

Ph.D. - July 2013

PART - I

METHODOLOGY EXAMINATION

PAPER I - RESEARCH METHODOLOGY

Time: Three Hours

Maximum: 100 marks

Answer ALL questions

I. Essays:

(2 x 20 = 40)

1. (a) Explain the following research designs: Descriptive Studies and Causal Studies.
(b) Discuss in detail the essential components of a research proposal.
2. (a) Explain what is meant by 'Multivariate Analysis'.
(b) Explain in detail Partial Least Square Regression.
(c) Explain what is Meta Analysis, the steps of Meta Analysis, the methods and assumptions of Meta Analysis.

II. Short notes:

(10 x 6 = 60)

1. Define the term Validity. Discuss the different forms of Validity.
2. Discuss the Vancouver System of referencing, its advantages and disadvantages.
3. Explain the term "Plagiarism".
4. Distinguish between Parametric and Non Parametric Tests.
What are the assumptions of the Parametric Tests?
5. Discuss computer aided search of literature.
6. What do you understand by the term, "Peer Review"?
Discuss the "Simple Blind" and "Double blind" Peer Review methods.
7. What is Citation Analysis? How is it used as a tool for research evaluation.
8. Enumerate the Principles, laid down by ICMR that is to be followed when using human beings for research. Give the details pertaining to Principles of Informed Consent and the Principles of Competence.
9. What are Intellectual Property Rights? Discuss ownership of Patents and their transferability.
10. Distinguish between "Accuracy" and "Precision".

THE TAMILNADU DR. M.G.R. MEDICAL UNIVERSITY, CHENNAI - 32

Ph.D. - January 2014

PART - I

METHODOLOGY EXAMINATION

PAPER I - RESEARCH METHODOLOGY

Time: Three Hours

Maximum: 100 marks

Answer ALL questions

I. Essays:

(2 x 20 = 40)

1. Discuss various data collection methods with suitable examples.
2. Define Research, list the characteristics of true experimental designs and explain the various experimental designs with examples.

II. Short notes:

(10 x 6 = 60)

1. Non-probability sampling techniques.
2. Need for research ethics.
3. Student T test.
4. Impact factor.
5. Dissemination and Utilization of research findings.
6. Kaplan Meir Analysis.
7. Copyright and Royalty.
8. Components of Research Proposal.
9. Variables & Hypothesis.
10. Significance of Research in Health care.

THE TAMILNADU DR. M.G.R. MEDICAL UNIVERSITY, CHENNAI - 32

Ph.D. - July 2014

PART - I

METHODOLOGY EXAMINATION

PAPER I - RESEARCH METHODOLOGY

Time: Three Hours

Maximum: 100 marks

Answer ALL questions

I. Essays:

(2 x 20 = 40)

1. Explain the steps of research process with examples.
2. Discuss the types of qualitative research design.

II. Short notes:

(10 x 6 = 60)

1. Research Hypothesis.
2. Ethics of Research.
3. Computer application in research.
4. Probability sampling techniques.
5. Presentation of data.
6. T-test.
7. Correlation coefficient.
8. Multivariate analysis.
9. Parametric and non-parametric tests.
10. Reference writing in Vancouver style.

Ph.D. - January 2015

PART - I

METHODOLOGY EXAMINATION

PAPER I - RESEARCH METHODOLOGY

Time: Three Hours

Maximum: 100 marks

Answer ALL questions

I. Essays:

(2 x 20 = 40)

1. As a researcher you are approached by an NGO to identify the problem of Non Communicable disease in the 10 villages covered by them. Frame a project proposal to address the same.
2. List the Quantitative research designs and discuss in detail the experimental designs using suitable examples.

II. Short notes:

(10 x 6 = 60)

1. Meta Analysis.
2. Data presentation.
3. Randomization.
4. Steps in research process.
5. Review of Literature.
6. Data Collection procedure.
7. Ethnography design.
8. ICMR Ethical guidelines.
9. Impact factor.
10. Referencing styles – Vancouver.

THE TAMILNADU DR. M.G.R. MEDICAL UNIVERSITY, CHENNAI - 32

Ph.D. - July 2015

PART - I

METHODOLOGY EXAMINATION

PAPER I - RESEARCH METHODOLOGY

Time: Three Hours

Maximum: 100 marks

Answer ALL questions

I. Essays:

(2 x 20 = 40)

1. Discuss the types of sampling using suitable examples.
2. Describe in detail the logical format for writing a research work.

II. Short notes:

(10 x 6 = 60)

1. Correlation and Regression.
2. Data collection methods.
3. Incidence and prevalence.
4. Impact factor.
5. Software for data analysis.
6. RCT.
7. Plagiarism.
8. Phenomenology.
9. Sample size - Calculation.
10. Non-experimental designs.

THE TAMILNADU DR. M.G.R. MEDICAL UNIVERSITY, CHENNAI - 32

Ph.D. - January 2016

PART - I

METHODOLOGY EXAMINATION

PAPER I - RESEARCH METHODOLOGY

Time: Three Hours

Maximum: 100 marks

Answer ALL questions

I. Essays:

(2 x 20 = 40)

1. You are interested in identifying the reasons for and factors influencing non-compliance in the patients diagnosed to be HIV +ve. Write a detailed project proposal highlighting the research design including the ethical consensus to be solved.
2. List the sampling methods and discuss in detail the random sampling method.

II. Short notes:

(10 x 6 = 60)

1. Literature Search.
2. ICMR guidelines for ethics.
3. Hypothesis.
4. Focus groups.
5. Tests of significance.
6. Plagiarism.
7. Steps in research process.
8. Institutional Review Board.
9. Characteristics of Scientific writing.
10. Type I and Type II errors.

Ph.D. - July 2016

PART - I

METHODOLOGY EXAMINATION

PAPER I - RESEARCH METHODOLOGY

Time: Three Hours

Maximum: 100 marks

Answer ALL questions

I. Essays:

(2 x 20 = 40)

1. Write in detail about the essential components of good research proposal and what are the factors affecting the research design?
2. List the data collection tools used in quantitative designs and write in detail about questionnaire.

II. Short notes:

(10 x 6 = 60)

1. Systemic review.
2. Ethical principles.
3. Ethnography.
4. Sample size calculation.
5. Non parametric tests / analysis.
6. Impact factor.
7. Research report.
8. APA style of Referencing.
9. Knowledge dissemination.
10. Copy right.

Ph.D. - January 2017

PART - I

METHODOLOGY EXAMINATION

PAPER I - RESEARCH METHODOLOGY

Time: Three Hours

Maximum: 100 marks

Answer ALL questions

I. Essays:

(2 x 20 = 40)

1. As a researcher you are asked to evaluate an intervention to address the problem of obesity among adolescents. Write a detailed project proposal highlighting the research design and methods.
2. Describe the characteristics and logical format for writing a research thesis and research papers.

II. Short notes:

(10 x 6 = 60)

1. Functions of Library.
2. Citation Index.
3. Methods of illustrations.
4. Student T test.
5. Kaplan Meir Analysis.
6. Computers in scientific research.
7. Clinical trial registration.
8. Royalty.
9. Types of Research.
10. Copy right.

Ph.D. - July 2017

PART - I

METHODOLOGY EXAMINATION

PAPER I - RESEARCH METHODOLOGY

Time: Three Hours

Maximum: 100 marks

Answer ALL questions

I. Essays:

(2 x 20 = 40)

1. Explain regression and correlation in clinical studies with appropriate examples.
2. Frame a hypothesis and design a research work to test association of "Protein-A" in the progression of a Diabetes Mellitus to its complications.

II. Short notes:

(10 x 6 = 60)

1. What is scientific research and write in brief about ethics involved?
2. Write in brief about (a) Mean (b) median and (c) mode.
3. Explain in brief about skewness and kurtosis.
4. Explain the types of errors with example.
5. Explain standard deviation and standard error mean.
6. What is student t-Test and explain its importance.
7. What is randomization and how do you randomize subjects for clinical trials?
8. Explain in brief about impact factor and citation index.
9. What are the features that are essential for an abstract?
10. How do you make an effective illustration?

Ph.D. - January 2018

PART - I

METHODOLOGY EXAMINATION

PAPER I - RESEARCH METHODOLOGY

Time: Three Hours

Maximum: 100 marks

Answer ALL questions

I. Essays:

(2 x 20 = 40)

1. Explain the following research designs:
 - (a) Descriptive Studies and Casual Studies.
 - (b) Discuss in detail the essential components of a research proposal.
2. Discuss various data collection methods with suitable examples.

II. Short notes:

(10 x 6 = 60)

1. Computer application in research.
2. Research hypothesis.
3. Reference writing in Vancouver style.
4. Parametric and nonparametric test.
5. Randomization.
6. RCT.
7. Incidence and prevalence.
8. Non experimental designs.
9. Focus groups.
10. Type I and Type II errors.

Ph.D. - July 2018

PART - I

METHODOLOGY EXAMINATION

PAPER I - RESEARCH METHODOLOGY

Time: Three Hours

Maximum: 100 marks

Answer ALL questions

I. Essays: (2 x 20 = 40)

1. Explain mean, standard deviation and coefficient of variation in medical practice with appropriate examples.
2. Outline the general principles to be followed in designing any research involving human subjects. Indicate the format to be followed in writing up a research proposal and the review procedures to be undertaken before initiating the research proposal.

II. Short notes: (10 x 6 = 60)

1. How should a hypothesis be framed?
2. Describe the common software used for analysis of data.
3. Explain how a sample size is calculated.
4. Describe the effective presentation of data through diagrams and graphs.
5. What are the phases involved in a clinical trials?
6. Explain the types of errors with examples.
7. Briefly describe impact factor and citation index.
8. What is plagiarism? Describe methods to avoid plagiarism.
9. What are the applications of computers in medical practice?
10. Describe the need for randomization with an appropriate clinical example.

THE TAMILNADU DR. M.G.R. MEDICAL UNIVERSITY, CHENNAI-32

Ph.D. – January 2019

PART - I

METHODOLOGY EXAMINATION

PAPER I – RESEARCH METHODOLOGY

Time: Three Hours

Maximum: 100 marks

Answer ALL questions

I. Essays:

(2 x 20 = 40)

1. As a researcher interested in dengue, you are required to write a project proposal on seroprevalence of dengue in your city. Outline your project proposal highlighting the research design and methods.
2. Explain how student's T-test and ANOVA are used with appropriate examples.

II. Short notes:

(10 x 6 = 60)

1. Describe the essential features required in an abstract.
2. Briefly explain the principles involved in conducting animal experiments.
3. Describe clinical trial registration in India.
4. Write briefly on intellectual property rights.
5. Describe the different types of clinical research?
6. Describe how data is collected and classified.
7. Describe the steps involved in conducting a meta-analysis.
8. Describe the principles in compensation for participation in clinical trials.
9. Define the common measures of central tendency for data set.
10. Chi square test.

THE TAMIL NADU DR.M.G.R. MEDICAL UNIVERSITY, CHENNAI-32

Ph.D. - July 2019

PART - I

METHODOLOGY EXAMINATION

PAPER I – RESEARCH METHODOLOGY

Time: Three Hours

Maximum: 100 marks

Answer ALL questions

I. Essays:

(2 x 20 = 40)

1. (a) Outline the key components of Research Protocol.

(b) Discuss ethical issues on Research involving HIV +ve, mentally ill patients and other vulnerable groups.
2. Classify the quantitative research designs and discuss in detail the experimental design using suitable examples.

II. Short notes:

(10 x 6 = 60)

1. Advantages of qualitative study.
2. Intellectual property rights.
3. Impact factor.
4. Mean, mode, median and standard deviation.
5. Types of Data analysis.
6. Art of writing an abstract.
7. Predatory journals.
8. Literature search.
9. GCP
10. Chi square test.
