

[LN 1018]

OCTOBER 2018

Sub. Code: 1022

M. Phil CLINICAL PSYCHOLOGY EXAMS
(Candidate admitted from 2017-2018 onwards)

FIRST YEAR

PAPER II – STATISTICS AND RESEARCH METHODOLOGY

Q.P. Code : 151022

Time : Three hours

Maximum : 70 Marks

I. Elaborate on: (1 x 20 = 20)

1. Deciding Sample Size for the Psychological studies.

II. Write notes on: (2 x 10 = 20)

1. Multivariate Analysis.
2. MANOVA.

III. Write notes on: (6 x 5 = 30)

1. Measures of Dispersion.
2. Logistic Regression.
3. Completely randomized design.
4. Non-Parametric tests.
5. Normal distribution.
6. Multistage sampling.

[LO 0519]

MAY 2019

Sub. Code: 1022

M. Phil CLINICAL PSYCHOLOGY EXAMS
(Candidate admitted from 2017-2018 onwards)

FIRST YEAR

PAPER II – STATISTICS AND RESEARCH METHODOLOGY

Q.P. Code : 151022

Time : Three hours

Maximum : 70 Marks

I. Elaborate on:

(1 x 20 = 20)

1. a) Define Correlation and explain its type with example.
- b) Difference between Correlation and Regression.

II. Write notes on:

(2 x 10 = 20)

1. Two way ANOVA.
2. a) Standard error and confidence interval.
- b) Determination of Sampling Size for comparing two means.

III. Write notes on:

(6 x 5 = 30)

1. Hypothesis.
2. Type I and Type II errors.
3. Measures of central tendency.
4. Logistic Regression.
5. Non parametric test for two sample test.
6. Randomized Block design.

[LP 1019]

OCTOBER 2019

Sub. Code: 1022

M. Phil CLINICAL PSYCHOLOGY EXAMS
(Candidate admitted from 2017-2018 onwards)

FIRST YEAR

PAPER II – STATISTICS AND RESEARCH METHODOLOGY

Q.P. Code : 151022

Time : Three hours

Maximum : 70 Marks

I. Elaborate on: (1 x 20 = 20)

1. a) Explain briefly about steps involved in testing of hypothesis.
- b) Uses of statistical packages.

II. Write notes on: (2 x 10 = 20)

1. Prospective and Retrospective studies.
2. Correlation.

III. Write notes on: (6 x 5 = 30)

1. Distinguish between Parametric and Non Parametric Methods.
2. Probability sampling techniques.
3. Factorial Design.
4. Reliability.
5. Repeated Measures of ANOVA.
6. Normal distribution.

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[AHS 0321]

MARCH 2021

Sub. Code: 1022

(OCTOBER 2020 EXAM SESSION)

M. Phil. CLINICAL PSYCHOLOGY

FIRST YEAR (From 2017-2018 onwards)

PAPER II – STATISTICS AND RESEARCH METHODOLOGY

Q.P. Code : 151022

Time: Three hours

Answer ALL Questions

Maximum: 100 Marks

I. Elaborate on:

(1 x 20 = 20)

1. Members of a random sample of 12 male students from a rural high school and an independent random sample of 16 male students from an urban high school were given a test to measure their level of mental health. The level of mental health scores of high school boys are given below.

Urban	35	26	27	21	27	38	23	25	25	27	45	46	33	26	46	41
Rural	29	50	43	22	42	47	42	32	50	37	34	31				

To determine if we can conclude that there is a difference, we perform a hypothesis test that makes use of the median test. Suppose we choose a 5% level of significance. (Table value: Level of significance at 5% is 3.841)

II. Write notes on:

(2 x 10 = 20)

1. Describe the applications of Receiver Operating Characteristic Curve (ROC) in diagnostic test studies.
2. Explain simple effect in a 2^2 factorial experiment.

III. Write notes on:

(6 x 5 = 30)

1. Write different types of events with an example.
2. Distinguish between correlation and regression.
3. What is Cronbach's alpha? How to interpret it?
4. Explain the principle of matching.
5. Write about significance level, power and effect size in sample size determination.
6. Explain the concept of censoring in survival analysis.

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[AHS 0921]

**SEPTEMBER 2021
(MAY 2021 EXAM SESSION)**

Sub. Code: 1022

**M. Phil. CLINICAL PSYCHOLOGY
FIRST YEAR (From 2017-2018 onwards)
PAPER II – STATISTICS AND RESEARCH METHODOLOGY
*Q.P. Code : 151022***

Time: Three hours

Answer ALL Questions

Maximum: 70 Marks

I. Elaborate on:

(1 x 20 = 20)

1. The following measurements show the respective IQscores of 10 fathers and their eldest sons.

Father's IQ	67	63	66	71	69	65	62	70	61	72
Son's IQ	68	66	65	70	69	67	64	71	60	63

- a) Find regression line of son's IQ on father's IQ.
b) Estimate the IQ of son for the given IQ of father as 74.

II. Write notes on:

(2 x 10 = 20)

1. What is meaning of skewness? Give different formulae for measuring skewness and interpret its value.
2. Explain the concept of confounding and interaction.

III. Write notes on:

(6 x 5 = 30)

1. Briefly explain four types of data and give examples.
2. Discuss proportional allocation in stratified sampling.
3. Distinguish between non-randomized and randomized test.
4. Write a test procedure of Mc Nemar's Chi-Square test?
5. What are advantages of R language and compare with SPSS?
6. Briefly explain about Kaplan-Meier estimator.

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[AHS 0222]

**FEBRUARY 2022
(OCTOBER 2021 EXAM SESSION)**

Sub. Code: 1022

**M. Phil. CLINICAL PSYCHOLOGY
FIRST YEAR (From 2017-2018 onwards)
PAPER II – STATISTICS AND RESEARCH METHODOLOGY
Q.P. Code : 151022**

Time: Three hours

Answer ALL Questions

Maximum: 70 Marks

I. Elaborate on:

(1 x 20 = 20)

1. a) Explain in detail characteristics and criteria of a good research.
b) Non Sampling Errors in research.

II. Write notes on:

(2 x 10 = 20)

1. Briefly explain the concept “*correlation does not imply causation*” with suitable example.
2. Random assignment Vs Random sampling.

III. Write notes on:

(6 x 5 = 30)

1. Counter balancing.
2. Principles of matching.
3. The statistical concept of “*p* value”.
4. List out and briefly explain various types of research in psychology.
5. MANOVA.
6. Item analysis.

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[AHS 1022]

OCTOBER 2022

Sub. Code: 1022

**M. Phil. CLINICAL PSYCHOLOGY
FIRST YEAR (From 2017-2018 batch onwards)
PAPER II – STATISTICS AND RESEARCH METHODOLOGY**

Q. P. Code: 151022

Time: Three hours

Maximum : 70 Marks

Answer ALL Questions

I. Elaborate on: (1 x 20 = 20)

1. Describe types of research.

II. Write notes on: (2 x 10 = 20)

1. Under what circumstances stratified random sampling design is considered appropriate? How would you like to select such sample? Explain by means of an sample?
2. Short Notes on
 - a. Cross Tabulation.
 - b. Discriminant analysis.
 - c. Coefficient of contingency.
 - d. Coefficient of variation.

III. Write notes on: (6 x 5 = 30)

1. Distinguish between
 - a. Convenience sampling and purposive sampling.
 - b. Systematic and stratified sampling.
2. Are the following nominal, ordinal, interval and ratio data?
 - a. Temperature measured in kelvin scale.
 - b. Military ranks
 - c. Aadhar numbers.
 - d. Code numbers given to the religion of persons attempting suicide.
3. What are the guiding considerations in the constructions of questionnaire? Explain.
4. State the reasons. Why sampling is used in the context of research studies?
5. Briefly describe the important parametric tests used in context of testing Hypothesis.
6. Explain the meaning of analysis variance. Describe briefly one way variance.

M.PHIL CLINICAL PSYCHOLOGY
FIRST YEAR (From 2017-2018 Batch onwards)
PAPER II – STATISTICS AND RESEARCH METHODOLOGY

Q. P. Code: 151022

Time: Three hours

Maximum : 70 Marks

Answer ALL Questions

I. Elaborate on: (1 x 10 = 20)

1. What is research problem? Define the main issues which should receive the attention of the researchers in formulating the research problem. Give suitable example to elucidate your points.

II. Write notes on: (2 x 10 = 20)

1. Explain different research design.
2. Write brief essay on statistical estimation.

III. Write notes on: (6 x 5 = 30)

1. Latin square design.
2. Simple factorial design.
3. The procedure of testing hypothesis requires a researcher to adopt several steps. Describe in brief all such steps.
4. Write short notes on:
 - a. Additive property of chi-square
 - b. Chi square as a goodness
 - c. Precautions and conditions of for applying chi-square.
5. Explain the meaning of analysis of variance. Describe one-way analysis.
6. Write short notes on rotation in context of factor analysis.

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[AHS 1023]

OCTOBER 2023

Sub. Code: 1022

**M.PHIL. CLINICAL PSYCHOLOGY
FIRST YEAR (From 2017-2018 onwards)
PAPER II – STATISTICS AND RESEARCH METHODOLOGY**

Q. P. Code: 151022

Time: Three hours

Maximum: 70 Marks

Answer ALL Questions

I. Elaborate on:

(1 x 10 = 20)

1. Experimental design in Clinical Study in Mental Health. Elaborate its characteristics and limitations compare to other research designs.

II. Write notes on:

(2 x 10 = 20)

1. Regression analysis.
2. Non-Para metric test.

III. Write notes on:

(6 x 5 = 30)

1. “p” value.
2. Wilcoxon Signed – Rank test with suitable example.
3. Paired “t” test.
4. Multiple baseline design.
5. Snowball sampling.
6. Item writing.

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[AHS 1024]

OCTOBER 2024

Sub. Code: 1022

**M.PHIL. CLINICAL PSYCHOLOGY
FIRST YEAR (From 2017-2018 onwards)
PAPER II – STATISTICS AND RESEARCH METHODOLOGY**

Q. P. Code: 151022

Time: Three hours

Maximum: 70 Marks

Answer ALL Questions

I. Elaborate on:

(1x10=20)

1. Differentiate qualitative research from quantitative research with suitable example from behavioural science.

II. Write notes on:

(2x10=20)

1. Item analysis.
2. Normal distribution curve. Briefly explain with example using graphical representation.

III. Write notes on:

(6x5=30)

1. Measure of Dispersion.
2. Type I and Type II errors.
3. Characteristics of “Power of test”, with suitable example.
4. Chi Square Test.
5. “Within group” Vs “between group” design.
6. Crossover design.

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[AHS 1025]

OCTOBER 2025

Sub. Code: 1022

**M.PHIL. CLINICAL PSYCHOLOGY
FIRST YEAR (From 2017-2018 onwards)
PAPER II – STATISTICS AND RESEARCH METHODOLOGY**

Q. P. Code: 151022

Time: Three hours

Maximum: 70 Marks

Answer ALL Questions

I. Elaborate on: (1x10=20)

1. Explain in detail about prospective study designs with examples.

II. Write notes on: (2x10=20)

1. Explain the importance of Randomization in experimental studies.
2. Describe Path analysis and discriminant function analysis.

III. Write notes on: (6x5=30)

1. Write about the Binomial distribution.
2. Define non-sampling errors.
3. Describe Reliability and Validity.
4. Write the importance of the P value and the confidence interval in research.
5. Define Randomized Block design.
6. Difference between t-test and post-hoc tests.
