COMPONENTS OF RESEARCH PROPOSAL/ SYNOPSIS (Format for preparing proposal)

1) Title of the Proposed Research Study for Ph. D:

Give proposed research title

2) Introduction for the Proposed Study:

Give a broad description of the topic. Explain important concepts in the study.

3) Review of Literature:

Describe briefly at least ten reviews of related researches done in your topic during the last 10-15 years.

4) Statement of the Problem: State the rationale for carrying out the study. In other words, describe the gaps in information and work regarding the problem and state the justification for conducting the study.

5) Objectives: Delineate a few objectives of study

General objective is a broad area of study. General objective can be broken into three to four specific objectives based on various aspects of the study.

- **6) Hypothesis:** Candidates need not propose Hypothesis if not relevant to his/her field of study (area/ discipline).
- 7) **Methodology:** The methodology should have the following components:
 - (i) Type of study
 - (ii) Area of study
 - (iii) Universe and Sample
 - (iv) Data Collection & proposed tools (specify details)
 - (v) Data Analysis & Techniques to be applied (Specify details)
- 8) **Pilot Study:** Explain proposed Pilot Study to be undertaken for testing tools, techniques etc. (if required)
- 9) Limitations of the Study: Mention the limitation that you will face in carrying out research.
- **10) Significance of the Study:** Explain the importance of research study you have proposed and its significance in the context of the area/ field of research proposal.

11) Bibliography

Selected list of references should be mentioned.

SUPPORT FORMATS & DETAILS

TITLE OF THE THESIS

(It must be bold and in capital letters. It must not be put in inverted commas)

A

SYNOPSIS

SUBMITTED TO THE

RAFFLES UNIVERSITY,

FOR THE DEGREE

OF

DOCTOR OF PHILOSOPHY

B. Second page-Information Page

(i) Title :

(ii) Name of scholar :

(iii) Admission Number. :

(iv) Subject :

(v) Proposed Research Supervisor name :

(vi) Research Supervisor Designation :

(v) School Name :

Signature of student

Signature and seal of guide

Contents of Synopsis

| | Index |
|-----|---|
| | Introduction- Write about your topic- maximum-2-3 pages |
| | Review of literature- writes previous work, which have done by other researcher related |
| | to your topic, about any experiment which will you carried during your research work |
| | Maximum -7-8 Pages |
| [A] | Il references must write in text and give detail in reference chapter. You are giving references as |
| [1] | ,[2] in text or superscript (e.g. Text ¹) and give reference detail in serial from 1, 2, 3 e.g. |
| Az | omethine ylides[1] (or Azomethine ylides ¹) which from a classic example of 1,3-dipole have been |
| use | ed as a versatile synthon in organic synthesis[2](or organic synthesis ²). You may use Alphabetic |
| | rm also. Then write in text (Adams et al 1998). More than 30 latest references must be included synopsis] |
| | Objectives: - write objectives in point wise, like-A B C |
| П | Work plan & Methodology: |
| | Hypothesis (if Applicable) |
| | Methodology : - According to your topic & objectives, decide experiments and write methods of those experiments (step wise) (maximum-3-4 pages). Write references with every experiment, |
| | Method 1 (Reference) 2 (Reference) |
| | Work plan:- plan about experiments time wise, after every six month. About two years |
| | References:- |
| 1. | Levitt J. (1980), Responses of plants to environmental stresses. Vol. I. <i>In: Chilling freezing, and high temperature stress</i> . London, New York, Toronto: Academic Press. 23 29 |

2. Alamillo J. M. and Bartels D., (2001), Effects of desiccation on photosynthesis pigments and the ELIP like dsp-22 protein complexes in the resurrection plant *Craterostigma*

plantagineum. Plant Sci. 160, 1161–1170

Bewley J. D. and Pacey J., (1978), Desiccation-induced Ultrastructural changes in drought-sensitive and drought-tolerant plants. *In: Dry biological systems*, J. H. Crowe and J. S. Clegg (eds.), Academic Press, New York. 53–73

OR

- 2. Chimmanamada U. D, Kumar R., Pandey B. and Kumar P. (1995), Catalytic halogenation of selected organic compounds mimicking vanadate-dependent marine metalloenzymes, *J. Chem. Soc.*, *Chem. Commun.*, 3, 611-612.
- 3. Tsuge O. and Kanemasa S.; (1989), Recent Advances in Azomethine ylide Chemistry in *Advances in Heterocyclic Chemistry*; Ed. A. Katritzky, 45, 232.
- 4. Huang D., Wang H., Xue F., Guan H., Li L., Peng X, and Shi Y. (2011) Enantioselective Bromocyclization of Olefins Catalyzed by Chiral Phosphoric Acid, *Org. Lett.*, 13 (24), 6350.

Note: - The researcher would be required to adhere to the following standards for Submission of Ph. D. Synopsis:

- 1. 1 Sides printing
- 2. 12 font sized for English typing, Printing either in Times New Roman or Arial font.
- 3. 14 font sized for Hindi typing, Printing in Kruti Dev 010 font.
- 4. Margins:-

Left: 1.5 inchesRight: 1.0 inchesTop: 1.0 inchesBottom: 1.0 inches

- Line Space: 1.5 inches

5. Page size A4