IQM4004

LEVEL 4 · SAMPLE ASSESSMENT

INTO QUALIFICATIONS

Statistics and Data Analysis

Final Written Examination

STAFF ONLY · Staff marking and administration guide

Assessment
IQM4004 A3

Sample set
2026-S

Status
SAMPLE ASSESSMENT

Release timing
exam release

Duration
2 hours

Response length
Not applicable

Total marks
100

Weighting
40% of module

AI condition
Level 1 – Controlled Assessment: no AI permitted at any stage.

Administration and delivery

Use the approved IQM4004 2026-S formula booklet included in the candidate sample pack. Issue the complete pack at the start and collect it at the end.

Invigilate for 2 hours; verify permitted calculators and prohibit all candidate materials/electronic devices.

Candidates must answer all five A questions and exactly one alternative in each of B, C and D; score unattempted optional alternatives as zero and apply centre rules for multiple attempts consistently.

This guide uses the complete mock response as an illustrative model bank. The 100/100 profile selects B1, C1 and D1; B2, C2 and D2 are additional worked alternatives and are not included in that profile.

Mark scheme and indicative content

A [40 marks]

See complete model response and source specification.

Mark allocation

A1 8: mean 3, median 2, range 2, robust measure 1; A2 8: sequential calculation 4, final value 2, net change 2; A3 8: rate 4, non-response explanation 4; A4 8: successive two-week averages for weeks 1–2, 2–3 and 3–4 (3 marks); centred moving average for week 2 from the first two successive averages (1 mark); centred moving average for week 3 from the second and third successive averages (1 mark); explanation of one use (3 marks). Expected results: successive averages 42, 46 and 50; week 2 centred moving average 44; week 3 centred moving average 48. A5 8: interval calculation 5, cautious interpretation 3.

Acceptable alternatives

For Sections B-D award equivalent credit to valid methods and reasoned conclusions. For D1, either cautious pilot, staged adoption or retaining X may receive full credit if tied to the stated objective and uncertainty. For D2, credit conditional use with safeguards or rejection if well reasoned.

B [20 marks]

See complete model response and source specification.

Mark allocation

Candidate answers exactly one option. B1 allocation: graph or method 4; Pearson correlation or another valid quantified association 5; contextual interpretation 5; limitation and causation caution 3; further evidence 3. B2 allocation: contextual pattern 5; absolute and percentage change 5; appropriate visualisation 4; limitation and causation explanation 6. For B1, accept a calculated Pearson correlation of approximately r = −0.991, or another valid quantified association method, with a correct interpretation.

Acceptable alternatives

For Sections B-D award equivalent credit to valid methods and reasoned conclusions. For D1, either cautious pilot, staged adoption or retaining X may receive full credit if tied to the stated objective and uncertainty. For D2, credit conditional use with safeguards or rejection if well reasoned.

C [20 marks]

See complete model response and source specification.

Mark allocation

Candidate answers exactly one option. C1 allocation: prediction method and calculation 7; correct prediction 5; interpretation of slope, r and p 5; assumption or limitation 3. C2 allocation: hypotheses, standard error, interval and decision method 7; correct interval and decision result 5; contextual interpretation 5; assumption or limitation 3.

Acceptable alternatives

For Sections B-D award equivalent credit to valid methods and reasoned conclusions. For D1, either cautious pilot, staged adoption or retaining X may receive full credit if tied to the stated objective and uncertainty. For D2, credit conditional use with safeguards or rejection if well reasoned.

D [20 marks]

See complete model response and source specification.

Mark allocation

Candidate answers exactly one option. D1 allocation: evidence comparison 5; uncertainty and data limitations 5; balanced decision 6; practical safeguard or next test 4. D2 allocation: evidence about bias, privacy and uncertainty 5; data and ethical limitations 5; balanced decision and ethical reasoning 6; practical safeguards or next step 4.

Acceptable alternatives

For Sections B-D award equivalent credit to valid methods and reasoned conclusions. For D1, either cautious pilot, staged adoption or retaining X may receive full credit if tied to the stated objective and uncertainty. For D2, credit conditional use with safeguards or rejection if well reasoned.

Standardisation guidance

Apply consequential credit only where the specified scheme permits; do not double-penalise carried-forward arithmetic errors.

Accept equivalent valid analytical approaches and properly justified conclusions.

Check criterion/subquestion totals equal the published total before use.