1.1 Data, algorithms and digital power

Name: _____ Class: _____ Date: _____ **Total: 30 marks**

KEY WORDS concepts • data

Data, algorithms and digital power

Objective

Supported preparation: Read a digital case through the concept lenses; Focus inquiry with the concept-content-context-example formula. This is original rehearsal, not completion of the assessed task.

1 Key knowledge and worked examples

Inquiry toolkit. Seven concepts as lenses: change, expression, identity, power, space, systems, values and ethics (a concept is a question asked of a case). Data (3.1): raw capture, not information; ask collection, processing, storage; datasets have makers. Algorithms (3.2): assumptions in, decisions out; bias through. Seven contexts (cultural, economic, environmental, health, human knowledge, political, social). Focus formula: concept x content x context x real-world example. Worked: the school attendance app.

2 Practice

2.1 Name the seven course concepts. [7]

2.2 What is the difference between data and information, with one example? [2]

2.3 What three questions discipline the content area of data? [3]

2.4 What two things must be asked of an algorithm? [2]

2.5 Name any five of the seven contexts. [5]

3 Exam-style questions

3.1 *(Concept style.)* The attendance app flags rural students as late because one bell time serves all bus routes. Read the case through TWO named concepts. [4]

3.2 *(Data style.)* A dataset of school arrivals is called neutral evidence. Evaluate the claim with the toolkit. [4]

3.3 *(Focus style.)* Focus an inquiry on the attendance app with the full formula, and name the failure mode your focus avoids. [3]