Revision practice

International Baccalaureate · IB Diploma · Digital Society · SL

1 Data, algorithms and digital power

- algorithm
- digital footprint

Question 1

Why is replacing every missing quiz with zero risky?

Available marks: 2.

Worked answer

It treats different causes of missing data as evidence of low ability.

Question 2

Explain the mechanism or reasoning in this original case: A school app recommends study groups using attendance and quiz records. A useful prediction may still expose information or reproduce unequal opportunities.

Available marks: 4.

Worked answer

A missing quiz can mean absence, connection failure or refusal to participate. Treating every missing value as low ability changes recommendations. Investigate missing-data rules and compare outcomes across users before describing the system as fair.

- Accurate relevant concept (1)
- Specific evidence from the case (1)
- Connected reasoning (2)

A prediction does not establish a cause. High average accuracy can conceal unequal errors across groups. / Explain the specific harm and stakeholder rather than merely writing privacy is important.

2 Networks, media and automation

- network
- automation

Question 1

What best evaluates whether consultation access improved?

Available marks: 2.

Worked answer

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Evidence of completed, timely consultations across patient groups, not just registered accounts.

Question 2

Explain the mechanism or reasoning in this original case: A remote clinic uses online consultation, but its connection often fails. Access to an application does not guarantee effective access to its service.

Available marks: 4.

Worked answer

Compare the clinic's bandwidth, reliable power, device access and staff skills with the service's needs. Evaluate benefits such as specialist advice alongside delayed responses, privacy obligations and reliance on providers.

- Accurate relevant concept (1)
- Specific evidence from the case (1)
- Connected reasoning (2)

Digital solutions have material costs: energy, devices and maintenance. / Avoid a technology-only explanation of change when institutions, culture and income also shape outcomes.

3 Researching impacts and implications

- inquiry
- implication

Question 1

Which source comparison is most useful?

Available marks: 2.

Worked answer

Compare each source's method and interests against the same focused inquiry question.

Question 2

Explain the mechanism or reasoning in this original case: A headline claims automated recommendations help every learner. Your inquiry must decide which users, outcome and setting it can actually investigate.

Available marks: 4.

Worked answer

Ask how a particular recommendation system changes access to suitable practice for one school group. Compare usage evidence, user accounts and published analysis. Separate an observed association from a causal claim and show where sources disagree.

- Accurate relevant concept (1)

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- Specific evidence from the case (1)
- Connected reasoning (2)

Do not collect classmates' private records without school approval. / Keep the process document, multimedia presentation and references as separate required evidence rather than substituting an essay-only test.