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**CAT – PhD Thesis Proposal Document**

The CAT exam consists of two components: a document describing the student's proposed research with experimental plan and an oral defence of the document. The written document consists of a proposal that includes the specific aims of the student's proposed research, the scientific background and significance of the proposed study, a summary of preliminary results, a detailed description of the experiments planned together with their rationale and expected outcomes, and a list of all references cited in the text.

Because the primary purpose of the CAT exam is to test the student's competence in their general area of study, a satisfactory performance requires that the student demonstrates a comprehensive and in-depth knowledge of the concepts and methodologies of the disciplines comprising the major area of research interest. The student will also be expected to demonstrate an authoritative and up-to-date grasp of the literature in their area of specialization and to be able to discuss in detail the experimental design, rationale, and methodology used in their proposed research program.

There are no specific formatting, size requirements or limitations for the documents. It should contain the following elements:

**1. Cover Page**

* Title of the project
* Name of the PhD Student
* Names of all committee members – indicate the name of the primary supervisor
* Date of the CAT exam

**2. Abstract**

A brief and succinct description of the proposed work in less than 500 words

**3. Introduction and Research Question**

This is where you introduce and describe the work you intend to do. Before you start writing this section ask yourself the following questions:

1. What is the context of the work?

2. What are the main problems, concerns, etc. of the domain area?

3. What do you intend to do?

4. Why is the work important?

The research question (and sub questions) is an outgrowth of these questions and the rest of the document (literature review and methodology) should follow from the issues that arise from the need to address this question (and sub questions).

*Size? The work can probably be summarized in about 5 pages*

**4. State of the Art / Literature Review**

In this section you should describe in detail the background leading to the present proposal, critically evaluate existing knowledge, and specifically identify the gaps in knowledge that you work intends to fill.

*Size? A detailed review should consume 15-20 pages at the very least*

**5. Proposed Methodology**

In this section you describe how you are going to do the work required to answer your research questions.

Describe the research design and the procedures to be used to accomplish the work. Include how the data will be collected, analyzed, and interpreted. Describe any new methodology and its advantage over existing methodologies. Discuss the potential difficulties and limitations of the proposed procedures and alternative approaches to achieve the aims.

*Size? 5-10 pages would probably do the job*

**6. Timeline**

A tentative yet detailed schedule for accomplishing all the tasks described in the proposed methodology section.

**7. References**

A complete and comprehensive listing of all the works cited in this document in APA format.

**8. Publications**

A list of publications of the candidate, if any, describing his/her contribution and the contribution of each of the authors.

For any further information, please contact the PhD program coordinator.