# SYMBIOSIS INTERNAITONAL (DEEMED UNIVERSITY) PhD ENTRANCE TEST

# The Syllabus of Research Methodology

### 1. Required (Compulsory) Topics

#### • Overview of Research:

Meaning, purpose, significance of ethical conduct in research, Classification of Research based on its purpose (Basic, Applied, Evaluation and Action Research)

#### • Scientific Thinking:

Types of reasoning, Critical Thinking, Importance of existing knowledgebase (research literature)

#### • Elements of Research:

Concepts, Constructs, Definitions – Theoretical and Operational, Theory, Literature Review and its importance, Models, research questions and objectives, research design and methodology.

## 2. Topics with a Choice (Elective)

#### • Quantitative Research Methods:

Variables, Conjecture, Hypothesis, Measurement, Types of data and scales, Sample, Sampling techniques, Probability, Probability Distributions, Hypothesis Testing, Level of Significance and Confidence Interval, t-test, ANOVA, Correlation, Regression Analysis

OR

#### • Qualitative Research Method:

Types of approaches – Narrative, phenomenological, grounded theory, ethnographic, case study, Data Sources: Interviews, Focus groups, observations, approaches to analysis of qualitative data –coding, content analysis