**Paper Code       : PRO : 604**

**Paper name      :** PROJECTS

| Examination Scheme | | |
|---|---|---|
| Internal | External | Total |
| SEMINAR | Th. (marks) | 100 (marks) |
| 30 | 70 | |

**Objective:**

The purpose behind the inclusion of this is to consolidate the concepts and practices that were imparted during the course and to serve as record of competence. It should enable the student to apply concretely in a small package the concepts gained from system analysis and design.

**Guidelines:**

This project will be carried out over a duration of three months, involving about 150 hours. Every student should do a project individually and not in a group, under the guidance of atleast one of the faculty members and/ or expert/ professional from an organization outside the college. The selected project can be either of type Model 1 or Model 2. The project Report should be submitted covering the aspects specified under Project Profile below. The project Report should have a certificate from the College stating it to be a bonafide work of the student that has not been submitted for any other examination.

**Project Profile:**

**Model 1:**

1. The topic for the project can be any sub-system of a system software or tool or any scientific or a fairly complex algorithmic situation.
2. The aim of this type is to highlight the abilities of algorithmic formulation, program and data flow representation, modular programming, optimized code preparation, systematic documentation and other associated aspects of software engineering.
3. The assessment would be through the Project report and Viva. The former should portray the following:

- Programming style, structured design, minimum compiling and high cohesion.
- Good commenting and annotating of the code and flow of representation such that meaningful code with good readability and case of maintenance, results.
- Design specifications, depicting the method adopted and giving a simple data dictionary for each data, to cover name, type and validity aspects.
- Test case samples, enough in number to adequately cover the possible chances of common errors
- User manual

<u>**Model 2:**</u>

This model can be of a typical business application. The aim of this type id to highlight the stages involved in a typical business oriented project development though on a miniature scale and simulated environment. The appropriate use of DBMS/RDBMS towards any business application along with adequate level system analysis and structured design and development of specific tools/ products would be underlying activity in preparing this project.

The emphasis should be on selecting a system/ sub-system which shows the DBMS and System Analysis aspects to a greater degree. Any small and simple business system may be selected although candidates are advised to use their knowledge and creativity to select typical and intelligent applications, rather than run-of-the-mule themes such as simple pay-roll calculation or Issue return portion of an inventory scheme. The evaluation stage would give due weightage for the theme selection, problem analysis, fact finding techniques and initial design which is as close to real life business situations as possible.

The project may be carried out in any of the X base family products which is equivalent to Dbase FoxPro or in COBOL. The Code can be generated out of fourth GL. Interface like Screen Builder and Report Generator or can be totally hand-coded or a combination of both. The documentation need not contain the code generated by these applications but only that written by the candidate.

The assessment would be through the Project Report and Viva. The former should portray the following.

Requirements leading to the project, those which were the result of System Analysis

The design aspects of DBMS oriented documentation which describes the structure and organization of the database well annotated source code, supplemented documentation,  which can serve as a Data Analysis and Flow description.

A simple Data Dictionary of the elements, which form the structure, the number of tables/ files which make up the DBMS should not be less than three.

- Details about I/O screens and facilities for onscreen query,  printed oriented Reports and built in house keeping routines which help disk management and file integrity are to be included to a limited extent.

- Details of Acceptance Tests which should be in adequate number and should include error messages.

- User manual

**Viva-Voce**:

The viva-voce will be conducted by an external examiner appointed by the University and an internal examiner from the College. Other members of the faculty and students may be present. It will be of a duration of about 15 to 20 minutes. The logic, analysis and design aspects relevant to the project

mentioned under assessment would be the main subject matter for the viva. However the general proficiency of the candidate in the selected software platform should also be tested.

**Documentation**

System Overview will have the following sections:

1. Application area: e.g. Production/ Inventory/Finance/Marketing/Human Resource Management/Library/Training/Service sector/System Level Programming etc.

2. System/Subsystem: e.g. Invoicing and Accounts Receivables, Purchase and Accounts Payables, Budget and Accounts Variance analysis, Production and Sales Monitoring, Material Requirement Planning, Hotel management/Hospital Management/Specific Software utility.

3. End user (s): Finance Controller, Marketing Manager, Production Manager, Personnel Department, School or College or Hospital administrative staff, etc.

4. Analysis and description of the system and the specific gains from computerization.

5. Description of the various modules.

6. Performance criteria for the proposed system: e.g., volume of transactions (Data handling), control aspects, timeliness, archival.

7. Need for review: Deficiencies and future enhancements.

**Data Dictionary**:

1. This should give catalogue of the data elements used in the system/subsystem

developed. The following are the details required: Write NA where Not

Applicable.

- Data name

- Aliases, if any:

- Length (size)

- Type (numeric, alpha, binary, etc.)

- Validity criterion (minima, maxima, etc.)

- Default value, if any.

- Whether related to other data items

- Where used in the program reference to data structure/file/procedure/modules.

**User Manual:**

It may include chapters like the one suggested below:

1. Installation

2. Hardware requirements

3. System requirements

4. Installation procedure, including security aspects like passwords, protection, backups, controls, etc.

5. Menu choices and their actions-screen formats

6. Error messages

7. Output

8. A sample test case

**Distribution of marks:**

**Practical (Project Work)** : 80 marks

**Internal assessment** : 20 marks

**FORMAT and Others**

**NAGALAND UNIVERSITY :: HQ - LUMAMI**


**FORMAT FOR PREPARATION OF PROJECT REPORT FOR BCA**


1. **ARRANGEMENT OF CONTENTS:**

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


   1. Cover Page & Title Page
   2. Bonafide Certificate
   3. Abstract
   4. Table of Contents
   5. List of Tables
   6. List of Figures
   7. List of Symbols, Abbreviations and Nomenclature
   8. Chapters
   9. Appendices
   10. References

   The table and figures shall be introduced in the appropriate places.

2. **PAGE DIMENSION AND BINDING SPECIFICATIONS:**

   The dimension of the project report should be in A4 size. The project report should be bound using flexible cover of the thick white art paper. The cover should be **printed in black letters** and the text for printing should be identical.

3. **PREPARATION FORMAT:**

3.1 **Cover Page & Title Page** – A specimen copy of the Cover page & Title page of the project report are given in **Appendix 1.**

3.2 **Bonafide Certificate –** The Bonafide Certificate shall be in double line spacing using Font Style Times New Roman and Font Size 14, as per the format in **Appendix 2.**

   The certificate shall carry the supervisor's signature and shall be followed by the supervisor's name, academic designation (not any other responsibilities of administrative nature), department and full address of the institution where the

supervisor has guided the student. The term **'SUPERVISOR'** must be typed in capital letters between the supervisor's name and academic designation.

**3.3**   **Abstract –** Abstract should be one page synopsis of the project report typed double line spacing, Font Style Times New Roman and Font Size 14.

**3.4**   **Table of Contents –** The table of contents should list all material following it as well as any material which precedes it. The title page and Bonafide Certificate will not find a place among the items listed in the Table of Contents but the page numbers of which are in lower case Roman letters. One and a half spacing should be adopted for typing the matter under this head. A specimen copy of the Table of Contents of the project report is given in **Appendix 3.**

**3.5**   **List of Tables –** 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.

**3.6**   **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.

**3.7**   **List of Symbols, Abbreviations and Nomenclature** – One and a half spacing should be adopted or typing the matter under this head. Standard symbols, abbreviations etc. should be used.

**3.8**   **Chapters**   – The chapters may be broadly divided into 3 parts  (i)  Introductory chapter,   (ii) Chapters developing the main theme of the project work  (iii) and Conclusion.

The main text will be divided into several chapters and each chapter may be further divided into several divisions and sub-divisions.

❖      Each chapter should be given an appropriate title.

❖      Tables and figures in a chapter should be placed in the immediate vicinity of 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.

**3.9**   **Appendices** – Appendices are provided to give supplementary information, which is included in the main text may serve as a distraction and cloud the central theme.

- 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.

**3.10**   **List of References** –The listing of references 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 relates to the citation example quoted above.

**REFERENCES**

1.   Ariponnammal, S. and Natarajan, S. (1994) 'Transport Phonomena of Sm Sel – X Asx', Pramana – Journal of Physics Vol.42, No.1, pp.421-425.

2.   Barnard, R.W. and Kellogg, C. (1980) 'Applications of Convolution Operators to Problems in Univalent Function Theory', Michigan Mach, J., Vol.27, pp.81–94.

3.   Shin, K.G. and Mckay, N.D. (1984) 'Open Loop Minimum Time Control of Mechanical Manipulations and its Applications', Proc.Amer.Contr.Conf., San Diego, CA, pp. 1231-1236.

**3.10.1 Table 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 materials used in the body of the project work and appendices such as charts, graphs, maps, photographs and diagrams may be designated as figures.

**4.**   **TYPING INSTRUCTIONS:**

The impression on the typed copies should be black in colour.
One and a half spacing should be used for typing the general text. The general text shall be typed in the Font style 'Calibri' and Font size 14.
* * * * *

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

# TITLE OF PROJECT REPORT

<Font Size 18><1.5 line spacing>

## A PROJECT REPORT
<Font Size 14>

***Submitted by***
<Font Size 14><Italic>

## NAME OF THE CANDIDATE(S)
<Font Size 16>

***in partial fulfillment for the award of the degree***

***of***

<Font Size 14><1.5 line spacing><Italic>

## NAME OF THE DEGREE
<Font Size 16>

**IN**

BRANCH OF STUDY
<Font Size 14>

## NAME OF THE COLLEGE
<Font Size 14>

## NAGALAND UNIVERSITY : HQ: LUMAMI

<Font Size 16><1.5 line spacing>

MONTH & YEAR
<Font Size 14>

**SPECIMEN**

# SOME PERFORMANCE ASPECTS CONSIDERATIONS OF A CLASS OF ARTIFICIAL NEURAL NETWORK

**A PROJECT REPORT**

*Submitted by*

**TIANARO**

*in partial fulfillment for the award of the degree*

*of*

**BACHELOR OF COMPUTER APPLICATION**

*in*

**LIBRARY MANAGEMENT SYSTEM**

**REGIONAL INSTITUTE OF E-LEARNING & INFORMATION TECHNOLOGY, KOHIMA**

**NAGALAND UNIVERSITY:: LUMAMI**

**MAY 2010**

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**APPENDIX 2**
(A typical specimen of Bonafide Certificate)
<Font Style Times New Roman>


# NAGALAND UNIVERSITY : LUMAMI
<Font Style Times New Roman – size -18>


## BONAFIDE CERTIFICATE
<Font Style Times New Roman – size -16>

<Font Style Times New Roman – size -14>

</div>

Certified that this project report **"……….TITLE OF THE PROJECT…………….."**

is the bonafide work of **"…………..NAME OF THE CANDIDATE(S)…………"**

who carried out the project work under my supervision.


<<Signature of the Head of the Department>>  <<Signature of the Supervisor>>
 **SIGNATURE**           **SIGNATURE**

 <<Name>>            <<Name>>
 **HEAD OF THE DEPARTMENT**     **SUPERVISOR**

             <<Academic Designation>>

<<Department>>         <<Department>>

<<Full address of the Dept & College >>  <<Full address of the Dept & College >>

<div align="center">

**APPENDIX 3**
(A typical specimen of table of contents)
<Font Style Times New Roman>

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# TABLE OF CONTENTS