#### CENTRE FOR DISTANCE EDUCATION

#### **ANNA UNIVERSITY**

#### **CHENNAI 600 025**

#### GUIDELINES FOR PREPARATION OF MCA PROJECT REPORT

#### (Prescribed Format and Specification)

#### 1. GENERAL:

The guideline is intended to provide broad guidelines to the MCA candidates in the preparation of the project report. In general, the project report shall report, in an organized and scholarly fashion, an account of original work of the candidate including methodology, data analysis, interpretation and summary of findings.

#### 2. NUMBER OF COPIES TO BE SUBMITTED FOR EVALUATION: MCA:

Students should submit 5 copies of Project Report to the Study centre Coordinators through the Project In-charge of the Study centre concerned on or before the specified date. The Study centre Coordinator may distribute the copies as follows:

- 1. One copy to be signed and returned to the student
- 2. One copy to be retained for the Study Centre Library
- 3. One copy to be given to the Guide concerned
- 4. One copy to be forwarded to the External Examiner

After the Viva-voce Examination one copy of the project report signed by the External Examiner, Internal Examiner, Coordinator of Study centre to be forwarded to the Centre for Distance Education, Anna University, Chennai (Refer Annexure III). CD containing the Complete project report is also to be forwarded to the Centre for Distance Education after the Viva-voce Examination

#### 3. SIZE OF PROJECT REPORT:

The size of project report should not exceed 60 pages of typed matter reckoned from the first page of Chapter 1 to the last page of the last chapter.

#### 4. ARRANGEMENT OF CONTENTS OF PROJECT REPORT:

The sequence in which the thesis material should be arranged and bound should be as follows:

- 1. Cover Page & Title page
- 2. Bonafide Certificate
- 3. Abstract in English and Tamil
- 4. Acknowledgement
- 5. Table of Contents
- 6. List of Tables
- 7. List of Figures
- 8. List of Symbols, Abbreviations and Nom enclature (Optional)
- 9. Chapters

- 10. Appendices
- 11. References

The Tables and Figures shall be introduced in the appropriate places.

#### 5. PAGE DIMENSIONS AND MARGIN:

The dimensions of the final bound copies of the project report should be 290mm x 205mm. Standard A4 size (297mm x 210mm) paper may be used for preparing the copies. The final 5 copies of the project report (at the time of submission) should have the following page margins:

Top edge: 30 to 35 mm Bottom edge: 25 to 30 mm Left side: 35 to 40 mm Right side: 20 to 25 mm

The project report should be prepared on good quality white paper preferably not lower than 80 gsm/sq.m.

Tables and figures should conform to the margin specifications. Large size figures should be photographically or otherwise reduced to the appropriate size before insertion.

#### 6. MANUSCRIPT PREPARATION:

The candidate shall supply a typed copy of the manuscript to the guide for the purpose of approval. In the preparation of the manuscript, care should be taken to ensure that all textual matter is typewritten to the extent possible in the same format as may be required for the final project report.

Hence some of the information required for the final typing of the project report is included also in this section.

The headings of all items 2 to 11 listed in section 4 should be typed in capital letters without punctuation and centered 50mm below the top of the page. The text should commence 4 spaces below this heading. The page numbering for all items 1 to 8 should be done using lower case Roman numerals and the pages thereafter should be number ed using Arabic numerals.

- **6.1 Cover Page & Title Page** A specimen copy of the Cover page & Title page for MCA project report is given in Annexure I.
- **6.2 Bonafide Certificate** The Bonafide Certificate shall be in double line spacing using Font Style Times New Roman Font Size 12, as per the format shown in Annexure II.

The certificate shall carry the signatures of student, Guide, Project In-charge at the Study centre. The Bonafide certificate shall also carry the External Examiner's signature obtained at the time of Viva-voce.

**6.3 Abstract** - Abstract should be an essay type of narration not exceeding 600 words, outlining the problem, the methodology used for tackling it and a summary of the findings,

when typed double line spacing, Font Style Times New Roman and Font Size 12 and signed by the candidate.

- **6.4 Acknowledgement -** The acknowledgement should be brief and should not exceed one page when typed in double spacing. The candidate's signature shall be made at the bottom end above his / her name typed in capitals.
- **6.5 Table of contents** The table of contents should list all material following it as well as any material which precedes it. The title page, Bonafide Certificate and Acknowledgment will not find a place among the items listed in the Table of Contents but the age numbers in lower case Roman letters are to be accounted for them. One and a half spacing should be adopted for typing the matter under this head.
- **6.6 List of Table** The list should use exactly the same captions as they appear above the tables in the text. One and a half spacing should be adopted for typing the matter under this head.
- **6.7 List of Figures** The list should use exactly the same captions as they appear below the figures in the text. One and a half spacing should be adopted for typing the matter under this head.
- **6.8 List of Symbols, Abbreviations and Nomenclature** One and a half spacing should be adopted for typing the matter under this head. Standard symbols, abbreviations etc. should be used.
- **6.9 Chapters** The main text will be divided into several chapters and each chapter may be further divided into several divisions and sub-divisions. The contents of the Chapters are only indicative. Only Chapter titles are common.

#### **Preparation of Project Report**

Each student is expected to **submit four copies of Project Report** The following should be the contents of the report:

- o Title Sheet
- o Bonafide Certificate duly signed by the Project Guide and Project in-charge
- o Acknowledgement
- o Abstract (in Tamil and English) o

**Table of Contents** 

- o List of Tables
- o List of Figures
- o List of Abbreviations
- o Chapter 1 Introduction

Overview of the project

Literature survey

Proposed System

Objectives & Scope

Organization of the report

o Chapter 2 - Requirements specification Introduction **Overall Description** 

**Product Perspective** 

**Product Functions** 

**User Characteristics** 

**Operating Environment** 

Constraints

Specific Requirements

External Interface Requirements

**System Features** 

Data Flow Diagrams, Entity Relationship Diagrams o r

UML Diagrams, Whatever applicable

Performance Requirements

Software Quality Attributes

Chapter 3 - System Design and Test Plan

**Decomposition Description** 

Dependency Description

Detailed Design

Proposed Sampling Methods

Test plan

o Chapter 4 - Implementation and Results

Implementation

Results

o Chapter 5 - Conclusion and Future work

**Summary** 

Future Work

- o References
- o Appendixes

- \* Tables and figures in a chapter should be placed in the immediate vicinity for the reference Where they are cited.
- \* 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.
- **6.10 Appendices** -Appendices are provided to give supplementary information, which if included in the main text may serve as a distraction and cloud the central theme under discussion.
- .\* Appendices should be numbered using Arabic numerals, e.g. Appendix 1, Appendix 2, etc.
- .\* Appendices, Tables and references appearing in appendices should be numbered and referred to at appropriate places just as in the case of chapters.
- .\* Appendices shall carry the title of the work reported and the same title shall be made in the contents page also.
- **6.11 List of References** Any works of other researchers, if used either directly or indirectly,

<sup>\*</sup> Each chapter should be given an appropriate title.

the origin of the material thus referred to at appropriate places in the project report should be indicated. A paper, a monograph or a book may be designated by the name of the first author followed by the year of publication, placed inside brackets at the appropriate places in the project report should be indicated.

The listing should be typed 4 spaces below the heading "REFERENCES" in alphabetical order in single spacing left-justified. The reference material should be listed in the alphabetical order of the first author. The name of the author/authors should be immediately followed by the year and other details. A typical illustrative list given below.

**6.12 Tables and Figures** - By the word Table, is meant tabulated numerical data in the body of the project report as well as in the appendices. All other non-verbal material used in the body of the project report and appendices such as charts, graphs, maps, photographs and diagrams may be designated as figures.

- \* A table or figure including caption should be accommodated within the prescribed margin limits and appear on the page following the page where their first reference is made.
- \* Tables and figures on half page or less in length may appear on the same page along with the text. However, they should be separated from the text both above and below by triple spacing. \* All tables and figures should be prepared on the same paper or material used for the Preparation of the rest of the project report.
- \* For preparing captions, numerals, symbols or characters in the case of tables or figures, the Computer should be enclosed.
- \* Two or more small tables or figures may be grouped if necessary in a single page.
- \* Wherever possible, the entire photograph(s) may be reproduced on a full sheet of photographic paper.
- \* Photographs if any should be included in the colour Xerox form only. More than one photograph can be included in 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.

#### 7. TYPING INSTRUCTIONS

### 7.1 General

This section includes additional information for final typing of the project report. Some information given earlier under 'Manuscript preparation' shall also be referred.

The impressions on the typed/duplicated/printed copies should be black in colour.

If Computer printers are used uniformity of the font in the same project report shall be observed. 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.

One and a half 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.

Single spacing should be used for typing:

- (i) Long Tables
- (ii) Long quotations
- (iii) Foot notes
- (iv) Multilane captions
- (v) References

All quotations exceeding one line should be typed in an indented space - the indentation being 15mm from either margin.

#### 7.2 Chapters

The format for typing Chapter headings, Divisions headings and Sub-division headings are explained through the following illustrative examples. Chapter heading: CHAPTER 1 - INTRODUCTION Division heading: 1.1 OUTLINE OF PROJECT WORK Sub-division heading: 1.1.2 Literature review, as given in annexure IV

The word CHAPTER without punctuation should be centred 50m m down from the top of the page. Two spaces below, the title of the chapter should be typed centrally in capital letters. The text should commence 4 spaces below this title, the first letter of the text starting 20mm, inside from the left hand margin.

The division and sub-division captions along with their numberings should be left-justified. The typed material directly below division or sub-division heading should commence 2 spaces below it and should be offset 20mm from the left hand margin. Within a division or sub-division paragraphs are permitted. Even paragraph should commence 3 spaces below the last line of the preceding paragraph, the first letter in the paragraph being offset from the left hand margin by 20 mm.

#### 8. NUMBERING INSTRUCTIONS

#### 8.1 Page Numbering

All pages numbers (whether it be in Roman or Arabic numbers) should be typed without punctuation on the upper right hand corner 20mm from top with the last digit in line with the right hand margin. The preliminary pages of the project report (such as Title page, Acknowledgement, Table of Contents etc.) should be numbered in lower case Roman numerals. The title page will be numbered as (i) but this should not be typed. The page immediately following the title page shall be numbered (ii) and it should appear at the top right hand corner as already specified. Pages of main text, starting with Chapter 1 should be consecutively numbered using Arabic numerals.

#### 8.2 Numbering of Chapters, Divisions and Sub-Divisions

The numbering of chapters, divisions and sub-divisions should be done using Arabic numerals only and further decimal notation should be used for numbering the divisions and sub-divisions within a chapter. For example sub-division 4 under division 3 belonging to chapter 2 should be numbered as 2.3.4. The caption for the sub-division should immediately follow the number assigned to it.

Every chapter beginning with the first chapter should be serially numbered using Arabic

numerals. Appendices included should also be numbered in an identical manner starting with Appendix 1.

#### **8.3 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. Thus, if a figure in Chapter 3, happens to be the fourth then assign 3.4 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 then figure 3 in Appendix 2 will be designated as Figure A 2.3. If a table to be continued into the next page this may be done, but no line should be drawn underneath an unfinished table. The top line of the table continued into the next page should, for example read Table 2.1 (continued) placed centrally and underlined.

#### 8.4 Numbering of Equations

Equations appearing in each Chapter or Appendix should be numbered serially, the numbering commencing a fresh for each Chapter or Appendix. Thus for example, an equation appearing in Chapter 2, if it happens to be the eighth equation in that Chapter should be numbered (2.8) thus: f = k(2.8)

While referring to this equation in the body of the thesis it should be referred to as Equation (2.8).

#### 9. BINDING SPECIFICATIONS

\* Project report submitted (5 copies) for MCA should be bound using flexible cover of thick white art paper. The spine for the bound volume should be black Calico of 20mm width. The cover should be printed in black letters and the text for printing should be identical to what has been prescribed for the title page.

## **ANNEXURE I**

(A typical Specimen of Cover Page & Title Page) <Font Style Times New Roman - Bold>

## **ONLINE RAILWAY RESERVATION**

<Font Size 12> <1.5 line spacing>

By

<Font Size 12>

Student Name <Font Size 12> <Bold - Capital>

Roll No. <Font Size 12> Reg. No. <Font Size 12>

A PROJECT REPORT <Font Size 12> <Capital>

Submitted to the <Font Size 12>

## FACULTY OF INFORMATION AND COMMUNICAT ION ENGINEERING

<Font Size 12> <Bold - Capital>

in partial fulfillment for the award of the degree

of
<Font Size 12> <Italic>

## MASTER OF COMPUTER APPLICATIONS

<Font Size 12> <Bold - Capital>



## CENTRE FOR DISTANCE EDUCATION ANNA UNIVERSITY CHENNAI 600 025

<Font Size 12><Bold - Capital>

Month, Year <Font Size 12>

# ANNEXURE II

# **BONAFIDE CERTIFICAT E**

Certified that the Project report titled	is the
bonafide work of Mr. / Ms	who carried out the
work under my supervision. Certified further th	nat to the best of my knowledge the work
reported herein does not form part of any other	project report or dissertation on the basis of
which a degree or award was conferred on an	n earlier occasion on this or any other candidate.
Signature of student	Signature of Guide
Name:	Name :
(in capital letters) Roll No. :	(in capital letters)  Designation:
Reg. No.:	Address:

# ANNEXURE III \*

# **Certificate of Viva-voce-Examination**

This is to certify	that Thiru/Ms./Tmt	
(Roll No; R	Register No	) has been subjected
to Viva-voce-Examination on	(Date) at	(Time) at the
Study centre		
(Name and Address of the	ne Study centre).	
Internal Examiner		External Examiner
Name:		Name:
(in capital letters)  Designation:		(in capital letters)  Designation:
Address:		Address:
	Coordinator Study centre Name:	
	Designation : Address :	
	Date :	

- \*Note: 1. This Annexure shall be attached to the Project Report to be sent to the Director, Centre for Distance Education, Anna University, Chennai 600 025.
  - 2. A Xerox copy of the signed certificate shall be attached to the project copy retained at the Study centre library.

# ANNEXURE IV \*

# (A typical specimen of table of contents) <Font Style Times New Roman>

# TABLE OF CONTENTS

CHAPTER N	NO.	TITLE	PAGE NO.
ABSTRACT	TABLE xvi FIGURES xvii SYMBOLS xxv  INTRODUCTION  ENERAL  1.2.1 General 1.2.2  1.2.2.1 General 1.2.2.2  1.2.2.3 1.2.3	iii	
LIST OF TAE	BLE		xvi
LIST OF FIG	URES		xviii
LIST OF SYM	MBOLS		xxvii
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1.1 GENE	RAL		1
1.2			2
	1.2.1	General	5
	1.2.2		12
		1.2.2.1 General	19
		1.2.2.2	25
		1.2.2.3	29
	1.2.3		30
1.3			45
1.4			58
2.	L	ITERATURE REVIEW	69
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2.2			99
2.2			100