OCR Paper 1 Exam Analysis

2025

Section A

- Overt observation
- Greater than symbol
- Wilcoxon test
- Scattergram for no correlation
- Practical report sections
- Ethics – debriefing
- Value of N in Mann Whitney critical values table
- Calculate the range
- Freud – secondary data
- Gould – cognitive ability of IQ
- Calculate the standard deviation from variance
- Reading a line graph of data
- Research question
- Harvard referencing
- Face validity
- Referencing academic sources
- Unstructured interviews
- Field experiments
- Bandura – variables to check inter-rater reliability
- Bandura – control in the observation room

Section B

- **Scenario for correlation –** write a null hypothesis (3), explain how you would use a correlation study, making reference to your own practical (15), one strength and one weakness of correlation (6), one weakness of self-selected sampling (3), ethical consideration (2), two ways validity of the data collection could be affected (6)

Section C

- **Scenario for self-report –** sketch a pie chart (4), outline two conclusions from pie chart (6), calculate % from table (3), one reason why Chi-squared would be appropriate (2), calculate Chi-squared test (5), explain what $p<0.05$ means (3), one way self-report decreases reliability (3), one strength and one weakness of nominal data (6)

2024

Section A

- Reliability
- Quasi experiments
- Probability
- Central tendency measures (median)
- Standard deviation and variance
- Structured interviews
- Calculated values
- Significant figures
- Loftus & Palmer - conditions
- Moray - DV
- Nominal data
- Harvard referencing
- Correlation coefficient
- Milgram - ethics
- Peer review
- Measures of dispersion (range)
- Semantic differential scale
- Calculating mean score
- Anomaly in data set
- Extraneous variables

Section B

Scenario for experiment – write a one-tailed hypothesis (3), explain how you would use the laboratory experimental method, making reference to your own practical (15), open-ended question (3), strength of using open-ended questions (3), one strength of lab experiments (3), ethics in the lab experiment (2), two factor affecting external validity (6)

Section C

Scenario for experiment – one conclusion from raw data (3), draw and label a bar chart (4), reasons for Mann Whitney test (2), how data is ranked in Mann Whitney test (3), calculate Mann Whitney U value (5), determine the critical value (1), meaning of probability (3), strength of quantitative data (3), weakness of quantitative data (3), one strength and weakness of independent measures design (2), how independent measures design affects validity (4), write-up of practical reports; sample (1), suggestions for future research (1)

2023

Section A

- Competence in ethics
- Ratio calculation
- Percentage
- Chi-squared test
- Wilcoxon test
- Primary data
- Type 1 error
- Covert observations
- Variance – dispersion around the mean
- Milgram - % participants who disobeyed
- Loftus & Palmer - Independent measures design
- Fractions
- Ranking data set
- Normal distribution curve
- Sample size differences in Mann Whitney test
- Decimal places
- Experimental designs
- Sampling techniques
- Concurrent validity
- Mode

Section B

Scenario for experiment – write a one-tailed hypothesis (3), explain how you would use the laboratory experimental method, making reference to your own practical (15), strength of independent measures design (3), weakness of independent measures design (3), open question example (2), evaluate use of open question example (3), evaluate lab experiments (6)

Section C

Scenario for experiment – ranking data (2), ranks of data in question (2), calculate the mean (3), draw and label a bar chart (4), outline one conclusion from bar chart (4), explain why it's better to use the median than the mean (2), calculate Mann Whitney U test (5), find the critical value in the table (2), interpret the significance of the Mann Whitney U test (2), weakness of not having qualitative data (3), two factors which could affect the reliability (6)

2022

Section A

- Section in a practical report – significance statement
- Probability – null hypothesis
- Difference between inferential and descriptive statistics
- Peer review
- Variance and standard deviation calculation
- Random sampling definition
- Type of reliability
- Type of data in Chi squared test
- Simplify a ratio
- Levine – type of correlation
- Maguire – two variables positively correlated
- Decimals and fractions
- Identifying a dependent variable
- Binomial sign test
- Criteria for parametric tests
- Likert scales
- Science – logical reasoning
- Type 1 errors
- Overt observations
- Skewed distributions

Section B

Scenario for experiment – write a two-tailed hypothesis (3), explain how you would use the laboratory experimental method, making reference to your own practical (15), one closed question (3), strength of closed questions (3), weakness of lab experiments (3), reducing demand characteristics (2), two ways study supports the view Psychology is a science (6)

Section C

Scenario for observation – one conclusion from the data (3), draw and label a pie chart (4), why a Chi-squared test would be used (2), calculate the expected frequency in the Chi-squared test (3), calculate the Chi-squared test in full (3), calculate degrees of freedom (2), interpret the results using the critical value table (1), conclusions from the test (3), strength of using quantitative data (3), weakness of using quantitative data (3), two ways naturalistic observation could affect validity of data (6), section of practical report for raw data (1) and calculations of stats tests (1)

2021

Section A

- Levels of data – nominal
- Variance calculation
- Type of correlation in scattergram - coefficient
- Participants in scattergram
- Appendices in practical report write up
- Harvard system
- Level of data & experimental design in Mann Whitney test
- Peer review
- Quasi experiments
- Type of inferential stats test – parametric
- Levels of data knowledge
- Ethics guideline – competence
- Types of interview
- Calculating expected value in Chi-squared test
- Blakemore and Cooper – dependent variable
- Kohlberg – type of research method
- Type of observation
- Purpose of an abstract in practical report write up
- Reducing demand characteristics
- Lee - sample

Section B

Scenario for self-report – Outline what a self-report method involves (2), give details of the sample (2), how they could use a self-selected sample (3), one weakness of self-selected sampling (3), explain how you would use the self-report method, making reference to your own practical (15), two weaknesses of the self-report method (4), sampling technique in your practical (3), one strength of this sampling method (3)

Section C

Scenario for experiment – calculate mean (3), calculate median and range (3), calculate percentage (3), explain the difference in standard deviation figures (3), strength of using standard deviation over variance (3), calculate Wilcoxon test (5), interpret Wilcoxon result with critical value from the table (2), write significance statement (2), two criteria for parametric tests (2), generalisability of the sample (3), advantage of having quantitative data (3), disadvantage of not having qualitative data (3)

2020

Section A

- Positive correlation
- Type 1 and type 2 errors
- Anomalies in data
- Inferential test that uses degrees of freedom
- Sign test
- Probability of 0.05
- Conditions for an inferential stats test
- Time sampling
- Standard deviation purpose
- Moray - research method
- Levine - level of data
- Decimals as fractions
- Variance and standard deviation
- Skewed distribution curve
- Assumptions of parametric tests
- Significant figures
- Citing academic references
- Raw data
- Experimental designs
- Measures of dispersion

Section B

Scenario for experiment - Write an alternative one-tailed hypothesis (3), explain how you would use the experimental method, making reference to your own practical (15), one strength of using repeated measures design (3), one weakness of using repeated measures (3), one way you could obtain qualititative data (2), evaluate the use of qualitative data in this study (3), evaluate the external validity of this study (6)

Section C

Scenario for correlation – explain how the data has been ranked (2), explain why data given has been ranked that way (2), draw and label a scattergram (4), outline two conclusions from the scattergram (4), calculate the mean (3), why it's more appropriate to use the mean (2), calculate spearman's rho (5), identify the critical value from a table (2), write the significance statement (2), one weakness of not having qualitative data in this study (3), two things that could have affected the validity (6)

2019

Section A

- Negative skewed distribution
- Type 2 errors
- When best to use median/ mean
- Statistical tests (ranking)
- Appropriate inferential statistics
- Symbol for approximately
- Criterion validity
- Unstructured interviews
- Line graphs
- Simons and Chabris - DV
- Baron-Cohen - sampling technique
- Decimals as fractions
- Correlation in a scattergram
- Sections in a psychological report
- Primary data
- Histograms and continuous data
- Field experiments and variables
- Naturalistic observations
- Coding frames
- Representativeness

Section B

Scenario for correlation - Write an alternative one-tailed hypothesis (3), explain how you would use correlation, making reference to your own practical (15), how you could obtain secondary data (3), one strength of secondary data (3), one weakness of quantitative data (3), state an open question used for qualitative data (2), strength of qualitative data (3), one way that the design could increase the generalisability of the findings (3)

Section C

Scenario for naturalistic observation – Draw and label a bar chart (4), calculate the percentage (3), two conclusions from the data (6), one reason why Chi-Squared test is appropriate (2), calculate the degrees of freedom (2), identify the critical value in a table with 5% level of probability (1), write a significance statement (3), explain the analysis from the Chi-square test in context (3), one strength of nominal data (3), one weakness of nominal data (3), implications of a type 1 error (2), weakness of event sampling (3)

2018

Section A

- Quasi experiment
- No IV and DV (correlation)
- Extraneous variables
- Target population
- Data before any analysis (raw)
- Split-half reliability
- Statistical test does not use ranking (Chi-square)
- Secondary data
- 'Significant result' definition
- Social desirability definition
- Appendices in practical report
- Harvard system
- Semantic differential rating scale
- Peer review
- Interval data
- Correlation coefficient
- Mode
- Standard deviation
- Maguire - variable negatively correlated with length of time as taxi driver
- Piliavin - type of data collected

Section B

Scenario for naturalistic observation - Write an aim (2), explain how you would use naturalistic observation, making reference to your own practical (15), two things that may influence the inter-rater reliability (6), one strength and one weakness of using naturalistic observation (6), two ways you would address the ethical consideration of 'responsibility' (6)

Section C

Scenario for questionnaire - Calculate the mean to two significant figures (3), calculate the median (2), identify the mode (1), show workings for the range (4), conclusion from the range (3), calculate the value of Chi-square (5), critical value at the 5% probability level in Chi-square (2), significance statement of Chi-square (2), show workings for calculating the ratio (4), evaluate the population validity (6), conclusion from the discussion of your practical (3)

2017

Section A

- Variables
- Calculate mode
- Value of 'n' in standard deviation
- Calculate mean
- Extraneous variable
- Appropriate statistical test
- Symbol for much less than
- Inter-rater reliability
- Skewed distribution
- Interpreting skewed distribution graph
- Definition of parametric tests
- Casey - DV
- Deductive reasoning
- Likert scales
- Pie charts
- Calculate percentage
- Total percentage
- Chaney - type of questions
- Ethical consideration
- Internal reliability

Section B

Scenario for self report - Write an aim (2), define semi-structured interview (2), relate semi-structured interview to the scenario (4), evaluate use of semi-structured interviews (6), Explain self-report method for scenario and refer to own practical work (15), evaluate self-report method in this study (6)

Section C

Scenario for experiment - Identify two findings from a table (4), calculate mean condition one (2), calculate mean condition two (2), calculate mean percentage (2), explain how to calculate standard deviation (5), what does SD show (2), explain the findings in relation to SD (4), appropriate stats test (2), how data is ranked (2), advantage and disadvantage of quantitative data (4), define hypothesis testing (3), define manipulation of variables (3)

Specimen Practice Papers

Set 1

Section A

- Coding frame
- Define quasi-experiments
- Naturalistic observation
- Definition of variance
- Probability level
- Type 1 errors
- Decimal as two significant figures
- Calculate median
- Define measures of central tendency
- Identify non-parametric test
- Ratio
- Where are standardised instructions located in a report
- Standard form
- Bandura - sampling
- Bocchiaro - sampling
- Nominal data
- Where is the background research located in a report
- Peer review
- Loftus and Palmer - independent groups
- Loftus and Palmer - type of data collected

Section B

Scenario for lab experiment – Sampling technique (1), evaluation of sampling technique (4), one-tailed hypothesis (3), explain lab experiment method for scenario and refer to own practical work (15), evaluate matched pairs design (6), open ended question (2), closed question (2), rating scale (2)

Section C

Scenario for correlation - Identify two findings from the table (4), draw scattergram (4), calculate range (2), conclusion by interpreting results (4), advantage of standard deviation over range (3), two strengths of correlation (4), two weaknesses of correlation (4), why Spearman's Rho is appropriate (2), how data is ranked (2), explain correlation coefficient (3), define critical value (1), explain critical value (2)

Set 2

Section A

- Covert structured observation
- Strong negative correlation
- Criteria for Mann Whitney U test
- Ra in the Mann Whitney formula
- Quasi –experiments
- Value of 'n' in standard deviation
- Simons and Chabris - IV
- When to use the median
- Levine - variables
- Concurrent validity
- Type 1 errors
- Subjectivity
- References in a practical report
- Measures of dispersion
- Harvard referencing system
- Calculate median
- Criteria for a parametric statistical test
- Calculate percentage
- Identify type of data (level of measurement)
- Define representativeness

Section B

Scenario for correlation - Write a null hypothesis (3), explain correlational method for scenario and refer to own practical work (15), strength of having quantitative data (3), weakness of quantitative data (3), how qualitative data could be collected (3), how external validity is high (3) how external validity is low (3), demand characteristics (2)

Section C

Scenario for observation - Calculate percentages showing workings (4), ratio (2), appropriate non-parametric test (3), explain how to work out expected values (2), symbol for more than (2), draw and label bar chart (4), two conclusions from raw data (6), one ethical issue (3), factors affecting reliability (6), three items that would appear in an appendices (3)

Set 3

Section A

- Types of interview
- Error in Harvard referencing example
- Chaney - two conditions
- Calculate the range
- Independent variable
- Maguire - participants
- Define socially desirable
- Qualitative data
- Probability levels
- Inferential test for a correlation
- Definition of experiment
- Grant - DV
- Correlation coefficients
- Weakness of calculating mode
- Requirements of parametric tests
- Bandura - purpose of pre-testing
- Falsification
- Interval data
- Milgram - controls
- Induction

Section B

Scenario for observation – One advantage of observation over self reports (2), ethical issues (3), strength and weakness of opportunity sampling (6), one other sampling method (2), strength and weakness of this sampling method (4), alternative hypothesis (3), explain observational method for scenario and refer to own practical work (15)

Section C

Scenario for an experiment - Identify findings from bar chart (2), why bar chart is appropriate (2), calculate percentages (2), name experimental design (2), random allocation of participants (2), why experimental design is appropriate (5), identify ratio (2), simplify ratio (2), two reasons for Chi-Squared test (4), how to calculate degrees of freedom (2), interpret Chi-squared result using critical values and significance levels (4), define cause and effect (3), define objectivity (3)

Set 4

Section A

- Participant observation
- Academic referencing
- Null hypothesis
- Secondary data
- Strength of questionnaires
- Fractions in pie charts
- Event sampling
- Weakness of overt observations
- External validity
- Purpose of abstract in reports
- Random sampling
- Criterion validity
- Representative samples
- Observer bias
- Demand characteristics

Section B

Scenario for correlation – hypothesis (2), closed questions (1), quantitative data (3), graph for correlations (1), results section (1), strength of self selected sample (3), weakness of self selected sample (3), ethics: confidentiality, informed consent, protection (6), construct validity (3), explain experimental method for scenario and refer to own practical work (15)

Section C

Scenario for quasi-experiment - Calculate median (2), outline conclusion (2), dispersion of scores (2), draw and label a frequency graph (4), define quasi-experiment (2), why a quasi-experiment (2), difference between structured and unstructured interviews (3), purpose of peer review (3), social desirability in peer review (5)