

**Tribhuvan University
Institute of Science and Technology
Dean's Office
Kirtipur, Kathmandu**



**Regulations of Ph. D. Programme, Revised as per the
guideline of UGC-Nepal-2074**

October 2017

Tribhuvan University
Institute of Science and Technology
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**Regulations of Ph. D. Programme, Revised as per the guideline of
UGC-Nepal-2074**

The doctoral (Ph.D.) programme of Tribhuvan University Institute of Science and Technology (IOST) is intended for those who wish to develop career in teaching, research and advanced knowledge in the field of Science and Technology. The Ph.D. students are expected to achieve a high standard of academic excellence and contribute to scientific theory and/or experiment through original research.

The Ph. D. programme of IOST is regulated by the Research Committee (RC -IOST) constituted under the chair of the Dean in accordance to *Tribhuvan University Organization and Academic Administration Rule 2050, chapter 3, section 9*. The research committee frames its necessary working rules in compliance with the existing regulation. The Ph. D programme is conducted according to the following rules and regulations.

1. Entry Requirement:

- TUAcandidate. must pass entrance exam conducted by IOST,
- A candidate requires at least second division or 3.0/4.0 CGPA in the Master Level (M.Sc. in respective discipline or M.A. in Mathematics & Statistics from T.U. or from any University recognized by T.U.)
- Candidate passed with 2nd division or 3/4.0 CGPA must have 2 years work experience.
- Candidate passed with 1st division or 3.3/4.0 CGPA must have 1 year work experience.
- Candidate passed with distinction or 3.7/4.0 CGPA need not require work experience.
- For interdisciplinary: candidate must complete 30 CH (Credit hour) conversion course. Candidate who takes 30 CH course after joining the department he/she will be eligible to be awarded Ph.D. Degree from that department. Otherwise, he/she will be awarded Ph.D. in his/her respective M.Sc. degree from the registered department.

- Priority will be given to those candidate who has at least one paper in peer reviewed Journal. This will be applicable while registering in the department.

2. **Mandatory Course Work**

Ph.D. students should complete 18 credit hour courses within first two semesters of the enrolment. The course details are as follows.

| | | |
|-------------------------|---|----------------------|
| Duration of course work | : | 2 semesters. |
| Total Marks | : | 450 marks |
| Duration of examination | : | 2 hrs for each paper |

First Semester

Title of course:

- Research methodology (General) : 3 CH
- Philosophy : 3 CH
- Seminar : 3 CH

Note: The syllabus for first two courses will be designed and conducted by IOST, TU, for all Ph.D. students. Seminar will be arranged at the concerned department and campuses.

Second Semester

Title of course

- Research methodology (Advanced) (software, programming, theory, fieldwork, lab work etc.) : 3 CH
- Specific course as per the demand of Ph.D. work. 3 CH
- Seminar. 3 CH

Note: The syllabus for these courses will be designed and conducted by concerned departments of TU.

- Examination will be held at the end of each semester.
- Total lecture hrs (periods) 135 hr per semester. (1 CH is the equivalent to 15 hr)
- For the remuneration to faculties, entrance fee, exam fee etc., a committee should be formed by IOST, TU.

- Admission procedures and entrance examination will be as per the rule of T.U.
- For part time Ph.D. students, two semesters (during course work) should be regular as per the rule and calendar of concerned department.

3. **Ph.D. Supervisor Qualification**

- Ph.D. supervisor should be a permanent faculty member of TU with a Ph. D. degree.
- Supervisor should be working as professor or reader in the concerned department/campus of TU.
- Supervisor should have at least 5 publications in the international or index journal of respective subject.
- Lecturer can also supervise the Ph.D. thesis provided he/she has at least 8 papers in international or index journal of respective subjects.
- A University teacher can supervise fixed number of Ph.D. students at a time as follows:

| | |
|-----------|---|
| Professor | 5 |
| Reader | 4 |
| Lecturer | 2 |

4. **Ph.D. Co-supervisor Qualification**

- Ph.D. co-supervisor should be Ph. D. degree holder and faculty member in the concerned department of IOST/other relevant institutions (government sectors, hospitals, industry, research centre, etc.).
- Co-supervisor should have at least 2 papers in relevant subject in international or index journal.
- A University faculty can co-supervise fix number of Ph.D. students, as follows:

| | |
|-----------|---|
| Professor | 5 |
| Reader | 4 |
| Lecturer | 3 |

5. **Requirement for conducting Ph.D. Program:**

- Institution/Department must have been conducting Master/M. Phil program at least for 5 years.

- Institution/Department must have permanent faculties viz. Professor-2, Reader or Lecture -6.

6. Candidate should obtain plagiarism clearance certificate before the submission of Ph.D. Thesis.

7. Schedule for Ph.D. Enrolment (tentative): Annual

8. Role of CDRC (Central Department Research Committee)

- 8.1. The Central Department Research Committee shall undertake the academic and internal evaluation and review responsibility of Ph. D. programme.
- 8.2. The Head of Central Department shall form five members Central Department Research Committee (CDRC) including one subject expert from outside.
- 8.3. The Central Department shall manage meeting allowance for the CDRC meetings and try to generate resources for research.
- 8.4. The CDRC shall certify that most of the research work offered by the candidate is one, which can be pursued in the Department or Campus.

9. Enrolment and Registration

A candidate interested to enrol into Ph.D. programme shall apply to the concerned Central Department, where he/she intends to work in a subject related to his/her research.

- 9.1 The application form (on approved format) and processing charge for enrolment in Ph.D. programme shall be available from the concerned Central Department of IOST on payment of the amount as decided by the Dean's Office.
- 9.2. The candidate shall get application every year and the application must include a research proposal and CV of candidate as well as of the Supervisor and Co-supervisor (s) including a list of publications, recommendation of the supervisor, no objection letter from employer, assurance letter of study leave from the employer only for full time research candidate.

- 9.3. The Central Department Research Committee (CDRC) shall evaluate the research proposal and application. The candidate shall have to defend the proposal in the Central Department to justify that he/she possesses adequate knowledge in the field of study proposed for the Ph.D. research. The CDRC shall also certify that the subject offered by the candidate is one which can be pursued either within the department, or any other concerned department or a research centre of Tribhuvan University or any other research institute recognized by the research committee. A letter of permission/consent of the Head of Department/Laboratory/Institute/Research centre shall be attached along with the application.
- 9.4. After incorporation of suggestions (if any), the CDRC shall recommend the application to the Research Committee of IOST, for registration into the Ph. D. course. The Central Department shall forward the application to the IOST within three months.
- 9.5. IOST will organize meeting of the Research Committee to approve the recommendation of CDRC. The Dean's Office will inform the CD Head, the concerned institute, the candidate and supervisor about the decision on application within two months. In case of approval, the candidate should get registered in the IOST.
- 9.6. Dean's office shall provide the candidate a provisional registration for one year. The candidate has to prove his/her research ability within one year. After receiving recommendation from the CDRC, the Research Committee of IOST will consider the candidate as a Ph.D. student.
- 9.7. The title of Ph. D. thesis shall be provisional at the time of registration. It shall be finalized six months before submission of the thesis, and approved by the Research Committee after recommendation from CDRC.
- 9.8. The candidate pursuing interdisciplinary research shall fulfil requirement as suggested by the CDRC before registration (see condition for interdisciplinary research).
- 9.9. If approved by the research committee, the candidate shall register into IOST by payment of registration and other fees

decided by the Research Committee of IOST. The fees would be charged till the thesis is finally submitted to the department.

- 9.10 A Ph.D. student must attend the course/seminar organized by the concerned Department (CDRC)
- 9.11. After enrolment for Ph. D., the student shall not undertake any responsibility except research without approval of CDRC, at the recommendation of the supervisor.
- 9.12. A Ph. D. student shall not enrol for any other degree during the Ph.D. research period.
- 9.13. A Ph. D. candidate's registration would be cancelled if he/she violates any regulations and progress is unsatisfactory.
- 9.14. Research Centre for Applied Science and Technology (RECAST) can conduct Ph. D. Program under the research guidelines of IOST. The RECAST should forward Ph. D. applications and thesis to IOST and IOST may take opinion from concern CDRC. However this clause is not applicable according to guide line of UGC-2073 (see above guideline 5).

10. Condition for Interdisciplinary Research

- 10.1. IOST-TU, promotes interdisciplinary research. The candidate willing to enrol for Ph.D. in subject different from his/her M.Sc. must complete pre-requisites such as course work/ bridge course or fulfil the required background by teaching experience and publications.
- 10.2. If a candidate requests the CDRC to change his/her supervisor showing a genuine reason the CDRC can entertain the application and recommend it, if justified to the research committee. In case of such situation with co-supervisor, supervisor shall report CDRC accordingly with justification.

11. Supervision of Research Work.

- 11.1. A candidate must pursue research work at the Central Department or any other pertinent Department, Campus or research centre of Tribhuvan University for a duration of three years from the date of enrolment. However, with the recommendation of the supervisor and permission from Department, part of the work can be carried out in the research centre or laboratory/institute recognized by the CDRC.

- 11.2. In case of MOU with research organizations, the Ph. D. work can be conducted at that organization.
- 11.3. Ph. D. Research shall be monitored regularly by the CDRC and Campus/ Research Committee (Science and Technology) CRC(ST). A Progress report by the Ph. D. student should be submitted in every six months to the Dean's office through the CDRC. The Ph.D. student shall present a seminar about his/her research work in the Central Department at least once a year as decided by the CDRC.
- 11.4. Responsibility of the supervisor shall be to guide the candidate in research, keep the log book of Ph. D. student, send the annual confidential report of the candidate, check the thesis and recommend for examination to CDRC if satisfied. The CDRC may seek advice or any other cooperation from supervisor and co-supervisor.
- 11.5. The supervisor and the concerned department/campus/ research centre shall keep records of the progress and attendance of the candidate and forward a brief report on approved format about the progress of the candidate's work conducted by him/her as well as carried out outside the central department or some other institute. The candidate shall request the Head where he/she is working to send the attendance and progress report to the CDRC for approval.
- 11.6. Once the supervisor accepts the candidate for Ph. D, it is his/her responsibility to guide the candidate, and if the Ph. D. student is not regular, then he/she should inform to CDRC in time.
- 11.7 If a candidate requests the CDRC to change his/her supervisor showing a genuine reason, the CDRC can entertain the application and recommend it if justified to the research committee. In case of such situation with co-supervisor, supervisor shall report CDRC accordingly with justification.
- 11.8. In case of a difference arising between a candidate and his/her supervisor and other matters viz. transfer of supervisor, health problem, etc the CDRC shall report the matter to the Research Committee with recommendation for decision.

11.9. A faculty member who is going to retire after a one year from Tribhuvan University shall not enrol a Ph. D. student under his/her supervision. However, he/she can continue supervision for already registered student, and can undertake Ph.D. student as co-supervisor. However on special case Research Committee, Dean office will take decision.

12. Time Requirement for Ph.D.

12.1(a) Full time researcher: The Ph. D. thesis of full time researcher shall be submitted only after the completion of three years of registration. However, for an exceptional work, evident from standard publications, the CDRC may recommend submission of thesis after 2 years of registration. If the candidate cannot submit the thesis within five year of registration it will be considered automatically cancelled.

(b) Part time researchers: The PhD thesis of part time researcher shall be submitted after completion of five years from the date of registration. The thesis must be submitted within seven years of registration, and if not submitted, it will be considered automatically cancelled. This rule will also be enforced to the part time researchers who were enrolled before amendment of regulations of Ph.D. programme, 2071.

As provision of IOST a full time researcher is considered as a researcher who will give his/her full time in research work with taking leave from their job otherwise that candidate will be considered as a part time researcher.

12.2. Re-Registration: If a candidate fails to submit thesis as per rule 12.1, but has worked substantially, then he/she can request for re-registration on same topic and under same supervisor. He/she can get re-registered by submitting fresh application to the Central Department within a month of expiry of registration. In such case the candidate can submit thesis within two years, but not before six months of re-registration (full time researcher) whereas for part time researcher it will be within three years from the date of re-registration. If candidate fails to submit thesis within two years of re-registration for full time and three years for part time researcher then his/her re-registration will be automatically cancelled. The fee shall be double than their normal registration period for both the cases.

- 12.3. Before submission of the thesis, the candidate has to present research work in a pre-submission seminar organized by the CDRC. The CDRC must send the report of this presentation with recommendation to the research committee of IOST.

1. Attendance

All the Ph.D. students must show at least 80% attendance in the register kept at the Department or Campus. The supervisor must forward the attendance to CDRC through Campus Chief/ Department Head.

2. Thesis Format and Official Requirements

- 14.1. On completion of the research work the candidate must submit a soft copy and four copies of neatly computer-printed spiral bound thesis and its summary in a format approved by the Research Committee along with the recommendation of CDRC, which shall be forwarded to the Dean, IOST with necessary recommendations.
- 14.2. A candidate shall submit a declaration in writing in thesis through the supervisor to the effect that:
- a. He/she has not submitted the thesis to any other institute, and
 - b. The thesis submitted by the candidate is the work of his/her own and is not on the basis for which the Ph. D. degree has been already awarded by any other University/Institute.
- 14.3. The thesis submitted for examination shall satisfy the following requirements:
- The thesis must render some substantial contribution to knowledge and show evidence of originality through the discovery of new facts and findings or the exercise of independence and critical power in interpretation of facts and theories, or the new interpretation of facts and theories.
 - It must also be satisfactory in terms of its language and presentation.

- The thesis must be written in English.
- The hard bound copies must be submitted to Dean's office after viva-voce.

14.4. At least two original research papers of the Ph. D. research work must be published in an indexed journal including one in international journal. Also, at least once, participation and presentation of research related papers in National / international seminars symposia / conferences is required.

3. Evaluation of Thesis

15.1. The research committee shall ask the supervisor to submit a minimum of seven names of experts in the related subject as a panel of thesis examiners, out of which at least three examiners must be from overseas, and four from SAARC countries including at least one from Nepal.

15.2. The thesis shall be sent to three examiners, at least one from overseas and two from SAARC, appointed by the Research Committee. The examiners may recommend on the format that the thesis be accepted for the award of Ph.D. degree or that the thesis be rejected or that the thesis be allowed to be resubmitted with improvements as suggested by the examiners.

15.3. If there is a difference of opinions among the examiners in regard to the acceptance of the thesis, the following arrangements shall be made for the final decision.

- The thesis will be rejected, if two out of three examiners reject the thesis.

- If one examiner rejects the thesis, it will be referred to a new examiner, for final decision, however, if the new examiner rejects it again, the thesis will be rejected.

- In case any one of the examiner suggests that the thesis be allowed to be resubmitted with improvements or revision, the candidate will be asked to make the necessary improvements and revisions according to the suggestions made by the examiner(s).

- The thesis must be resubmitted if so recommended by the examiner(s) only once, and it shall be examined by the examiner assigned by Research Committee.
 - A revised thesis must be resubmitted by the candidate within six months from the date of information on the decision of the research committee to him/her. The revised thesis shall reach to the IOST accompanied by the full amount of examination fee within two weeks of the time allowed for the submission of thesis.
- 15.4. If the thesis is accepted, the candidate shall have to take an open oral examination (viva-voce), which will be conducted by the external examiner appointed by the Research Committee in presence of the Dean, CDRC, the concerned department, supervisor(s), members of research committee and other interested persons. In case the examiner appointed to conduct the oral examination (viva-voce) is not available, the Research Committee may appoint another examiner to conduct the oral examination (viva-voce) on given time.
- 15.5. The report of the examiners on the thesis as well as the examiner conducting oral examination (viva-voce) shall be finally considered by the Research Committee, and forward it for the Ph.D. degree to concerned authority.
- 15.6. In case of successful defence by the candidate the Dean shall notify the result in accordance with the decision of the research committee and publish the result and communicate it to the news media.
- 15.7. The Dean shall forward the result of the Ph.D. degree to the concerned authority for conferring the degree.

4. Ethical Issues

The Ph. D. researcher should maintain all the ethical issues pertinent to research. They are required to get permission of the concerned department or council or community or individual as per the nature of the research. The Ph. D. researcher will conduct all the research activities complying with the existing laws, and rules/regulations of the country. TU-IOST will not be responsible for any consequences in failing to do so by the candidate.

**Institute of Science and Technology (IOST) Tribhuvan University
(T.U.) Kirtipur, Kathmandu Nepal 2014**

General Guidelines for Ph.D. Thesis Format

In order to maintain the uniformity in the format of the Ph.D. thesis carried out in different departments under Institute of Science and Technology (IOST), Tribhuvan University, Nepal, the following guidelines are prepared.

Items included in Ph.D. Thesis

- i. Cover Page
- ii. Blank Page
- iii. Inner cover page
- iv. Declaration
- v. Recommendation
- vi. Letter of Approval
- vii. Acknowledgements
- viii. Abstract
- ix. Table of Contents
- x. List of Acronyms and Abbreviations
- xi. List of symbols (if any)
- xii. List of Tables
- xiii. List of Figures

The details of these items with examples are given below.

(Format for cover page) [TITLE OF THE Ph.D. THESIS] Comment [s1]: (All caps, Bold, Font size: 18)

[Logo of T.U.]

**A THESIS SUBMITTED TO THE
Comment [s2]: All caps, not bold, font size: 14)**

**CENTRAL DEPARTMENT OF
INSTITUTE OF SCIENCE AND TECHNOLOGY TRIBHUVAN
UNIVERSITY NEPAL**

Comment [s3]: All caps, Bold, Font size: 14

**FOR THE AWARD OF
DOCTOR OF PHILOSOPHY
IN**

Comment [s4]: (All caps, Bold, Font size:14)

BY

Comment [s5]: All caps, not bold, Font size:14

[FULL NAME OF THE RESEARCH SCHOLAR] [MONTH YEAR]

Comment [s6]: All caps, Bold, Font size:14

(Example of Cover page)
**INVESTIGATION ON INORGANIC SALTS BASED ION
SELECTIVE ELECTRODES**



**A THESIS SUBMITTED TO THE
CENTRAL DEPARTMENT OF CHEMISTRY INSTITUTE
OF SCIENCE AND TECHNOLOGY TRIBHUVAN
UNIVERSITY NEPAL**

**FOR THE AWARD OF DOCTOR OF
PHILOSOPHY IN CHEMISTRY**

BY

JULY 2011

BLANK PAGE

(Format for inner cover page)
[TITLE OF THE Ph.D. THESIS]

[Logo of T.U.]

**A THESIS SUBMITTED TO THE
CENTRAL DEPARTMENT OF
INSTITUTE OF SCIENCE AND TECHNOLOGY TRIBHUVAN
UNIVERSITY NEPAL**

**FOR THE AWARD OF
DOCTOR OF PHILOSOPHY
IN**

BY

[FULL NAME OF THE RESEARCH SCHOLAR] [MONTH YEAR]

(Example of Cover page)
**INVESTIGATION ON INORGANIC SALTS BASED ION
SELECTIVE ELECTRODES**



A THESIS SUBMITTED TO THE
**CENTRAL DEPARTMENT OF CHEMISTRY INSTITUTE
OF SCIENCE AND TECHNOLOGY TRIBHUVAN
UNIVERSITY NEPAL**

**FOR THE AWARD OF DOCTOR OF
PHILOSOPHY IN CHEMISTRY**

BY

JULY 2011

DECLARATON

Comment [s7]: All caps, Bold, Font size: 16

Thesis entitled “.....**(in Bold faced letter)**”which is being submitted to the Central Department of....., Institute of Science and Technology(IOST), Tribhuvan University, Nepal for the award of the degree of Doctor of Philosophy (Ph.D.), is a research work carried out by me under the supervision of Prof. Dr....., Central Department of....., Tribhuvan University and co supervised by Prof. Dr.....

This research is original and has not been submitted earlier in part or full in this or any other form to any university or institute, here or elsewhere, for the award of any degree.

Comment [s8]: Times New Roman, Font size:12

[signature]

[Name of research scholar]

Comment [s9]: Times New Roman, not bold, Font size:12

RECOMMENDATION

Comment [s10]: All caps, Bold, Font size: 16

This is to recommend that (**official name of research scholar in bold faced letter**)----- has carried out research entitled “----- (in **Bold faced letter**)-----” for the award of Doctor of Philosophy (Ph.D.) in -----(**subject in Bold faced letter**)----- under my/our supervision. To my /our knowledge, this work has not been submitted for any other degree.

He/She has fulfilled all the requirements laid down by the Institute of Science and Technology (IOST), Tribhuvan University, Kirtipur for the submission of the thesis for the award of Ph.D. degree.

Comment [s11]: Times New Roman, Font size: 12

Name of Supervisor

Supervisor

(**Designation.....**) **Comment [s12]:** Times New Roman, Bold, Font size: 12

Central Department of -----Tribhuvan
University
Kirtipur, Kathmandu, Nepal

- **Comment [s13]:** Times New Roman, Font size: 12

Name of Co-Supervisor (if any)

Co-Supervisor

(**Designation**) **Comment [s12]:** Times New Roman, Bold, Font size: 12

Central Department of -----
Tribhuvan University
Kirtipur, Kathmandu, Nepal

- **Comment [s15]:** Times New Roman, Font size: 12

[Month Year]

Comment [s16]: Times New Roman, Bold, Font size: 12

**(This content should be in Letter Head of
Concerned Department)**

LETTER OF APPROVAL

Comment [s17]: All caps, Bold, Font size: 16

[Date: Day/Month/Year]

Comment [s18]: Times New Roman, Font size: 12

On the recommendation of Prof. Dr **(official name of supervisor/co-supervisor** (if any)-----, this Ph. D. thesis submitted by **(official name of research scholar) -----** -----, entitled “**.....(in Bold faced letter).....**” is forwarded by Central Department Research Committee (CDRC) to the Dean, IOST, T.U..

.....
Name of Head of Department

Comment [s19]: Bold, Times New Roman, Font size:12

Professor,
Head,
Central Department of,
Tribhuvan University
Kirtipur, Kathmandu
Nepal

Comment [s20]: Times New Roman, Font size: 12

ACKNOWLEDGEMENTS
(Font size – 16, Bold faced letter, all caps)

Text : 12 points font size

Page size: Not more than 2 pages in justified form

(Name of Research Scholar)

Month Year

Comment [s21]: Times New Roman, Font
size:

ABSTRACT
(Font size – 16, Bold faced letter, all caps)

Text: 12 points font size

Page size: Preferably one page but not more than 2 pages in justified form

**LIST OF ACRONYMS AND
ABBREVIATIONS**
(Font size – 16, Bold faced letter, all caps)

Example:

(Text : 12 points font size)

DC : Direct Current

DTA : Differential Thermal Analysis

LIST OF SYMBOLS (if any)
(Font size – 16, Bold faced letter, all caps)

Example:

(Text: 12 points font size)

γ Activity Coefficient

ϵ Relative Dielectric Constant

ϵ_0 Dielectric Permittivity

LIST OF TABLES
(Font size – 16, Bold faced letter, all caps)

Example:

(Text : 12 points font size)

Page No.

Table 1(Bold faced letter):

1

Table 2(Bold faced letter): -----(not bold)-----2

LIST OF FIGURES
(Font size – 16, Bold faced letter, all caps)

Example:

(Text : 12 points font size)

Page No.

| | |
|---|---|
| Table 1(Bold faced letter): -----(not bold)----- | 1 |
| Table 2(Bold faced letter): -----(not bold)----- | 2 |

TABLE OF CONTENTS
(Font size – 16, Bold faced letter, all caps)

(Text: 12 points font size)

| | Page No. |
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| Acknowledgements | v |
| Abstract | vi |
| List of Acronyms and Abbreviations | vii |
| List of Symbols (if any) | viii |
| List of Tables | ix |
| List of Figures | x |

CHAPTER 1 (Bold faced, all caps, 14 font size).....

1. INTRODUCTION (Bold faced, all caps, 12 font size)-----

1.1 Introduction (bold, 12 font size).....

1.2 Rational

1.3 Objectives

CHAPTER 2 (Bold faced, all caps, 14 font size).....

2. LITERATURE REVIEW.....

2.1 (Sub headings, if any)

2.2....., etc.

CHAPTER 3 (Bold faced, all caps, 14 font size).....

3. MATERIALS AND METHODS

3.1 (Sub headings, if any)

3.2....., etc.

CHAPTER 4 (Bold faced, all caps, 14 font size).....

4. RESULTS AND DISCUSSION

4.1 (Sub headings, if any)

4.2....., etc.

CHAPTER 5 (Bold faced, all caps, 14 font size).....

5. CONCUSION AND RECOMMENDATIONS

CHAPTER 6 (Bold faced, all caps, 14 font size).....

6. SUMMARY

REFERENC

APPENDIX: Scientific Publication, questionnaires, long computational algorithms (if necessary)

Note: Ph.D. thesis for some of the departments such as Statistics and Mathematics may not fit into the above mentioned patterns (Introduction, Review of Literature, Materials and Methods, Results and Discussion, Conclusion, Summary and Recommendation for Further Work). For such situations, the body part of the thesis should be of having the following order:

- i. Introduction
- ii. Chapters with the specific heading covering the research work done by the Ph.D. research scholar.
- iii. Summary and conclusions (This includes the overall summary, conclusions and the recommendation for further work if applicable).

Hence the Ph.D. research scholar from Department of Mathematics and Statistics may follow either one of these two patterns whichever suits based on the nature of the work. This alternative format is given below.

Alternative Format of Ph.D. Thesis for Mathematics and Statistics Department

TABLE OF CONTENTS

(Font size – 16, Bold faced letter, all caps)

(Text: 12 points font size)

| | Page No. |
|--|---------------------|
| Declaration | ii |
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| Certificate of Approval | iv |
| Acknowledgements | v |
| Abstract | vi |
| List of Acronyms and of Abbreviations | vii |
| List of Symbols (if any) | viii |

| | |
|-----------------|----|
| List of Tables | ix |
| List of Figures | x |

CHAPTER 1(Bold faced, all caps, 14 font size).....

- 1. INTRODUCTION-(Bold faced, all caps, 12 font size) ----- 1**
1. 1 Introduction (not bold, 12 font size).....
 1. 2 Rational
 1. 3 Objectives

CHAPTER 2(Bold faced, all caps, 14 font size).....

- Chapter 2 (Chapters with specific heading based on research work)
 Chapter 3(Chapters with specific heading based on research work)
 Chapter 4(Chapters with specific heading based on research work)

CHAPTER 5 (Bold faced, all caps, 14 font size).....

5. SUMMARY AND CONCLUSIONS

5. 1 Summary
5. 2 Conclusions
5. 3 Recommendations for Further work

REFERENCES

APPENDIX: Scientific Publication, questionnaires, long computational algorithms (if necessary)

Language

- Must be written in English language
- Presentation of thesis in Viva-Voce examination should also be conducted in English medium.

Length

- Preferably is between 100 to 300 pages including all pages of the thesis

Printing

- High contrast laser printing (single sided printing only)
- Good quality of white bond paper of A4 size (210 mm × 297mm)
- Photocopy is not acceptable

Typeface and font size

- Must be written in Times New Roman.
- The font size should be 12 points throughout the text including page numbers except other things mentioned in some preliminary pages.

- The font size for headings should be 12 (bold faced letter) and for subheadings 12(bold faced letter).
- The scientific names should be in italics.
- Equations and formulae should be preferably typed in 10 or 12 point font size.

Tables and Figures

- Should appear in the text closely following the point where it is first discussed.
- The table number and heading should be placed above the body of the table.
- The figure number and the caption should be in general placed below the figure except some constraints for the software generated figures.
- The text font size in the table and figure should be 10 and font is Times New Roman.
Example: **Figure 1(Bold):**..... (Title: Not bold).....
Table 1(Bold): (Title: Not bold).....
- Figure and table numbering must be continuous throughout the thesis.

Margins

- Top, right hand, and bottom margins: 2.5 cm
- Left hand margin: At least 1.5 inches so that binding should be accommodated
- Page numbers should be at least 0.5 inch from every lower edge
- The text should be justified.

Spacing

- Spacing throughout body of text: 1.5 spacing.
- Spacing for references: 1.5 spacing *within* each entry but double spacing *between* each entry.
- Spacing for table of contents, list of tables, list of figures or illustrations, and lengthy tables: 1.5 or even single spacing may be used.

Binding

- Good quality of hard binding (in black color and printed with golden ink) is required.

- The following information must be printed on the spine of the binding:
 - Title (the student should provide a shortened version if necessary)
 - Author's last name
 - Year of submission of the thesis

Pagination

- Every page in the thesis has a number.
- For the preliminary pages (such as *declaration, certificate of approval, table of Contents, list of tables, list of figures, list of tables, list of symbols, etc.*) use small Roman numerals (i, ii, iii, iv, v...). These may be placed at the bottom of the page. Count the inner cover page as page i and the other pages such as declaration, certificate of approval, dedication page (if any) ii, iii, iv, etc, *but do not print the page number on inner cover page. Print the page numbers from "Declaration"*.
- For the text, use Arabic Hindu numbers (1, 2, 3, 4, 5...) starting with page one (the first page of the text itself i.e. Chapter 1).

Subunits in the Contents

Subunits of the contents should be as follows:

1.1
 1.1.1
 1.1.1.1
 1.1.1.1.1
 1.1.1.1.1.a

- Page numbers can be at the centre bottom and should be at least half an inch from any edge of the paper to avoid loss when the thesis is trimmed. Since page numbers are used to demonstrate that the thesis is complete, every page must be consecutively numbered, including the pages containing tables, graphs, illustrations, and references.

Photographs

- The clear with high resolution photographs should be used wherever necessary
- The colour or black and white photographs can be used in the thesis.

Use of colour

- Colour graphics may be used when appropriate. However, all copies of the thesis must be identical.

Reference and Citation in the Text

The references should be arranged in alphabetical with chronological order by surname of the first author. American Psychological Association (APA) format should be preferably followed for references and citations in the text. Spacing for references should be of 1.5 spacing *within* each entry but double spacing *between* each entry. Also use hanging indents: entries should begin flush left with subsequent lines indented. However, any other standard format such as AMS (American Mathematical Society), AIP (American Institute of Physics), ACS (American Chemical Society), etc. can also be accepted in their respective subjects but the format must be uniform throughout the thesis.

Typical style of writing the references and citations in APA format are given below.

BOOKS:

One Author

Surname, initials, (year), Title of the book, Place, Publication
Gore, A. (2013). *An inconvenient truth: The Planetary emergency of global warming and what we can do about it*. Emmaus, PA: Rodale.

Citation in the text: (Gore, 2013) or Gore (2013) explained.....

Two Authors

Michaels, P.J., & Balling, R.C. (2000). *The satanic gases: Clearing the air about global warming*. Washington, DC: Cato Institute.

Citation in the text: (Michaels & Balling, 2000) or Michaels and Balling (2000) stated that.....

Three Authors

Sthapit, A., Yadav, R., & Khanal, S. (2013). *Fundamentals of Statistics*. Kathmandu, Ashmita Publications.

Citations in the text: (Sthapit, *et al.*, 2013) explained

JOURNAL ARTICLES:

One Author

Khanal S. P. (2011). Achievements, Challenges and Opportunities of Statistics for the Twenty First Century. *Management Dynamics*, **15**(1): 15-21.

Citations in the text: (Khanal, 2011) or Khanal (2011) highlighted.....

Many Authors

Thapa, S.S., Khanal, S.P., Paudel, I., Gurung, R., Ruit, S., & Van Rens, H.M.B.(2012). A Population based Survey of the Prevalence and Types of Glaucoma in Nepal: The Bhaktapur Glaucoma Study. *Ophthalmology*, **119**(4): 759-764.

Citations in the text: (Thapa et al., 2012) or Thapa et al. (2012) found that.....

The names of the Journals should be typed exactly as the name of the journal such Stat. Med. J. Am. Stat. Assoc., J. Chem. Phys., Nat. Commun., etc.

PH.D. /MASTER'S THESIS

Rajbhandari (Nyachhyon), A. (2011). *Investigation on Inorganic Salts based Ion Selective Electrodes* (Unpublished doctoral dissertation). Central Department of Chemistry, Institute of Science and Technology, Tribhuvan University, Kathmandu, Nepal.

INTERNET ARTICLE BASED ON A POINT SOURCE (EXACT DUPLICATE) WITH DOI ASSIGNED

Stultz, J. (2006). Integrating exposure therapy and analytic therapy in trauma treatment. *American Journal of Orthopsychiatry*, **76(4)**: 482-488. doi:10.1037/0002-9432.76.4.482

INTERNET ARTICLE (E-JOURNAL) WITH NO DOI ASSIGNED

Sillick, T. J., & Schutte, N. S. (2006). Emotional intelligence and self-esteem mediate between perceived early parental love and adult happiness. *E-Journal of Applied Psychology*, **2(2)**: 38-48. Retrieved from <http://ojs.lib.swin.edu.au/index.php/ejap/article/view/71/1>
0 Accessed on (dd/mm/yy).....

Format of Examiner's Report

Examiner's Report (Internal) Institute of Science and Technology (IOST) Tribhuvan University, Nepal Recommendation of Ph.D. Thesis

Name of the Candidate:

Title of the Thesis:

Please give your **specific recommendation** by ticking (✓) any one of the following, with signature underneath and enclose your **detailed report** on separate sheet(s) with your signature, name and address.

The thesis **be accepted** for the award of the Ph. D. degree subject to viva voce examination.

OR

The thesis **is acceptable** for the award of the Ph. D. degree subject to the clarification of **certain points at the time of Viva-Voce**.
(Please enclose the points)

OR

The thesis **is not acceptable in the present form but may be accepted** subject to **modification/clarification/revision**. (Please enclose your suggestions for modification etc. desired)

OR

The thesis **be rejected**. (Please enclose your comments)

Place : Signature of the Examiner:

Date : Name of the Examiner:

Designation:.....

Organization:.....

Encl: (i) Detailed report on separate sheet(s).

List of points for clarification. 38

Format of Remuneration Receipt for Examiner

Institute of Science and Technology (IOST) Tribhuvan University, Nepal

I have received amount of NRs..... (In words:.....) as a remuneration for the work of Ph.D. thesis evaluation and report preparation (Internal examiner/External examiner)/ viva-voce examiner/ format checking.

IOST office Authority

Signature:

Name:

Designation:

Date:

Receiver's Details

Signature:

Name:

Designation:

Institution:

Date:

(Ph.D. Application Form)

**Tribhuvan University
INSTITUTE OF SCIENCE AND TECHNOLOGY
(IOST)**

Dean's Office, Kirtipur, Kathmandu

Tel: 4330844

Application form for the Enrolment in Ph.D. Programme
Central Department of.....

1. Full name (in block letters) : 2. Sex :
3. Date of birth (D/M/Y) : 4. Place :
5. Nationality :
6. Permanent Address: Zone:
District:.....
VDC/ Muni:
Ward:, Block:
Telephone:
7. Corresponding Address: Zone:
District:
VDC/ Muni:
Ward:, Block :
Telephone:, Mobil:.....
E-mail:.....
8. Occupation:
9. Name of working institution:.....
Address:.....
Tele.....phone:.....
Position:
Nature of the job: Full time:..... Part time :

9. Academic Qualification:

| Level | Board/ University | Year | Major Subjects | Division / Grade | % of marks / CGPA |
|-------|----------------------|------|-------------------|---------------------|----------------------|
| SLC | | | | | |
| PCL | | | | | |

| | | | | | |
|----------|--|--|--|--|--|
| Bachelor | | | | | |
| Master | | | | | |
| Others | | | | | |

10. Research experience & publications: List of publications (Latest 3, if any):

- i.
- ii.
- iii.

11. Work experience & Trainings (if any):

- i.
- ii.
- iii.

12. Subject and Title of the Ph.D. Research Work: Subject:

Title:.....

.....

13. Expected Duration:.....14. Intended Place:

.....

15. Documents must be submitted by the applicant along with this application:

- i. Photo copies of certificates of Diploma, degree
- ii. Photo copy of citizenship
- iii. copies of Ph.D. proposal
- iv. copies of updated Curriculum Vitae of applicant
- v. Consent letter from the working authority

16. Declaration by the Applicant:

- i. The information provided above is true and accurate
- ii. All documents attached with this Application Form are authentic
- iii. I have understood all the guidelines about the Ph. D. program under Tribhuvan University, Institute of Science and Technology (IOST).

Date:

.....

Signature of the Supervisor

Place:

17. Supervisor's Details:

Name:
Designation:
Department:.....
Supervisor's comment on proposed work:.....
.....
.....

.....
Signature of the Supervisor

18. Co-supervisor's details (if any):

(i) Name:
Designation:
Institution/ Department:.....

(ii) Name:
Designation:
Institution/ Department:.....

(iii) Name:
Designation:
Institution/ Department:.....

(Please attach short Curriculum Vitae of the Supervisor indicating research experience and publications)

For official use only:

Copies of the documents submitted have been checked with the original documents.

Checked by :

• Comments of CDRC (Please attach separate paper if necessary).....
.....

.....
Signature of the Head of the Department

Date:.....