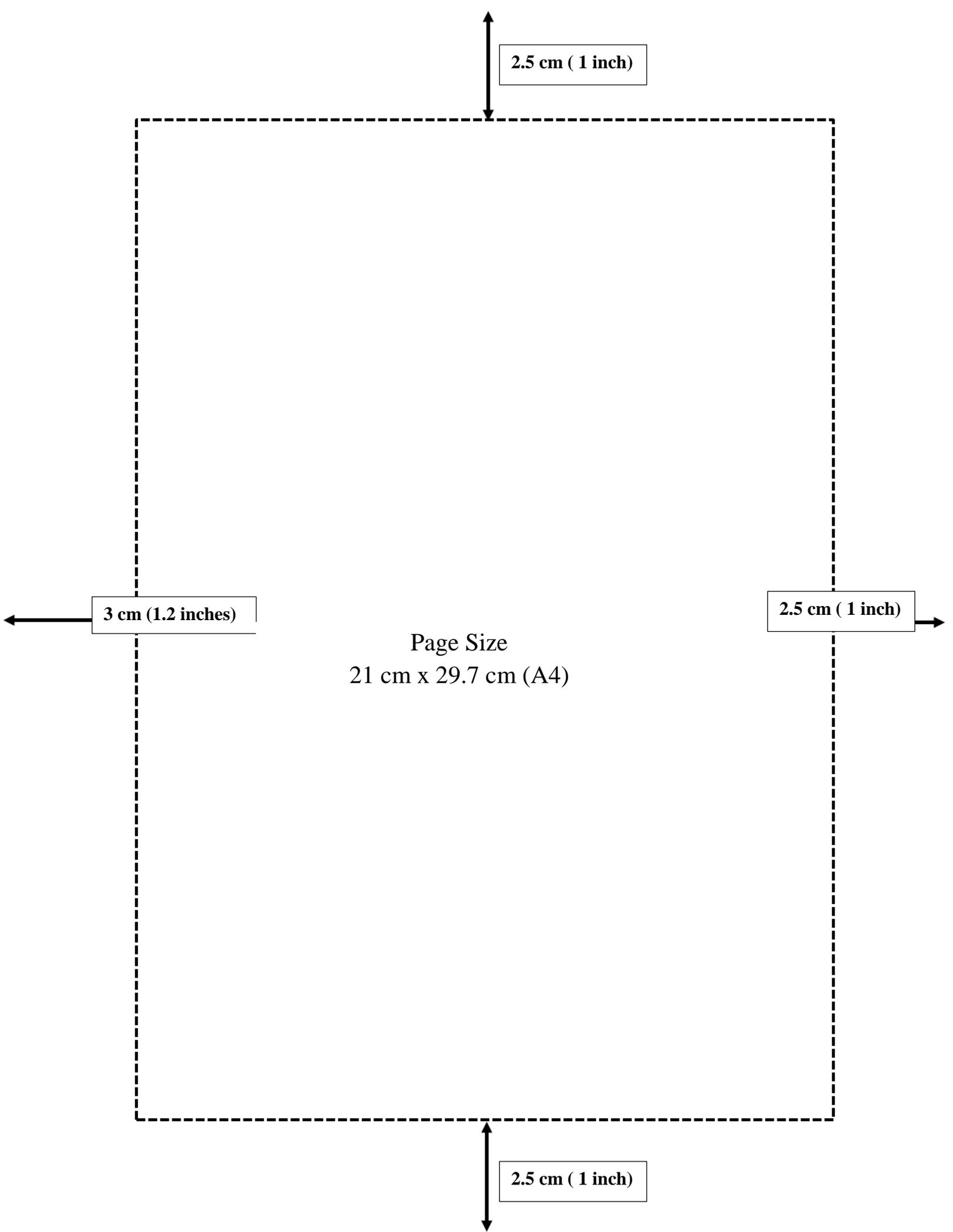
Table: Table should be cited in the text as Table n , where n represents specific table number. e.g. Table 1.1, Table 2.2. Table caption should be provided above the table and it should be left-aligned.

Language: American or British English (*Consistency should be maintained*). Any non- English word should be in *Italic*.

Main-text:

- | | | |
|----|-------------------------------|--|
| a. | Left margin: | 3 cm (1.2 inches) |
| b. | Right margin: | 2.5 cm (1 inch) |
| c. | Top margin: | 2.5 cm (1 inch) |
| d. | Bottom margin: | 2.5 cm (1 inch) |
| e. | Line spacing: | 1.5 |
| f. | Side: | Front (Single side) |
| g. | Font size: | 12 pts (can be adjusted in tables and figures) |
| h. | Font type: | Times New Roman (even in tables and figures) |
| i. | Font style: | Regular |
| j. | Font color: | Black |
| k. | Breaking a word in two lines: | Not allowed |
| l. | Corrections with fluid: | Not allowed |
| m. | Overwriting: | Not allowed |
| n. | Typing machine: | Computer |
| o. | Printing quality: | Laser |

Make the font bold only when necessary as prescribed in the format.



Appendix 1: Sample of front hard cover

Thesis for the Degree of Master of Science in ----- Engineering (16 pt)

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Paragraph spacing after
10 pts

Line spacing 1.5 lines

Title of thesis

(Thesis Title: 20pt. bold)

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Paragraph spacing after
10 pts

Line spacing 1.5 lines

Logo size: 1.6 *1.6 inch



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Paragraph spacing after
10 pts

Line spacing 1.5 lines

Full Name of Student, (16 pt. bold)
(PU registration number)

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Paragraph spacing after
10 pts

Line spacing 1.5 lines

School of Engineering

Faculty of Science and Technology
Pokhara University, Nepal (16 pt. bold)

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Paragraph spacing after
10 pts

Line spacing 1.5 lines

March, 2019 (16 pt. bold)

1 blank line, 14 pts

Paragraph spacing after
10 pts

Line spacing 1.5 lines

Appendix 2: Side print of hard cover print

Title of thesis

Full Name of Student

Year of completion

14 pts
Times New Roman

Appendix 3: Thesis title page

Thesis for the Degree of Master of Science in ----- Engineering (16 pt)

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Paragraph spacing after
10 pts
Line spacing 1.5 lines

Title of thesis

(Thesis Title: 20pt. bold)

3 blank line, 14 pts
Paragraph spacing after
10 pts
Line spacing 1.5 lines

Supervised by Prof. -----, Ph.D. (16 pt. bold)

A thesis submitted in partial fulfilment of the requirements for the
degree of Master of Science in Engineering (16 pts, Normal)

16 pts, Normal
Paragraph spacing after
10 pts
Line spacing 1.5 lines

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Paragraph spacing after
10 pts
Line spacing 1.5 lines

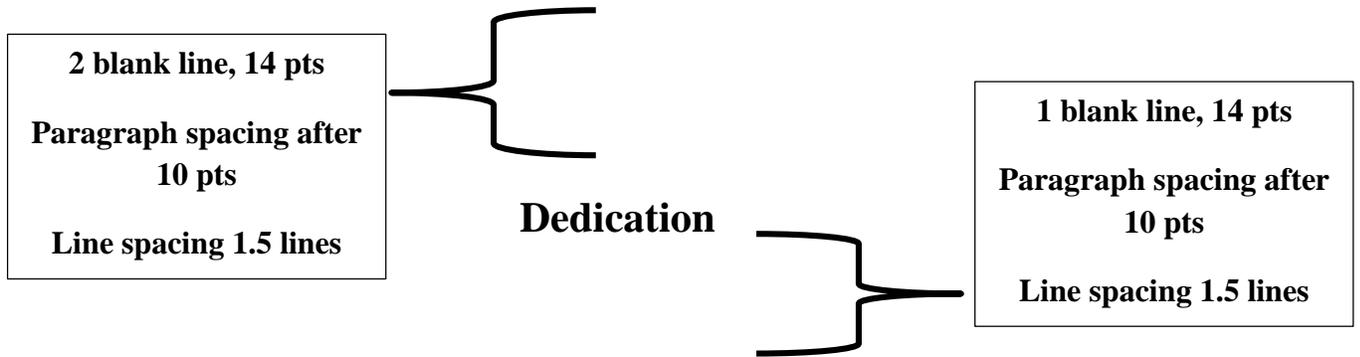
Full Name of Student, (16 pt. bold)
(PU registration number)

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Paragraph spacing after
10 pts
Line spacing 1.5 lines

School of Engineering
Faculty of Science and Technology
Pokhara University, Nepal (16 pt. bold)

March, 2019 (16 pt. bold)

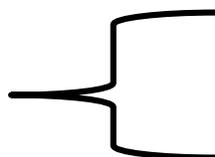
Appendix 4: Dedication page



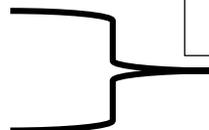
I would like to dedicate this thesis to... Four blank spaces should be maintained before starting the paragraph. (12 pts, Times New Roman, Normal, Justify, Line spacing 1.5)
Limited to one page only

Appendix 5: Declaration Page

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10 pts**
Line spacing 1.5 lines



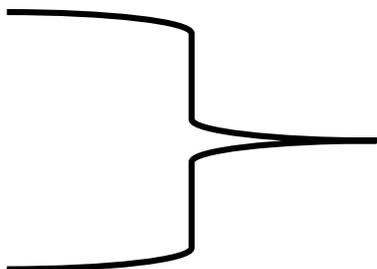
Declaration



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**Paragraph spacing after
10 pts**
Line spacing 1.5 lines

I hereby declare that this study entitled [**Put title of the thesis here in bold...**] is based on my original research work. Related works on the topic by other researchers have been duly acknowledged. I owe all the liabilities relating to the accuracy and authenticity of the data and any other information included hereunder. (12 pts, Times New Roman, Normal, Justify, Line spacing 1.5)

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**Paragraph spacing after
10 pts**
Line spacing 1.5 lines

Signature

Name of the Student:

P.U. Registration Number:

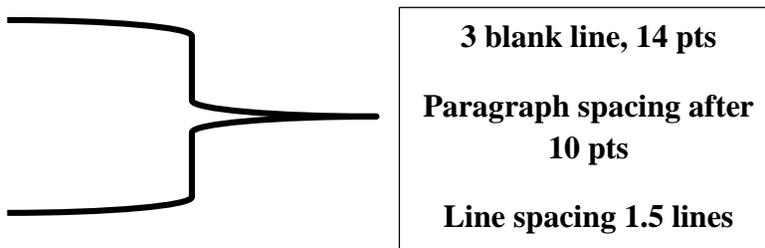
Date:

Appendix 6: Recommendation Page



This is to certify that this thesis entitled [**Put the title of the thesis here in bold...**] prepared and submitted by [**Put name of the student here in bold**], in partial fulfillment of the requirements of the degree of Master of Science (M.Sc.) in [Put the major] awarded by Pokhara University, has been completed under my/our supervision. I/we recommend the same for acceptance by Pokhara University. (12 pts, Times New Roman, Normal, Justify, Line spacing 1.5)

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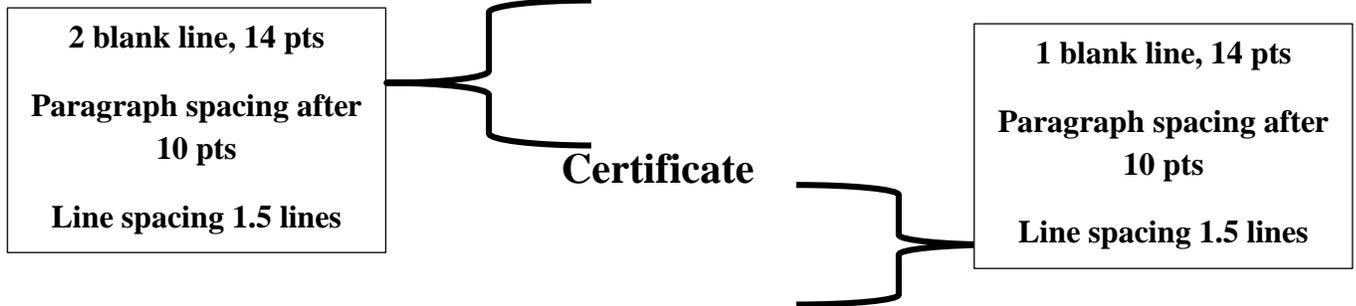
Signature

Name of the Supervisor:

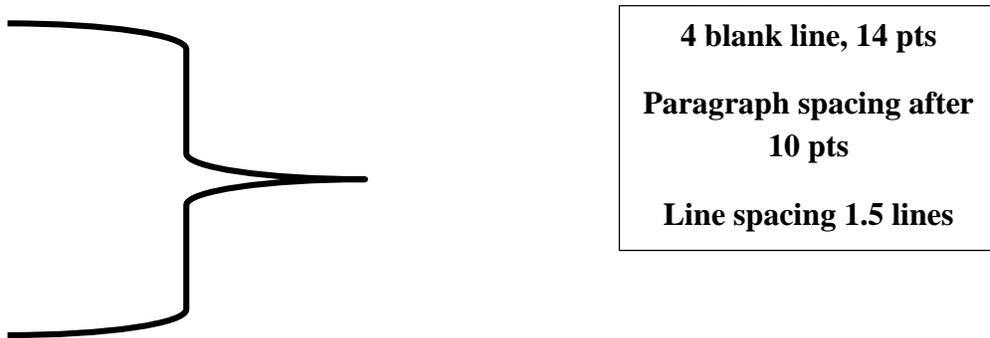
Organization:

Date:

Appendix 7: Certificate Page

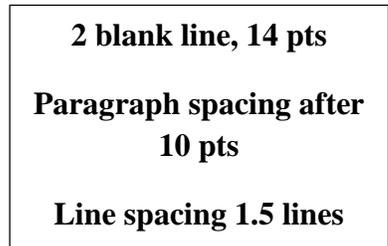
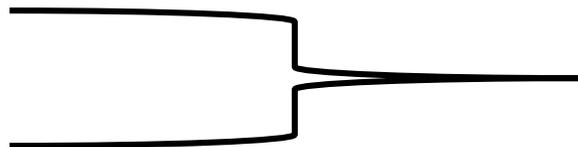


This thesis entitled [**Put the title of the thesis here in bold...**] prepared and submitted by [**Put name of the student here in bold**] has been examined by us and is accepted for the award of the degree of Master of Science (M.Sc.) in [Put name of the program] by Pokhara University.



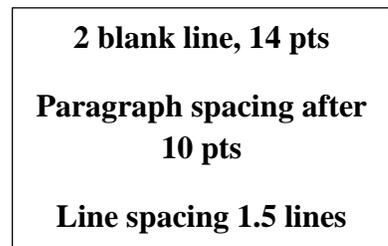
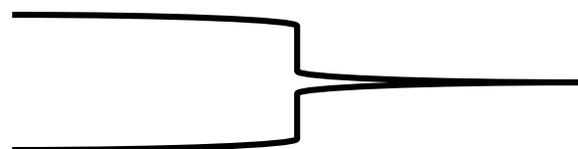
[Name of the external examiner in Bold] [Signature] [Date signed]

External examiner



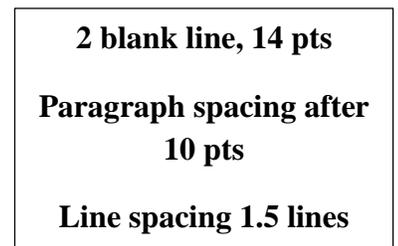
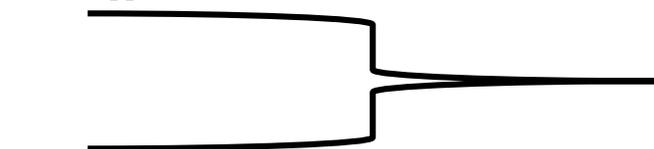
[Name of the thesis supervisor] [Signature] [Date signed]

Supervisor



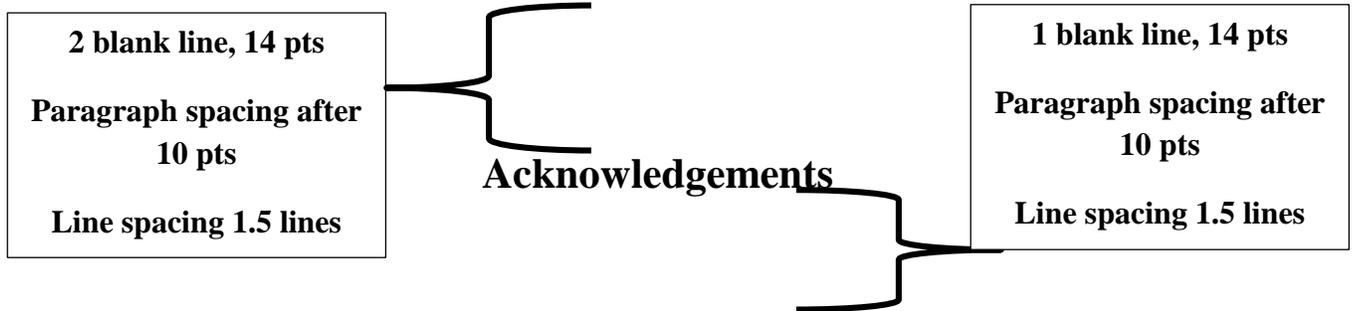
[Name of the thesis co-supervisor] [Signature] [Date signed]

Co-supervisor (If applicable)



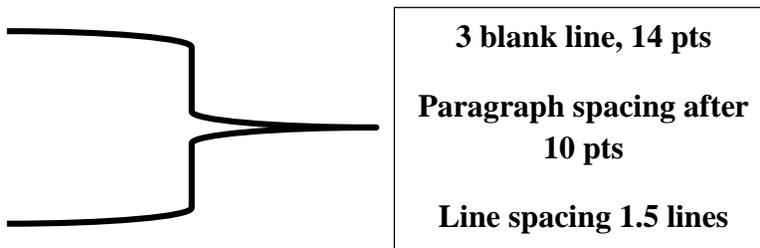
[Name of Head of Department or Principal] [Signature] [Date signed]

Appendix 8: Acknowledgements Page



Show your big heart to thank and acknowledge all the personnel and institutions who have provided their valuable time and input to make your research work a reality. You must acknowledge the institution/personnel for the financial assistance received for the research study (if any). Try to include all those who have been engaged in your directly or indirectly. Make it within a page. (12 pts, Times New Roman, Normal, Justify, Line spacing 1.5)

Limited to one page only



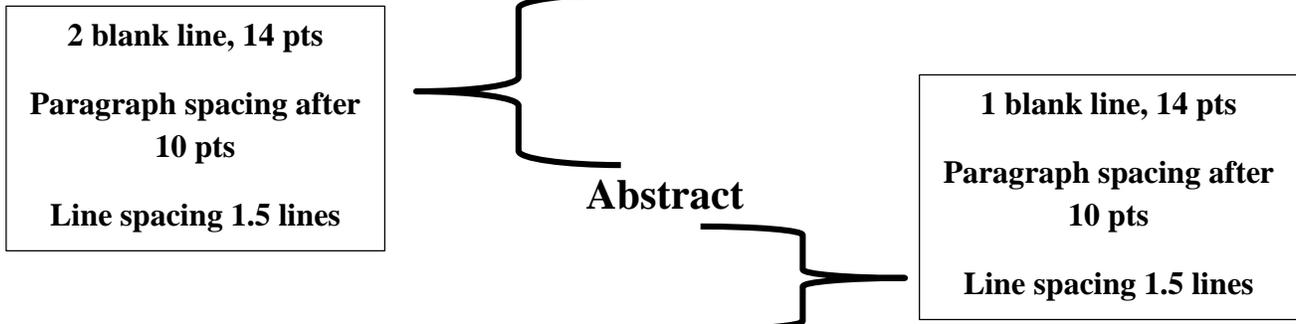
Signature

Name of the Student:

P.U. Registration Number:

Date:

Appendix 9: Abstract Page



Abstract is compulsory. The heading **ABSTRACT**, in capital letters and bold should be centered between the left and right margins, without punctuating or underlining. Four blank spaces should be maintained before starting the paragraph. (12 pts, Times New Roman, Normal, Justify, Line spacing 1.5)

Limited to one page only

1 blank line space between the paragraphs.

Keywords: 3-7 keywords based on the research should be kept in the page of abstract below the main text of the abstract leaving one blank line.

Appendix 10: Table of Content Page

Table of Content

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Line spacing 1 lines

Title (Times New Roman, 12 Pts, Normal Bold)

Page

Declaration		i
Recommendation		ii
Certificate		iii
Acknowledgements		iv
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Table of contents		vi
List of tables		vii
List of figures		ix
List of plates/pictures		x
Abbreviations/Acronyms		xi
Units and conversions		xii

12 pts

Normal

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CHAPTER 1 (Times New Roman, 12 Pts, Normal Bold)

INTRODUCTION

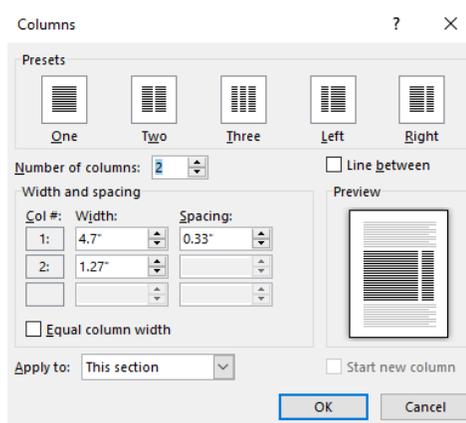
1.1. Background		1
1.1.1. Sub-section		2
1.1.2. Sub-section		3
1.2. Statement of problem		4
1.3. Research questions		5
1.4. Research objectives		6
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Uppercase

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RESULTS AND DISCUSSION	
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CONCLUSION AND RECOMMENDATION	
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Appendix 11: List of Table Page

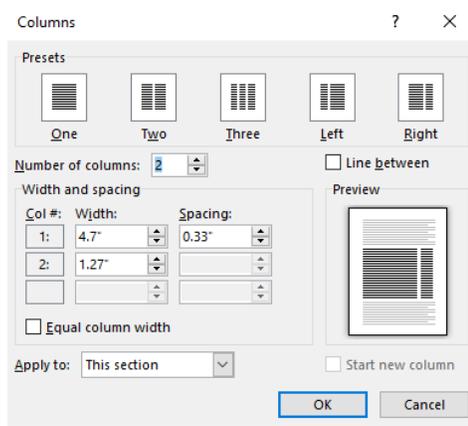
List of table

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	Title (Times New Roman, 12 Pts, Normal Bold)	Left-align, 12 pts Normal, line spacing 1.5	Page
Table 1.1	Population growth rate of Nepal		5
Table 2.1	Sales of cement in Nepal from 1978-2013		10
Table 4.1	Distribution of sample by socioeconomic variables		15
Table 4.2	Possession of house by house type		20
Table 4.3	Relation of income with possession of different types of house		21



Here, table number reflects distribution of tables among the chapters. For instance, Table 1.1 means table located in chapter 1. Similarly, Table 2.1 is table located in chapter 2 and Table 4.1, 4.2, and 4.3 are the tables located in Chapter 4. Table 4.1 is the first table of Chapter 4, and consequently 4.3 is the third table in Chapter 4. Similar, number applies for List of figures, and List of plates/pictures.

Appendix 12: List of Figure Page

List of figures

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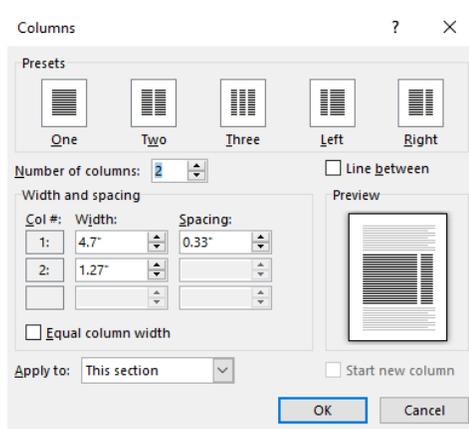
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		Page
Fig. 1.1	Population growth rate of Nepal	15
Fig. 2.1	Sales of cement in Nepal from 1978-2013	20
Fig. 4.1	Distribution of sample by socioeconomic variables	25
Fig. 4.2	Possession of house by house type	30
Fig. 4.3	Relation of income with possession of different types of house	31



Here, figure number reflects distribution of figures among the chapters. For instance, Fig. 1.1 means figure located in chapter 1. Similarly, Fig. 2.1 is figure located in chapter 2 and Fig. 4.1, 4.2, and 4.3 are the figures located in Chapter 4. Fig. 4.1 is the first figure of Chapter 4, and consequently 4.3 is the third figure in Chapter 4. Similar, number applies for List of plates/pictures.

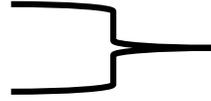
Appendix 13: List of Plates/Pictures Page

List of plates/pictures

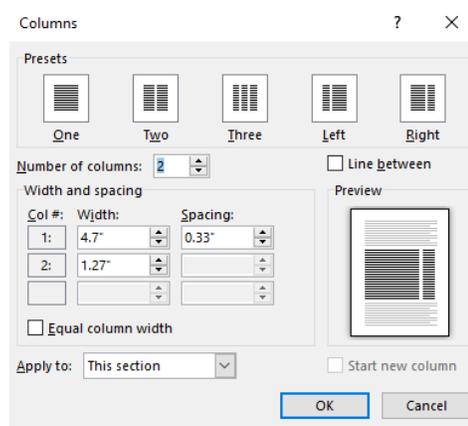
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	Title (Times New Roman, 12 Pts, Normal Bold)	Left-align, 12 pts Normal, line spacing 1.5	Page
Plate 1.1	Population growth rate of Nepal		15
Plate 2.1	Sales of cement in Nepal from 1978-2013		16
Plate 4.1	Distribution of sample by socioeconomic variables		20
Plate 4.2	Possession of house by house type		26
Plate 4.3	Relation of income with possession of different types of house		50



Here, plate number reflects distribution of plates among the chapters. For instance, Table 1.1 means plate located in chapter 1. Similarly, Plate 2.1 is plate located in chapter 2 and Plate 4.1, 4.2, and 4.3 are the plates located in Chapter 4. Plate 4.1 is the first plate of Chapter 4, and consequently 4.3 is the third plate in Chapter 4.

Appendix 14: List of Appendix Page

List of appendix

(Times New Roman, 14 pts, Normal Bold)

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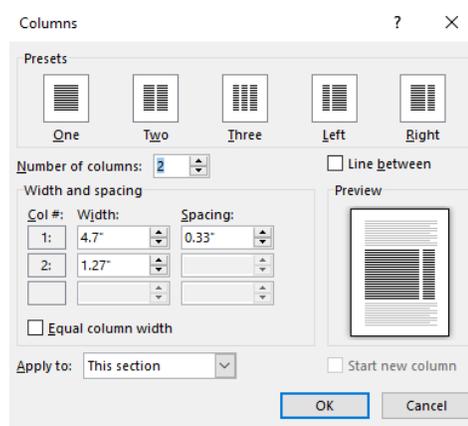
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Line spacing 1 lines

Title (Times New Roman, 12 Pts, Normal Bold)

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Page

Appendix 1.	Population growth rate of Nepal	10
Appendix 2.	Sales of cement in Nepal from 1978-2013	18
Appendix 3.	Distribution of sample by socioeconomic variables	22
Appendix 4.	Possession of house by house type	28
Appendix 5.	Relation of income with possession of different types of house	51



Appendix 15: List of Abbreviation/Acronyms Page

List of abbreviation/acronyms (Times New Roman, 14 pts, Normal Bold)

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Line spacing 1 lines

CO ₂	Carbon dioxide
CPS	Center for Postgraduate Studies
Ha.	Hectare
m ³	Meter cube (Cubic meter)
NEC	Nepal Engineering College
PU	Pokhara University
Sq.ft	Square feet
UNDP	United Nations Development Programme

Left-align,
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spacing 1.5

Space between Abbreviation/Acronyms and its details should be fixed as 2.5 cm (1 inch) by using Tab key (don't use colon or semicolon marks in between abbreviations/acronyms and its details). The list of abbreviation/acronyms should be organized in alphabetical order

Appendix 16: Table format Page

Table 1.1. Electrical properties of recyclic growth epi-layer with added Ga solution and GaAs source.

Sample	Source (repetitions)	$\mu_{RT}^{a)}$ ($\text{cm}^2\text{V}^{-1}\cdot\text{s}^{-1}$)	$\mu_{77\text{K}}^{b)}$ ($\text{cm}^2\text{V}^{-1}\cdot\text{s}^{-1}$)	$n_{RT}^{a)}$ (cm^{-3})	$n_{77\text{K}}^{b)}$ (cm^{-3})
S1	A(1)	5600	4.01×10^4	3.90×10^{14}	4.99×10^{14}
S2	A(2)	4310	8.48×10^4	4.29×10^{13}	1.75×10^{14}
S3 ^{c)}	A(3)	5230	9.19×10^4	1.14×10^{13}	1.41×10^{14}
S4 ^{c)}	A(4)	5830	1.12×10^5	3.81×10^{13}	9.68×10^{13}
S5 ^{c)}	A(5)	7140	1.55×10^5	3.73×10^{12}	7.35×10^{13}

^{a)} Measured in dark.

^{b)} Measured under light illumination.

^{c)} These samples were used for the photoluminescence measurements.

Appendix 17: Figure format Page

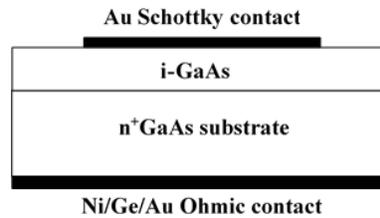


Fig. 1.1 Cross section of a Schottky diode used for capacitance-voltage measurement.

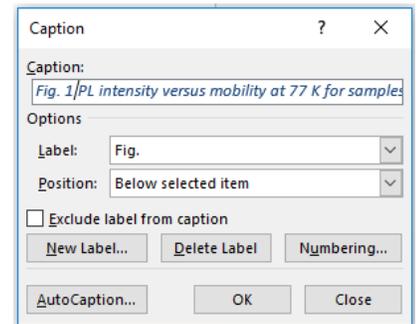
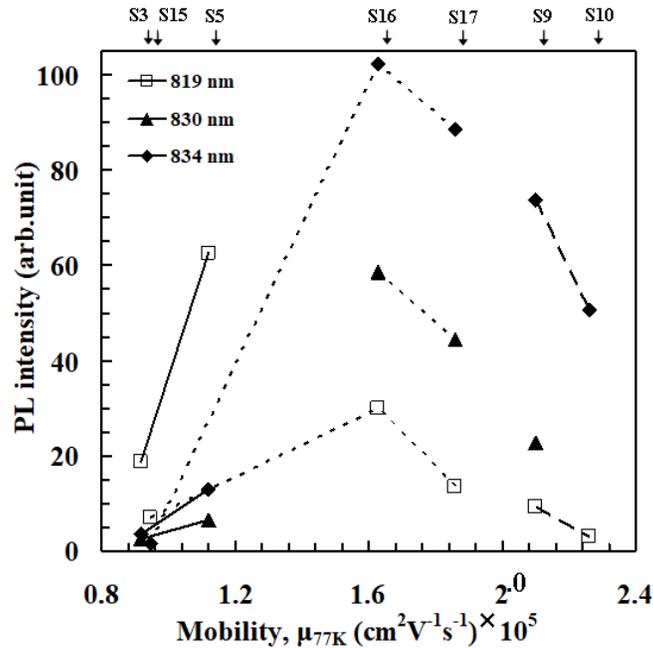


Fig. 2.1 PL intensity versus mobility at 77 K for samples from different lots at three different wavelengths. (Solid lines Lot A; thick broken lines Lot B; thin broken lines Lot D). Joined lines indicate the same lot.