

IFTM UNIVERSITY, MORADABAD Lodhipur Rajput, UP-244102

GUIDELINES FOR PREPARING THE THESIS OF

Doctor of Philosophy

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GUIDELINES FOR PREPARING THE THESIS

1. GENERAL

A Thesis represents well documented manifestation of research work of a scholar. For the sake of uniformity, a manual of guidelines is being provided to the doctoral scholars for the preparation of their thesis.

Every doctoral scholar is advised to have a thorough look through the manual for presenting the research work in the thesis. Keeping the main format intact the scholar may represent the thesis work in a different manner to some extent with the suggestions of the Supervisor/s, if required at all in special case/s.

2. ARRANGEMENT OF THE CONTENTS OF THESIS

Sequentially the thesis contents will be arranged and bound as follows:

- 1. Cover Page and Title Page;
- 2. Bonafide Certificate of Supervision;
- 3. Preface/Introduction;
- 4. Acknowledgements;
- 5. Contents;
- 6. Chapters 1, 2,;
- 7. References;
- 8. Appendices (if any);
- 9. List of Tables;
- 10. List of Figures;
- 11. List of Symbols, Abbreviations and Nomenclatures;
- 12. List of Publications (out of the candidate's present work);
- 13. Curriculum Vitae (of the candidate).

The tables and figures must be incorporated in the appropriate places of different chapters.

3. MANUSCRIPT PREPARATION

3.1 Page Dimensions, Margins and Quality

• The page dimensions of the final copies of the thesis should be 290mm x 205mm. Standard A4 size (297mm x 210mm) paper may be used for preparing the copies. It should have the following page margins:

Top edge : 30 to 35 mm

Bottom edge : 25 to 30mm

Left side : 35 to 40mm

Right side : 20 to 25 mm

- The thesis should be prepared on good quality white paper preferably not lower than 80 gsm.
- Tables and figures should be prepared on good quality paper preferably not lower than 80 gsm. Tables and figures should conform to the margin specifications. Large size figures should be photographically or otherwise reduced to the appropriate size before insertion.

3.2 Cover Page/ Title Page

A specimen of the cover/title page is given in the **Annexure I** it carries

(a) the TITLE of the thesis (Times New Roman, font size 18, bold, single line spacing, all characters uppercase except the symbols and numerals if used in the title of the thesis; centered within the specified margin of the page).

TITLE OF THESIS TITLE OF THESIS TITLE OF THESIS TITLE OF THESIS

(b) the phrase (Times New Roman, font size 14, bold, each line in the Title/Sentence mode, single line spacing, centered within the specified margin of the page).

Thesis Submitted in Fulfillment of the Requirements for the Degree of

(c) The name of the degree (Times New Roman, font size 18, bold, the whole line in uppercase, centered within the specified margin of the page).

DOCTOR OF PHILOSOPHY

after a gap of 16-18 Times New Roman pts, it will be followed by

(d) by (Times New Roman, font size 14, bold, both the characters lower case, centered within the specified margin of the page).

by

(e) NAME OF STUDENT (Times New Roman, font size 16, bold, full name as enrolled, all characters in Title mode case, centered within the specified margin of the page).

Name of the Student

(f) phrase of supervision (Times New Roman, font size 12, bold, line in the Title mode, centered within the specified margin of the page).

Under the Supervision of

(g) NAME(S) OF SUPERVISOR (Times New Roman, font size 14, full name in title mode prefixed by Mr./Ms., Prof. or Dr. centered within the specified margin of the page, separated symmetrically in case of two supervisors, use the next line in case of three supervisors.)

Mr./Ms. Or Prof. or Dr. XXXXXX YYYY ZZZZ

(h) IFTM University logo (size = 25-30 mm dia)

(i) Phrase for the name of faculty (Times New Roman, 12/14 pts., bold, full name of the University faculty in title mode, centered within the specified margin of the page).

For example,

to the Faculty of (Name of the Faculty)

Faculty of Pharmacy

(j) Name of the University (Times New Roman, font size 16, bold, full name, all characters upper case/Title mode, centered within the specified margin of the page).

IFTM UNIVERSITY, MORADABAD

(k) Month, Year ((Times New Roman, font size 14, bold, full name of the month in title mode, comma, 4-digit year in Arabic, all centered within the specified margin of the page).

May, 2013

3.3 Bonafide Certificate of Supervision

The Bonafide Certificate of Supervision of the thesis by the supervisor(s) shall be in double line spacing using Times New Roman, font size 12, as per the format shown in **Annexure II**. The heading **CERTIFICATE** Times New Roman font size 14 bold in the center should start about 60mm -70mm from the top of the page.

The certificate shall carry the supervisor's signature <u>in original</u> and shall be followed by the supervisor's name, academic designation (<u>not any other responsibilities of administrative nature</u>), faculty and address of the University/Institute.

In case of two supervisors, the details about the signature, names, etc. mentioned above shall be centered symmetrically within the specified margin of the page. In case of three supervisors, the details of the third supervisor will appear in the centre underneath the first two.

The place and date of signature (left justified) common for all the supervisors will appear below the signature(s) of the supervisor(s).

3.4 Acknowledgements (optional)

Acknowledgements shall be brief and should not exceed one page when typed in 1.5 spacing Times New Roman with font size 12 within the specified margin of the page. It should begin with title **ACKNOWLEDGEMENTS** Times New Roman with font size 14 bold as heading placed in centre. The signature of the candidate shall be made at the bottom right end above his./her name typed in title case.

3.5 Contents

Contents should list all the contents following this section. The preceding section like the Title Page, Certificate and Acknowledgements will not find a place amongst the items listed in the Contents, but the page numbers in lower case Roman letters shall be accounted for them. The title **CONTENTS** in Times New Roman with size 14 bold as heading be placed in centre. One and a half spacing should be adopted for typing the contents in a manner shown in specimen copy of the Contents as given in **Annexure III**.

3.6 List of Tables

The same numbers and captions should be used exactly in the list of Tables as they appear below the tables in the text. See sections 3.13 and 5.3 for the style of titling, numbering and placing of tables. Single spacing in Times New Roman with size 12 should be used.

3.7 List of Figures

The same numbers and captions should be used exactly in the list of figures as they appear below the figures in the text. See section 3.13 and 5.3 for the style of titling, numbering and placing of figures. Single spacing in Times New Roman with size 12 should be used.

3.8 List of Symbols, Abbreviations and Nomenclature

Single spacing in Times New Roman with size 12 should be used typing the matter under this head. As far as possible, standard and popularly used symbols, abbreviations etc. should be adopted.

3.9 Chapters

Chapters of a thesis may be broadly divided into several parts (i) Introduction including Review of Literature; (ii) Plan of work; (iii) Methodology or Materials and Methods; (iv) Results; (v) Discussion and (vi) Conclusion and directions for future research; and (vii) References.

- Each part may be suitably divided into several chapters and a chapter may be further divided into several sections and sub-sections, sub-sub-sections.
- Each chapter should be given an appropriate title.
- Tables and figures in a chapter should be typed in title mode in 1.5 space in Times New Roman with font size 12. The titles of tables should be placed directly above the table whereas the titles of figures should be placed directly underneath the figure in the very same page which refers to the contents they annotate.
- Footnotes should be used sparingly. They should be typed single space and placed directly underneath in the very same page which refers to the material they annotate.

3.10 Tables and figures:

By the word Table is meant the representation of tabulated numerical as well as non-numerical data in the body of the thesis and also in the appendices. All other non-verbal material used in the body of the thesis and appendices such as charts, graphs, maps, photographs and diagrams may be designated as figures. A proper representation of a table or a figure and its placement immensely adds to the ability to comprehend the work and the suggestive guideline in this regard:

- A table or figure including its caption should be accommodated within the prescribed margin limits and should appear on the page where its reference is made or on the page following the page in case it is not possible to place it on the same page.
- Table and figures on half or less in length should necessarily appear on the same page along with the text. However, they should be separated from the text both above and below by double spacing.
- All tables and figures should be prepared on the same paper or material used for the preparation of the rest of the thesis.

- Captions of table/figures may use characters, numerals or symbols in the title mode.
- Two or more small tables or figures may be grouped if necessary on a single page.
- Wherever possible, the entire colour photographs(s) may be reproduced on a full sheet of photographic paper. More than one photograph can be included on a page.
- Samples of fabric, leather, etc., if absolutely necessary may be attached evenly in a page and fixed/ pasted suitably and should be treated as figures.

3.11 Citation of References in the Thesis

Any work of other researchers used in the research either directly or indirectly must be indicated at appropriate places in the thesis. It could be a journal paper, a paper in conference proceedings, a monograph, a personal communication, or a book; in physical or electronic form.

There are several standards for referencing. A candidate may chose one of his/her choice with the consent of the thesis supervisor(s) and should be consistent throughout. A simple and commonly approach is suggested here.

A reference (other than a book or monograph) should be mentioned at the appropriate places in the text of the thesis by the last name of the first author followed by the year of publication placed inside a pair of parentheses.

- (i) An improved algorithm has been adopted in literature by Jha and Shanker (2009)
- (ii) The issue of FMS scheduling along with balancing has been discussed by Kumar and Shanker (2000a) while the interaction amogst the objectives has been extensively investigated by Kumar and Shanker (2000b) and Stecke et al. (1984).

In case of a book or a monograph, however, the name/s of author should be followed by the year within the pair of parentheses. For example,

Chopra and Meindl (2003) have dealt at length the analysis and design of supply chain.

For the references having two authors, the last names of the two authors in the order of appearance can be used while for more than two authors, generally the last name of the first author followed by et al. and then the year within parentheses is used.

3.12 Listing of References in the REFERENCE section

The listing of references should be typed in alphabetical order of the first author's name in 1.5 spacing starting 4 spaces below the heading **REFERENCES** in Times New Roman with font size 14 bold. The name/s of the authors/authors should be immediately followed by the year and other details. The references should be serially numbered, separated by single space. The papers (in journal or proceedings) should be in sentence mode followed by the name of journal (in italics), vol.(issue), page (from-to) while the book titles should be in title mode in italics followed by the place and publishers. E-resources should have their proper URL. A typical illustrative list given relates to the citation examples quoted above. For typing the references, Times New Roman with font size 11 is recommended.

Jha, J.K. and Shanker, K., **2009**. A single-vendor single-buyer production-inventory model with controllable lead time and service level constraint for decaying items. *International Journal of Production Research*, **47(24)**, pp. 6875–6898.

Chopra, S. and Meindl, P., **2003**. *Supply Chain Management: Strategy, Planning, and Operation*. New Jersey, Prentice Hall.

Kumar Neeraj and Shanker Kripa, **2000a**, A theory of balancing mechanism for comparing the effectiveness of imbalance measures in FMS loading, Proceedings of the Special International Conference on Production Research (ICPR) 2000, Bangkok, August 2-4, 2000, pp 133-139.

Kumar Neeraj and Shanker Kripa, **2000b**, Interaction among FMS loading objectives: a parabolic relationship between workload balance and machine utilization, Proceedings of the Special International Conference on Production Research (ICPR) 2000, Bangkok, August 2-4, 2000, pp 234-239.

Snyder, L.V., **2004**. *Lehigh University*. [Online] (1.3) Available at: http://www.lehigh.edu/~lvs2/download/vrpsolver.html [accessed 17 December 2008].

3.13 Appendices

Appendices in a thesis are provided to give supplementary information, which if included in the main text may serve as a distraction and could tend to dilute the central theme under discussion.

- Each appendix must find its reference in the main body of the thesis.
- Appendices shall carry the title of the contents reported and the same title shall be made in the contents page also.
- Appendices should be numbered using Roman numerals in upper case, e.g. Appendix I, Appendix II, etc.
- Figures, tables, equations and references appearing in appendices should be numbered locally to an appendix e.g. II.1, II.2, III.5 etc and should be referred to at appropriate places just as in the case of chapters.

3.14 List of Publications of the Candidate

The list of publications made by research scholar during the period of research and pertaining to the thesis submitted for the degree should be listed in chronological order in the order of international refereed journals, national refereed journals, proceedings of the conferences, in the same style as followed in providing the list of references (section 3.12). These publications, wherever relevant should be referred to in the main body of the thesis.

3.15 Curriculum Vitae

A vitae mentioning the salient achievements and potentialities of the candidate shall be made at the end of the thesis starting 4-5 single spaces below the heading **Curriculum Vitae** (in Times New Roman with font size 14 bold) to be made in 1.5 spacing preferably using Times New Roman using 12 size, and shall be restricted to a single page.

4. TYPING INSTRUCTIONS

4.1 General

- This section includes additional information for final typing of the thesis. Some information given earlier under 'Manuscript Preparation' shall also be referred to.
- The impression on the typed/ duplicated/ printed copies should be black in colour.
- Certain symbols, characters or markings not found in a standard word processor may
 be hand written using Indian ink or a stylus pen (in case stencil sheets are used).
 Corrections, interlineations and crossing out of letters or words is not permitted in
 any of the copies of the thesis intended for submission. Erasures, if made, should be
 neatly carried out in all copies.
- A sub-heading at the bottom of a page must have at least two full lines below it or else it should be carried over to the next page.
- The last word of any page should not be split using a hyphen.
- 1.5 spacing should be used for typing the general text. The general text shall be typed in font style Times New Roman and Font Size 12.
- All quotations exceeding one line should be typed in an indented space the indentation being 15mm from either margin.

4.2 Chapters, Sections, Sub-sections and Paragraphs

The format for typing Chapter headings, Section headings and sub-section headings are explained through the following illustrative examples.

Chapter headings : CHAPTER 1

INTRODUCTION

Section : 1.1 OUTLINE OF THESIS Sub-section heading : 1.1.2 Review of Literature. The word **CHAPTER** (**no.**) without punctuation should be centered 50mm down from the top of the page. Two spaces below, the title of the chapter should be typed centrally in upper case (capital letters) **TITLE OF THE CHAPTER**. The text should commence 4 spaces below this title, the first letter of the text starting 20mm, inside from the left hand margin.

The section or sub-section headings preceded by their numberings should be left-justified. The typed material directly below section or sub-section headings should commence 2 spaces below it and should be offset 20mm from the left hand margin. The text can be divided over paragraphs within a section or sub-section. Each paragraph should commence 2 spaces below the last line of the preceding paragraph, the first letter in the paragraph being indented from the left hand margin by 20mm.

5. NUMBERING INSTRUCTIONS

5.1 Page Numbering

The preliminary pages of the thesis (such as Title page, Acknowledgement, Contents etc.) should be numbered in lower case Roman numerals e.g. (i), (ii), (iii), The Title page, however, will be treated numbered as (i) but this will not be typed. The page immediately following the title page shall be numbered (ii) and it should appear at the bottom center of the page, and so on. Pages of the main text, starting with Chapter 1 should be consecutively numbered using Arabic numerals e.g. 1, 2, All page numbers (whether Roman or Arabic) should be typed without punctuation in the center of the page 20mm above from the bottom.

5.2 Numbering of Chapters, Sections and Sub-sections

The numbering of Chapters, sections and sub-sections should be done using Arabic numerals only and further decimal notation should be used for numbering the sections and sub-sections within a chapter. For examples sub-section 3 under section 2 of chapter 1 should be numbered as 1.2.3. The heading for a section or a sub-section should immediately follow in the same line after the number with a single space in between.

Appendices and their sections and sub-sections should be numbered in an identical manner using upper case Roman e.g. I, II, starting with Appendix I.

5.3 Numbering of Tables and Figures

Tables and figures appearing anywhere in the thesis should, bear appropriate numbers. The rule for assigning such numbers is illustrated through an example. If a figure in Chapter 3, happens to be the second then Fig. 3.2 is assigned to that figure. Identical rules apply for tables except that the word figure is replaced by the word Table. If figures (or tables) appear in appendices, for example the second figure in Appendix III will be designated as Fig. III.2. If a table is to be continued into the next page, then a line should be drawn underneath an unfinished table and the phrase continued on page no... placed on the right side and underlined should be typed just below the line. The top line of the table continued on the next page should, for example read Table 2.1 (continued) placed centrally and underlined.

While referring to a figure or table in the body of the thesis it should be referred to as Fig.2.4, Table 2.2, Table III.6, and so on.

5.4 Numbering of Equations

Equations appearing in each Chapter or Appendix should be numbered serially, the numbering commencing a fresh for each Chapter or Appendix. For example, the fifth equation in Chapter 3, should be numbered as (3.5) thus:

$$f_{c} = k \left[\frac{V_{c}}{V_{c} + V_{w} + V_{a}} \right]^{2}$$

$$(3.5)$$

While referring to this equation in the body of the thesis it should be referred to as Eqn. (3.5).

6. THESIS SUBMISSION AND BINDING SPECIFICATIONS

6.1 Preparation of Research Summary

After the completion of the research work and preparation of the draft thesis when Pre Ph.D. presentation is also over successfully, a research summary is to be prepared in close contact with the thesis supervisor(s). It should begin with the title of the thesis (in Times New Roman with size 14 bold, centered), a single space gap, followed by the name and enrollment of the candidate (in Times New Roman with size 12 bold, centered) and then a single space gap followed by the title **Research Summary** (in Times New Roman with size 12 bold, centered). After a gap of a space, the text should begin on the same page (there is no need for a title page).

Like the thesis, the Research Summary may be broadly divided into 7 parts (i) Introduction including Review of Literature; (ii) Plan of work; (iii) Methodology or Materials and Methods; (iv) Results; (v) Discussion and (vi) Conclusion and directions for future research; and (vii) References.

It should be typed single line spacing, in Times New Roman with size 12 within the specified margin of the page. The total number of typed pages should not exceed 10. The use of tables, figures, equations should be absolutely minimum unless they are extremely essential. Only the essential references should appear in the text. Sections and subsections (not exactly the same as used in the main thesis) may be used to enhance the readability. Only minimal essential part of appendices and reference list should be included as part of the Research Summary.

6.2 Submission for Evaluation

- (a) The thesis and research summary should be prepared as per guidelines provided in this manual. In case of any problem, the supervisor(s) should be contacted.
- (b) The candidate should fill the checklist and sign the Certificate of Thesis Submission for Evaluation (**Annexure IV**). The Certificate should be signed and submitted in duplicate. One copy after stamping by the concerned University official with due entries will be returned to the candidate.
- (c) For evaluation purpose, a candidate for Ph D degree is required to submit
 - (i) Plagiarism free certificate is to be attached after the 'Candidate Declaration Page'.
 - (ii) Four copies of Research Summary,
 - (iii) Four hard copies of the thesis printed on single side using flexible cover of thick white art paper. The cover page should be printed as per specifications for the title page (**Annexure I**).
 - (iv) A CD with exactly identical contents in PDF format. The candidate should ensure that the CD can be opened on any system.

6.3 Final Submission

After the successful completion of *viva voce* examination and with approval of the *viva voce* board, the candidate should finalize the thesis incorporating all the suggestions made during the evaluation process by the internal and external examiners and the suggestions emerging during *viva voce* examinations.

Following should then be submitted:

- (a) Certificate of Final Thesis Submission (Annexure V) signed by the candidate and the supervisor(s) certifying that all the corrections suggested by the examiners have been incorporated, the thesis has been prepared as per guidelines, due credit to other researchers have been appropriately accorded and no part of the thesis is copied from any other source.
- (b) 3 copies of the final thesis should be printed on both the side on good quality white paper not less than 80gsm and hard bound as per specifications given in **Annexure I**. The cover page should be printed as per specifications for the title page (**Annexure I**) except that it will include month and year of final submission.
- (c) Colour Code: The colour code for the thesis will be as follows:

 Cloth bound sky blue background with impressions embossed in permanent golden colour. The side back of the thesis should also carry the title, name of candidate, enrollment number and month & year of final submission.
- (d) For electronic repository of the University, a CD with exactly identical contents as the final thesis in PDF format should also be submitted. The candidate should ensure that the CD can be opened on any system. The CD should carry the name, enrollment number and programme of the candidate.

Note: The candidate must submit the required **certificates** at the times of both the submissions (a) for evaluation and (b) final after *viva voce* examination for provisional degree certificate.

7. SIZE OF THESIS

There is no rigid restriction on the size of the thesis. However, it should not generally exceed 300 pages of the typed matter beginning from the first page of Chapter I to the last page of the last Appendix.

Ph.D. Thesis

Title of Thesis Title of Thesis Title of Thesis Title of Thesis Title of Thesis

Name of the Candidate (Enrollment No. XXXX)

Month Year

TITLE OF THESIS TITLE OF THESIS TITLE OF THESIS TITLE OF THESIS TITLE OF THESIS

Thesis Submitted
In Partial Fulfillment of the Requirements for
the Degree of

DOCTOR OF PHILOSOPHY in Subject Name

by

Name of the student

Under the Supervision of Name of Supervisor Institution



to the

FACULTY OF

IFTM UNIVERSITY, MORADABAD UTTAR PRADESH- 244102

Month, Year

CERTIFICATE

Certified that	<u>Name</u>	of	student	(enrollment	no),	S/o	or
D/o			. has carried	out the research	h work pr	esented	in
this thesis entitled "Ti	tle of The	sis	•••••	•••••	• • • • • • • • • • • • • • • • • • • •	•••••	<u></u> "
for the award of Doct	or of Philo	sophy	in (Subject)	from IFTM U	niversity,	Moradab	oad
under my/our (print on	y that is a	pplica	ble) supervis	ion. The thesis	embodies	results	of
original work, and stu	idies are	carried	l out by the	scholar himse	elf/herself	(print	the
applicable part) and th	e contents	of the	e thesis do n	ot form the ba	sis for the	e award	of
any other degree to	the candi	date	or to anybo	ody else from	this or	any otl	her
University/Institution.							
Signature				\$	Signature		
(Name of Supervisor				(Name or	f Co-Supe	rvisor)	
(Designation)				(D	esignation)	
(Address)				((Address)		
Date:							

Note: In case of only one supervisor, the sole supervisor will sign on the right side and the details on the left will not be printed. In case of three supervisors, the third one along with his/her name, designation, address will sign in the centre of the page underneath the details of the co- supervisor. The date, however, will be common to all.

ANNEXURE III

PLAGIARISM CERTIFICATE

We, Dr	(Supervisor) and Dr	(Co-supervisor)
certify that the thesis entit	led "	
		"su
bmitted by Ph.D. Scholar	(Subject:) Mr./Ms	having
Enrollment No1	nas been run through Plagiarism Check Soft	ware and the Plagiarism Percentage
is reported to be %.		
(Supervisor)		(Co-Supervisor)
((00 207 10 100)
(Scholar)		

ANNEXURE IV

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IFTM UNIVERSITY, MORADABAD

CERTIFICATE OF THESIS SUBMISSION FOR EVALUATION

(To be submitted in Duplicate)

1. Name :			
2. Enrollment No.:		• • • • • • • • • • • • • • • • • • • •	
3. Thesis title:			
		• • • • • • • • • • • • • • • • • • • •	
4. Degree for which the thesis is submitted:			
5. Faculty of the University to which the thesis	is submitted		
6. For Thesis Preparation Guide was referred	to.	□YES	□NO
7. Specifications regarding thesis format have b	peen closely followed.	□YES	□NO
8. Organization of the thesis contents is based of		□YES	□NO
9. The thesis has been prepared without resorting		☐YES	□NO
10. All sources used have been cited appropriate		YES	□NO
11. The thesis has not been submitted elsewhere	for a dograd	YES	□NO
	for a degree.		_
12. Submitted 4 soft bound copies plus one CD. 13. Submitted 4 Research Summary		☐ YES☐ YES	∐NO □NO
	(Signatur	re of the C	andidate)
	Name:		
	Enrollment No:		



IFTM UNIVERSITY, MORADABAD

CERTIFICATE OF FINAL THESIS SUBMISSION

(To be submitted in duplicate)

1. Name :		
2. Enrollment No.:		
3. Thesis title:		
4. Degree for which the thesis is submitted:		
5. Faculty (of the University to which the thesis is submitted)		
6. For Thesis Preparation Guide was referred to.	YES	□NO
7. Specifications regarding thesis format have been closely followed.	YES	□NO
8. Organization of the thesis contents is based on the guidelines.	YES	□NO
9. The thesis has been prepared without resorting to plagiarism.	YES	□NO
10. All sources used have been cited appropriately.	YES	□NO
11. The thesis has not been submitted elsewhere for a degree.	YES	□NO
12. All the corrections suggested by examiner/s have been incorporated.	YES	□NO
13. Submitted 3 hard bound copies plus one CD.	□YES	□NO
(Signature(s) of the Supervisor(s)) (Signature(s):	re of the C	
Enrollment No.:		