

Geography Level 10

End-of-level review

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End-of-level review — Geography Level 10

Geography 10 · Level 10 · End-of-level review · Chapters 1–6 · 60 marks

Total: 60 marks · 26 questions in six parts — one part for each chapter of this book. Planned for about 90 minutes. **This paper is untimed — there is no time to beat.**

This is a school-designed paper. It is not a VCAA instrument. Achievement at Level 10 is reported against the Victorian Curriculum achievement standard on teacher judgement; the marks here are one source of evidence towards that judgement.

Conditions

- Completion is **untimed**. The 90 minutes is planning guidance only; take as long as you need.
- **Open book**. Your workbook — or the chapter booklets — may be open on your desk. Every question that needs data tells you which section and which figure or table to use: turn to it and read from it. You are marked on geographical reasoning, not on memory.
- **Reading support** is permitted. Your teacher may read any question out to you if you need it. Reading is not what is being looked at, and your teacher will not help with the answer.
- Answer every question in the space provided. Where a question asks you to explain, evaluate, justify or recommend, marks are awarded for the reasoning — for contested questions, a well-argued answer on either side can earn full marks.

The paper at a glance

Part	Chapter	Sections	Questions	Marks
Part 1	Biomes and food security	1A–1D	Q1–Q5	10
Part 2	Geographies of interconnection	2A–2E	Q6–Q9	10
Part 3	Environmental change and management	3A–3E	Q10–Q13	10
Part 4	Geographies of human wellbeing	4A, 4C, 4D	Q14–Q18	10
Part 5	Skills: geographical inquiry	5A–5D	Q19–Q22	10
Part 6	Skills: concluding, decision-making and communicating	6A–6C	Q23–Q26	10
			Total	60

Every item is tagged with the content description its section owns, so a teacher can see which code each answer is evidence for. The last item (Q26) is a cross-chapter synthesis question: it draws on knowledge and skills from across the book.

Part 1 — Biomes and food security

Questions 1–5 · 10 marks · drawn from sections 1A–1D

Q1 (2 marks · VC2HG10K01 · section 1A)

(a) Define *biome* as section 1A uses the term. (1 mark)

(b) Define *net primary productivity* (NPP). (1 mark)

Q2 (2 marks · VC2HG10K01 · section 1A)

Use Figures 2 and 3 in section 1A.

(a) From Figure 2, name the most productive and the least productive land biome. (1 mark)

(b) From Figure 3, which of land and ocean produces more NPP per square metre? Give the explanation section 1A offers for the difference. (1 mark)

Q3 (2 marks · VC2HG10K02 · section 1B)

(a) Name the three families of factors that section 1B says influence crop production. (1 mark)

(b) Using the rice-yield chart in section 1B, state the change in Indonesia's rice yields that the chart shows, and name the technology behind it. (1 mark)

Q4 (2 marks · VC2HG10K03 · section 1C)

(a) Section 1C uses the 1987 Brundtland definition of *sustainability*. State it. (1 mark)

(b) Using the three pillars, explain why a farm that is profitable but is ruining its soil is not sustainable. (1 mark)

Q5 (2 marks · VC2HG10K04 · section 1D)

(a) Name the four pillars of food security as section 1D states them. (1 mark)

(b) Use the hunger-by-region chart in section 1D to compare Africa and Asia on BOTH the number of people facing hunger and the share of population. Which measure makes Africa's situation look more severe, and why? (1 mark)

Part 2 — Geographies of interconnection

Questions 6–9 · 10 marks · drawn from sections 2A–2E

Q6 (2 marks · VC2HG10K05 · section 2A)

(a) Section 2A opens with the Mildura–Melbourne comparison: a road distance, a straight-line distance and a regional flight. Use that comparison to explain the sentence “distance is fixed; the time to cross it is not”. (1 mark)

(b) Use the “Who is online?” chart in section 2A. Calculate the gap, in percentage points, between internet use in high-income and low-income groups, and give the name the section defines for gaps of this kind. (1 mark)

Q7 (3 marks · VC2HG10K06 · section 2B)

(a) Use Figure 1 in section 2B. State how Shenzhen’s population changed between 1980 and 2020, and name who most of the new residents were. (1 mark)

(b) Use Figure 6 in section 2B. State how manufacturing’s share of Australian employment changed between 1965 and 2023. (1 mark)

(c) The Geelong timeline (Figure 11) in section 2B carries closures alongside a population figure. Explain how Geelong shows that a change in trade can hurt and help one place at the same time — use two dated events and the population change. (1 mark)

Q8 (2 marks · VC2HG10K07 · section 2C)

(a) Define *embodied carbon* as section 2C uses the term. (1 mark)

(b) Use the flow diagram in Figure 8 of section 2C. Compare Australia’s counted emissions inventory with the carbon dioxide released overseas when Australia’s exported coal and LNG are burned, and state whether Australia is a net exporter or a net importer of embodied carbon. (1 mark)

Q9 (3 marks · VC2HG10K08 + VC2HG10K09 · sections 2D and 2E)

(a) State the working definition of *overtourism* that section 2D uses. (1 mark)

(b) Name the three diffusion models in Figure 2 of section 2E, and say which one best matches the first-case dates on the spread map (Figure 5). (1 mark)

(c) Section 2E concludes: “The cargo differs — a song, a virus, a financial shock — but the web is the same: travel, trade and digital networks.” Explain how the visitors in section 2D’s Venice case move through the same web that carried a music trend in section 2E. Name one route both use. (1 mark)

Part 3 — Environmental change and management

Questions 10–13 · 10 marks · drawn from sections 3A–3E

Q10 (2 marks · VC2HG10K10 · section 3A)

(a) Name the four functions of the environment that section 3A uses as criteria for judging sustainability. (1 mark)

(b) Use the Hazelwood timeline (Figure 6) in section 3A. Identify which function failed during the 2014 mine fire, and give one dated detail from the timeline that supports your answer. (1 mark)

Q11 (2 marks · VC2HG10K11 · section 3B)

(a) Distinguish between a biophysical process and an underlying cause of an environmental issue. (1 mark)

(b) Use the causes web (Figure 5) in section 3B. Give one biophysical process and one underlying cause of the Bass Coast erosion. (1 mark)

Q12 (3 marks · VC2HG10K12 · section 3C)

(a) State section 3C's fixed working definition of *custodial responsibility*. (1 mark)

(b) Use the four-family figure in section 3C. Name two of the families of custodians in Victoria, each with one example from the section. (1 mark)

(c) Use the helmeted honeyeater chart in section 3C. Describe the change in the wild population between 1967 and March 2020, naming the event the chart marks on the way down. (1 mark)

Q13 (3 marks · VC2HG10K13 + VC2HG10K14 · sections 3D and 3E)

(a) Name the three environmental worldviews taught in section 3D. (1 mark)

(b) Use the worldviews figure (Figure 10) in section 3E. Explain how a human-centred and an Earth-centred judgement of the planned Rotary Park seawall would differ. (1 mark)

(c) The strategy scorecard (Figure 9) in section 3E rates three strategy families against three criteria. Use two ratings from the scorecard to support the section's claim that management is "a judgement, not a lookup". (1 mark)

Part 4 — Geographies of human wellbeing

Questions 14–18 · 10 marks · drawn from sections 4A, 4C and 4D

Q14 (2 marks · VC2HG10K15 · section 4A)

(a) Name the three dimensions the Human Development Index (HDI) combines. (1 mark)

(b) Use the five-measures table (Figure 1) in section 4A. Name one measure that is money-only, and state one thing it does not show. (1 mark)

Q15 (2 marks · VC2HG10K15 · section 4A)

Use the HDI bar chart (Figure 4) and the HDI trends graph (Figure 6) in section 4A.

(a) From Figure 4, state Australia's HDI category in 2023 and name one country in the low category. (1 mark)

(b) From Figure 6, which country shows the fastest HDI rise between 1990 and 2023? Explain what section 4A means by “rising trend lines do not, by themselves, close gaps”. (1 mark)

Q16 (2 marks · VC2HG10K17 · section 4C)

(a) In section 4C's SEIFA figures, what does an IRSAD score of 1000 represent? (1 mark)

(b) Use the scale figure (Figure 9) in section 4C. Explain why the claim “the City of Greater Geelong is relatively advantaged” is true at one scale and false at another. (1 mark)

Q17 (2 marks · VC2HG10K17 · section 4C)

Use the local table (Figure 4) and the reasons web (Figure 10) in section 4C.

(a) Name the two suburbs section 4C compares, and state which has the higher median weekly household income. (1 mark)

(b) Name two of the five cause families in Figure 10, each with one piece of evidence from the table that points to it. (1 mark)

Q18 (2 marks · VC2HG10K18 · section 4D)

(a) Name the three channels through which Australia's aid program flows, with one example of each from section 4D. (1 mark)

(b) Use the JKN coverage figure in section 4D. State how coverage changed between the 2014 launch and 2020, and give the limit the worked example draws — what JKN largely removed, and what it left standing. (1 mark)

Part 5 — Skills: geographical inquiry

Questions 19–22 · 10 marks · drawn from sections 5A–5D

Q19 (3 marks · VC2HG10S01 · section 5A)

(a) Name the seven geographical concepts. (1 mark)

(b) Use the question-families figure (Figure 2) in section 5A. Match each family — describe, explain, predict, evaluate — to the job it does. (1 mark)

(c) Section 5A defines a hypothesis as “a testable statement — a claim you write down before you look at the data”. Rewrite “Why is human wellbeing higher in some parts of Victoria than in others?” as a hypothesis in the form section 5A’s test plan (Figure 6) uses. (1 mark)

Q20 (2 marks · VC2HG10S02 · section 5B)

(a) Distinguish between a primary source and a secondary source, and explain why the same satellite image can belong to either family. (1 mark)

(b) Name the three checks section 5B runs on a source before using it, and name the two kinds of bias it defines. (1 mark)

Q21 (2 marks · VC2HG10S03 · section 5C)

(a) State what BOLTSS stands for. (1 mark)

(b) Use the format-chooser figure (Figure 1) in section 5C. Choose the format that best shows a relationship between two variables and the format that best shows the parts of one whole, and give a reason for each choice. (1 mark)

Q22 (3 marks · VC2HG10S04 · section 5D)

(a) Distinguish between a pattern and a trend, as section 5D defines them. (1 mark)

(b) Use the GHI change chart (Figure 6) in section 5D. Name one country whose score improved between 2000 and 2025 and one whose score worsened, and give the values for each. (1 mark)

(c) Section 5D separates a prediction from a forecast. Use the population forecast figure (Figure 13) to explain why the forecast region carries an indicative path rather than a certainty. (1 mark)

Part 6 — Skills: concluding, decision-making and communicating

Questions 23–26 · 10 marks · drawn from sections 6A–6C. Q26 is the paper's cross-chapter synthesis item.

Q23 (2 marks · VC2HG10S05 · section 6A)

(a) Name the four moves of section 6A's ethical-conclusion model (Figure 1). (1 mark)

(b) State the three tests a reason must pass for it to justify a conclusion (Figure 10). (1 mark)

Q24 (2 marks · VC2HG10S06 · section 6B)

(a) Name the three criteria section 6B uses to evaluate strategies. (1 mark)

(b) Use the scorecard figure in section 6B. Name the strategy rated Strong on BOTH the environmental and the economic criterion, and explain why “which strategy is best?” has an answer only once you say how you weigh the criteria. (1 mark)

Q25 (2 marks · VC2HG10S07 · section 6C)

(a) State the three moves section 6C shows for turning a research finding into part of your own writing. (1 mark)

(b) Name two differences between a casual tone and an authoritative tone, from the tone-comparison figure in section 6C. (1 mark)

Q26 (4 marks · VC2HG10S06 · cross-chapter synthesis — Chapters 1–4 and 6)

Food security is one thread that runs through this book: the data and the four pillars in Chapter 1, the wellbeing measures and spatial differences in Chapter 4, and the criteria and communication rules in Chapter 6. Pull the thread into one short recommendation. Keep your answer to the space provided, and name the sections, figures or tables you use.

(a) State ONE piece of evidence from Chapter 1 or Chapter 4 that shows why action on food security or wellbeing is needed, and name the section and figure or table it comes from. (1 mark)

(b) Choose one strategy from section 6B’s scorecard — or propose one of your own — and evaluate it against all three criteria: environmental, economic and social. (1 mark)

(c) Recommend your strategy, justifying the recommendation with at least TWO of the seven geographical concepts. Name the concepts you use. (1 mark)

(d) Give ONE predicted impact of your recommendation with its “because”, and one weakness that could make the prediction fail. (1 mark)

End of paper — 60 marks

Marking guide — End-of-level review (Geography Level 10)

This guide marks the end-of-level review paper (60 marks, Q1–Q26). The paper is open-book and untimed: marks are awarded for geographical reasoning demonstrated with the book’s own data, not for recall unaided. Scores on this paper are one source of evidence towards the teacher judgement that reports achievement against the Level 10 achievement standard; the paper itself carries no level tags.

General marking rules

- Award marks exactly as the tables below specify — no more than one mark per element listed.
- Definitions are marked on sense, not verbatim recall. Where a model answer quotes the book’s fixed definition, accept any wording that carries the same elements.
- Data answers must be traceable to the section, figure or table the item references. Check against the book. Rounded readings that are plainly correct are accepted; a value from the wrong section is not.
- Where an item says “name one” or “any”, accept any valid choice from the referenced section.
- Gaps between percentages are marked in **percentage points**, not per cent (the worked-example convention of section 2A).
- Contested items (Q9a, Q13b–c, Q24b, Q26) are marked on the quality of the reasoning, never on the side taken or the conclusion reached — the house rule sections 3A, 3D, 3E and 6A all state.
- “Explain”, “justify”, “evaluate” and “recommend” require a reason that connects the evidence to the claim. “Name” and “state” do not.

Coverage table — which item is evidence for which content description

Code	Items	Code	Items
VC2HG10K01	Q1, Q2	VC2HG10K13	Q13
VC2HG10K02	Q3	VC2HG10K14	Q13
VC2HG10K03	Q4	VC2HG10K15	Q14, Q15
VC2HG10K04	Q5	VC2HG10K17	Q16, Q17
VC2HG10K05	Q6	VC2HG10K18	Q18
VC2HG10K06	Q7	VC2HG10S01	Q19
VC2HG10K07	Q8	VC2HG10S02	Q20
VC2HG10K08	Q9	VC2HG10S03	Q21
VC2HG10K09	Q9	VC2HG10S04	Q22
VC2HG10K10	Q10	VC2HG10S05	Q23
VC2HG10K11	Q11	VC2HG10S06	Q24, Q26
VC2HG10K12	Q12	VC2HG10S07	Q25

Note on VC2HG10K16: no item on this paper carries the K16 tag. The spatial-difference reasoning K16 describes is exercised through the section 4C items (Q16–Q17), which use the same five cause families that section 4C names from VC2HG10K16.E01.

Q1 — VC2HG10K01 — 2 marks

Mark	Look for
1 (a)	A definition carrying the elements of section 1A’s first-use definition: a large region of the Earth with its own climate, its own vegetation, and its own biomass productivity (the rate at which new living material is made). “Large region” plus climate plus vegetation/biomass = mark.
1 (b)	NPP = the rate at which the plants of a biome build new biomass — the mass of new plant growth left over each

Mark	Look for
	year after the plants' own use is subtracted. Accept "rate of new plant growth", with or without the <i>net/primary</i> unpacking.

Q2 — VC2HG10K01 — 2 marks

Mark	Look for
1 (a)	Most productive land biome: tropical rainforest. Least: desert. Both must be land biomes (open ocean is not a land biome). Values optional (2,200 / 90 g/m ² /yr).
1 (b)	Land — with the per-square-metre reasoning: land covers 29% of the surface but contributes 54% of NPP; ocean covers 71% but contributes 46% (Figure 3). Accept reasoning via Figure 2 (open ocean averages ~125 g/m ² /yr against rainforest's 2,200).

Q3 — VC2HG10K02 — 2 marks

Mark	Look for
1 (a)	All three families: environmental, economic, technological. Two of three = no mark (the item says three). Members of each family need not be listed.
1 (b)	Yields roughly doubled (2.14 → 4.23 t/ha by 1989 is the chart's span; "about doubled" accepted) and the technology named: high-yielding variety (HYV) rice seed.

Q4 — VC2HG10K03 — 2 marks

Mark	Look for
1 (a)	The Brundtland sense as printed in section 1C: meeting the needs of the present without compromising (reducing) the ability of future generations to meet their own needs. Present + future generations = mark.
1 (b)	The three pillars used as reasoning: profitable = economic pillar only; ruined soil = environmental pillar failed; and because future yields depend on the soil, the farm undermines the future (social/economic) too — which is exactly what the definition in (a) forbids. One connective sentence is enough.

Q5 — VC2HG10K04 — 2 marks

Mark	Look for
1 (a)	All four pillars: availability, access, utilisation, stability.
1 (b)	Both measures compared: numbers close (Africa 309 m vs Asia 292 m, 2025) but shares far apart (Africa 56.6% vs Asia 20.3%); the share makes Africa look more severe because hunger touches more than half its population against about one person in five in Asia.

Q6 — VC2HG10K05 — 2 marks

Mark	Look for
1 (a)	The comparison used to explain the sentence: the road

Mark	Look for
1 (b)	distance (529.8 km, ~6.7 hours) and the straight-line distance (~456 km, ~1 hour by regional flight) — kilometres are fixed, but better transport shrinks the time to cross them, so places effectively get closer. 94% – 23% = 71 percentage points (unit matters), from the “Who is online?” chart; term: the digital divide (the section’s ITU-sense definition).

Q7 — VC2HG10K06 — 3 marks

Mark	Look for
1 (a)	Growth stated from Figure 1 (~0.3 million in 1980 to ~17.6 million in 2020, or “more than 50-fold”) AND who: young adults from rural China (migrant workers).
1 (b)	Manufacturing’s share of Australian employment fell from ~25% (1965) to ~6% (2023) (Figure 6). “Fell sharply/about four-fold/one in four to about one in seventeen” accepted.
1 (c)	Hurt AND helped, each tied to the timeline: any two dated closures (Alcoa Point Henry February 2014; Shell refinery → import terminal announced April 2014, completed 2015; Ford ended Australian manufacturing October 2016) against population growth (~233,000 in 2016 to ~268,000 in 2021). The idea marked: impacts are displaced/mixed — the same place loses jobs and gains people.

Q8 — VC2HG10K07 — 2 marks

Mark	Look for
1 (a)	Embodied carbon = the emissions released to make a product, move it, and (for fuels) burn it, carried in the product when it is traded. “Emissions built into traded goods” = mark.
1 (b)	Comparison from Figure 8: Australia’s counted inventory 458.9 Mt CO ₂ e against ~1,065 Mt released overseas when exported coal and LNG are burned (~2.3×); verdict: Australia is a net exporter of embodied carbon. Accept support via Figure 7 (production line above consumption line every year).

Q9 — VC2HG10K08 + VC2HG10K09 — 3 marks

Mark	Look for
1 (a)	The working definition section 2D prints: more visitors than a place can host without harm to the people who live there or to the place itself. Note the section flags the term as contested; students who add that the curriculum does not define it need not, for the mark.
1 (b)	Three models named: contagious, hierarchical, relocation; best match for the first-case map: hierarchical — it reached big, well-connected world cities first (Bangkok, Tokyo, Los Angeles, Paris, London, Melbourne...) on air routes. Accept a

Mark	Look for
1 (c)	contagious element once local transmission begins. Reasoning that both cases ride the same web — travel, trade and digital networks — with one shared route named (e.g. international air travel carries visitors to Venice as it carried first cases; digital networks book/amplify visitor flows as they shared the song). Mark the connection argued, not asserted.

Q10 — VC2HG10K10 — 2 marks

Mark	Look for
1 (a)	All four functions: source, services, sink, spiritual.
1 (b)	Sink identified — the fire overloaded the environment's capacity to absorb waste (smoke and ash over Morwell for weeks) — with one dated detail from Figure 6: began 9 February 2014; declared controlled 10 March 2014 (~four weeks); 2016 Inquiry linked 11 early deaths; power station closed March 2017.

Q11 — VC2HG10K11 — 2 marks

Mark	Look for
1 (a)	The distinction in section 3B's terms: a biophysical process is a natural physical process shaping the issue (waves, swash/backwash, longshore drift, storm surge); an underlying cause is a slower human force built up over time beneath the surface (building near dunes, beachside demand, emissions driving sea-level rise).
1 (b)	One of each from the causes web (Figure 5). Biophysical: winter storm waves strip sand faster than calm seasons return it (sand-budget deficit); longshore drift; higher sea levels lifting every surge. Underlying: homes/road/surf club built close to the dune; population growth (Bass Coast +24.3%, 2016→2021) raising beachside demand; protection works changing sand movement.

Q12 — VC2HG10K12 — 3 marks

Mark	Look for
1 (a)	The fixed working definition: the duty people feel to look after an environment and keep it healthy, not just to use it, so that it is still there for the people who come after them. Duty + keep healthy (not just use) + future people = mark.
1 (b)	Two families, each with one section example: community land stewardship (Landcare working bees, Dunecare, Yellingbo nursery); conservation organisations (Friends of the Helmeted Honeyeater, Zoos Victoria, BirdLife Australia); government park management (Parks Victoria); private landholders (Trust for Nature covenants).
1 (c)	The chart's arc described with values: 167 (1967) down to a low of 50 (1990), recovering to about 240 by March

Mark	Look for
	2020; event on the way down: the 1983 Ash Wednesday fires.
Q13 — VC2HG10K13 + VC2HG10K14 — 3 marks	
Mark	Look for
1 (a)	Human-centred, eco-centred, Earth-centred.
1 (b)	The two judgements contrasted from Figure 10: human-centred protects assets — safety, homes and livelihoods come first, so the seawall goes ahead; Earth-centred attacks the driver — cut emissions and stop building on land the sea is reclaiming, because every wall is temporary unless the driver changes (“walls fight the sea one storm at a time”). Reasoning marked, not the side.
1 (c)	Two ratings used to show no strategy is strong on everything: engineered wall Mixed/Strong/Mixed (env/social/econ); soft works Strong/Strong/Mixed; managed retreat Strong/Mixed/Mixed. The reasoning: any choice trades a criterion away, so which strategy wins depends on the weight the decision-maker gives each criterion — a judgement, not a lookup.
Q14 — VC2HG10K15 — 2 marks	
Mark	Look for
1 (a)	All three dimensions: a long and healthy life (life expectancy at birth); knowledge (years of schooling); a decent standard of living (GNI per capita, PPP dollars).
1 (b)	A money-only measure named from Figure 1 (GDP per capita or GNI per capita) AND one thing it misses that the table/section states: health, education, distribution/inequality, environmental quality, safety and freedom — any one.
Q15 — VC2HG10K15 — 2 marks	
Mark	Look for
1 (a)	Australia: very high (0.958, rank 7 of 193 — value/rank optional). A low-category country from Figure 4: South Sudan (0.388, rank 193).
1 (b)	China — the fastest rise in Figure 6 (+0.306, 1990→2023). The sentence explained: a country can rise fast from a low base and still sit far below countries rising slowly from a high base — the gap between the lines is what matters. Accept an illustration from the book: Bangladesh rose +0.288 yet only reached 0.685 (India’s level) in 2023; or PNG’s entire 33-year gain (+0.173) is smaller than its 0.382 gap below Australia (section 6C).
Q16 — VC2HG10K17 — 2 marks	
Mark	Look for
1 (a)	1000 = the Australian average: IRSAD scores are standardised so the national average sits at 1000; above

Mark	Look for
	= relatively advantaged, below = relatively disadvantaged.
1 (b)	The scale lesson from Figure 9: at LGA scale Greater Geelong scores 989.6, decile 8 — relatively advantaged; at SA1 scale 116 of its 621 areas (~19%) sit in the most disadvantaged deciles 1–2. The average hides pockets; the claim's truth depends on the scale examined.

Q17 — VC2HG10K17 — 2 marks

Mark	Look for
1 (a)	Norlane and Newtown (City of Greater Geelong); Newtown has the higher median weekly household income (\$2,092 vs \$909 — values optional).
1 (b)	Two of the five cause families (economic, social, technological, political, environmental), each tied to evidence from Figure 4 or the section text. Strongest pairings: economic → unemployment 10.5% vs 3.6% (or income \$909 vs \$2,092, a ratio of 2.3×); social → bachelor degree or higher 9.6% vs 40.6% (or renting 54.1% vs 29.3%).

Q18 — VC2HG10K18 — 2 marks

Mark	Look for
1 (a)	Three channels (Figure 2), each with a section example: bilateral, government to government (PNG A\$479.2 m in 2023; Indonesia programs Prospera, KIAT Guru, SKALA, SIAP SIAGA; PNG commitments — A\$150 m education and skills, A\$25 m disaster response, A\$10 m HIV support); multilateral, pooled through international organisations (Gavi — Australia gave US\$263 m across 2016–2020); non-government, through NGOs (Australian Red Cross).
1 (b)	Change stated from the JKN figure: 48% at the January 2014 launch → 75% (195 m people) by April 2018 → 83% (223 m) in 2020. The limit as the worked example draws it: JKN largely removed one regional gap — who is enrolled — while a larger gap stood: provincial wellbeing still diverges widely (Jakarta's HDI 0.8505 against Highland Papua's 0.5491, a gap of 0.3014). Coverage is not the same as quality or access.

Q19 — VC2HG10S01 — 3 marks

Mark	Look for
1 (a)	All seven: place, space, environment, interconnection, sustainability, scale, change. Six of seven = no mark (the item says seven; they recur as the concepts/criteria of Chapters 5–6).
1 (b)	All four families matched to their jobs (Figure 2): describe — What?/Where?, map the pattern in space; explain — Why?/How?, causes and processes; predict — What next?, forecast future change; evaluate — What

Mark	Look for
1 (c)	should we do?, weigh options. Accept equivalent wording; mismatches lose the mark. A testable statement, not a question — two measurable variables over named places, in the Figure 6 form: “Victorian LGAs where more residents hold a bachelor degree or higher have higher median weekly household incomes.” Accept any equivalent claim that could be checked against the seven-LGA table before looking at the data.

Q20 — VC2HG10S02 — 2 marks

Mark	Look for
1 (a)	Primary = material you collect yourself, first-hand, for your own question; secondary = material someone else collected or wrote. The satellite-image point: the family depends on who collected it and why — an image downloaded from a provider’s archive is secondary; imagery you collect for your own investigation is primary.
1 (b)	Three checks: relevance (right topic, place, scale and date — currency), reliability (who is the author, what qualifies them, can figures be checked against a second independent source), bias. Two kinds: information bias (showing only one side of an issue) and selection bias (choosing only some of the facts, leaving the rest out).

Q21 — VC2HG10S03 — 2 marks

Mark	Look for
1 (a)	Border, Orientation, Legend, Title, Scale, Source — all six.
1 (b)	Two-variable relationship → scatterplot (it plots pairs so movement-together is visible; the section’s caution “a pattern is not a rule” may be cited); parts of one whole → pie graph (the parts must add to 100 per cent). Each choice needs the Figure 1 reason, not just the name.

Q22 — VC2HG10S04 — 3 marks

Mark	Look for
1 (a)	Pattern = where things cluster or repeat in space ; trend = a direction of change over time . The space/time contrast is the mark.
1 (b)	One improved country with both values (Indonesia 25.0→14.6; Nepal 37.0→14.8; South Africa 17.1→15.1; Bangladesh 34.6→19.2; Angola 63.8→29.7) and one worsened with both values (Syria 14.8→30.6). Lower GHI is better.
1 (c)	The forecast’s conditionality: a forecast is a prediction made by a stated method and carrying stated conditions; Figure 13’s dashed path is the UN medium scenario (8.1 bn 2024 → ~9.6 bn 2050 → peak ~10.3 bn 2084 → ~10.2 bn 2100) — if the assumed conditions change, the

Mark	Look for
	path changes. Accept the section's line: a forecast without its "if" clause is a rumour; with it, a planning tool.

Q23 — VC2HG10S05 — 2 marks

Mark	Look for
1 (a)	All four moves (Figure 1): know your own position; map the perspectives; judge with concepts; defend your conclusion. The testing loop (keep asking whether the reasons really support the conclusion) may be noted but is not required.
1 (b)	All three tests (Figure 10): evidence (is the reason backed by evidence?), relevance (does it actually bear on the conclusion?), weighing (does it outweigh the reasons on the other side?). A reason justifies only if all three pass.

Q24 — VC2HG10S06 — 2 marks

Mark	Look for
1 (a)	Environmental, economic, social — the three criteria section 6B evaluates against (the same three lenses the book uses throughout).
1 (b)	Strategy C — reducing food waste (the only strategy rated Strong on both environmental and economic). The explanation: no strategy is Strong on all three (A is Strong on social only; B on social and economic; C on environmental and economic), so "best" depends on which criteria you weight most heavily — and the weighting must be stated, or the ranking is a preference, not an argument.

Q25 — VC2HG10S07 — 2 marks

Mark	Look for
1 (a)	The three moves (Figure 4): Move 1 — the finding as published; Move 2 — the finding incorporated into your own sentence with an in-text source acknowledgement; Move 3 — the matching reference-list entry with its retrieval date.
1 (b)	Any two contrasts from the tone figure (Figure 6): the casual version uses sweeping claims and slang; the authoritative version ties claims to dated, sourced figures; the authoritative version admits its limits; the casual version does not. (The section's operational sense: claims tied to evidence, dates and sources.)

Q26 — VC2HG10S06 (cross-chapter synthesis) — 4 marks

Mark	Look for
1 (a)	One piece of evidence correctly attributed to a section and figure/table. Accept anything real in the book, e.g.: 645 m people faced hunger in 2025 (7.8% of the world — section 1D, hunger chart); ~2.7 bn cannot afford a

Mark	Look for
	healthy diet (1D); ~831 m people below the US\$3.00/day line by 2025 (section 4A, Figure 8); Loddon's median income is ~59% of Victoria's (section 4C, Figure 8); ~931 m tonnes of food wasted a year, 61% of it by households (section 6B). The attribution is part of the mark.
1 (b)	A strategy evaluated against ALL THREE criteria — environmental, economic and social — with a line on each. If the student uses a scorecard strategy, the section's ratings should be engaged (or argued against with reasons); a proposed strategy is fine if all three criteria get real treatment.
1 (c)	A recommendation justified with at least two of the seven concepts, each named and doing work: e.g. scale (households generate 61% of waste, so action reaches every home); interconnection (food wasted in one place consumed land and water in another); sustainability (less waste lowers pressure on biomes); place (programs must fit local conditions); change (waste flows respond to policy and price). Concepts named + connected to the recommendation = mark.
1 (d)	A prediction with a stated "because" AND a weakness that could falsify it — the section 6B rule that a prediction is a reasoned claim, not a hope. The weakness must be real (e.g. saved food may be exported rather than replacing new production; behaviour change may fade after campaigns end — the follow-through problem of section 6B).

Synthesis note: Q26 is marked on the pull-together — chapters connected, evidence attributed, criteria applied, concepts doing work, prediction owned with its weakness. There is no prescribed strategy; a well-reasoned answer on any strategy can earn all four marks.

Mark record

Part	Chapter	Questions	Marks	Score
Part 1	Biomes and food security	Q1–Q5	10	
Part 2	Geographies of interconnection	Q6–Q9	10	
Part 3	Environmental change and management	Q10–Q13	10	
Part 4	Geographies of human wellbeing	Q14–Q18	10	
Part 5	Skills: geographical inquiry	Q19–Q22	10	
Part 6	Skills: concluding, decision-making and communicating	Q23–Q26	10	
Total		Q1–Q26	60	

Solutions — fully worked, in paper order

These solutions follow the paper item by item. Provenance is given for every value: section, then figure or table. Nothing here introduces data from outside the book — each model answer can be checked against the section it cites. Because the paper is open-book, model answers quote the book's own wording where it defined a term; students may use equivalent wording.

Q1 (2 marks · VC2HG10K01 · section 1A)

- (a) A biome is a large region of the Earth with its own climate (the long-run pattern of temperature, rainfall and seasons), its own vegetation (the main kinds of plants that grow there), and its own biomass productivity — the rate at which new living material is made. (*Section 1A, first-use definition.*)
- (b) Net primary productivity (NPP) is the rate at which the plants of a biome build new biomass: the mass of new plant growth left over each year after the plants have used some of the energy they capture to keep themselves alive. It is *primary* because plant growth comes first in the food chain, and *net* because the plants' own use is subtracted. NPP is the ceiling on how much food, fibre and plant material a biome can supply. (*Section 1A, first-use definition; Figure 1's chain — climate → vegetation → biomass → NPP → food.*)

Q2 (2 marks · VC2HG10K01 · section 1A)

- (a) From Figure 2, the most productive land biome is tropical rainforest (mean NPP about 2,200 g/m²/yr) and the least productive is desert (about 90 g/m²/yr).
- (b) Land produces more NPP per square metre. Figure 3 (after Field et al. 1998, as cited in section 1A) puts the ocean over 71% of the Earth's surface but only 46% of annual NPP, against land's 29% of surface contributing 54% — so productivity per unit area is far higher on land, which Figure 2 confirms (open ocean averages about 125 g/m²/yr against tropical rainforest's 2,200).

Q3 (2 marks · VC2HG10K02 · section 1B)

- (a) Environmental factors (climate, soil, landforms, water), economic factors (accessibility, labour, costs, prices) and technological factors (irrigation, high-yielding variety seed, genetically modified crops, machinery, fertilisers). (*Section 1B's three factor families.*)
- (b) Indonesia's rice yields roughly doubled — the chart in section 1B runs from 2.14 t/ha to 4.23 t/ha by 1989 — after farmers adopted high-yielding variety (HYV) rice; by the mid-1980s about 85% of rice farmers had adopted. (*Section 1B, rice-yield chart.*)

Q4 (2 marks · VC2HG10K03 · section 1C)

- (a) Sustainability is “meeting the needs of the present without reducing the ability of future generations to meet their own needs” — the 1987 Brundtland definition used in section 1C (and restated in sections 2C and 3A).
- (b) Section 1C judges farming on three pillars — economic, social and environmental. A profitable farm scores on the economic pillar alone; if it is ruining its soil it fails the environmental pillar, and because every future harvest depends on that soil, it hollows out the social and economic pillars over time. It meets present needs by reducing future generations' ability to meet theirs — the exact thing the definition in (a) rules out.

Q5 (2 marks · VC2HG10K04 · section 1D)

- (a) Availability, access, utilisation and stability. (*Section 1D, four-pillars figure.*)
- (b) On numbers the two regions are close: 309 million people faced hunger in Africa and 292 million in Asia in 2025. On shares they are far apart: 56.6% of Africa's population against 20.3% of Asia's. The share is the more severe measure — in Africa hunger touches more than one person in two, while in Asia it touches about one in five, because Asia's population is so much larger. (*Section 1D, hunger-by-region chart.*)

Q6 (2 marks · VC2HG10K05 · section 2A)

- (a) The road from Mildura to Melbourne is 529.8 km and takes about 6.7 hours to drive; the straight-line distance is only about 456 km, and a regional flight covers it in about an hour. The kilometres do not change — the time needed to cross them does. Faster transport shrinks the effective distance between places, which is what “distance is fixed; the time to cross it is not” means. (Section 2A, opening comparison.)
- (b) From the “Who is online?” chart (2025): high-income internet use 94% against low-income 23% — a gap of 71 percentage points. Section 2A defines gaps of this kind as the **digital divide** (ITU sense). Note the unit: percentage points, not per cent — the convention the section’s worked example uses.

Q7 (3 marks · VC2HG10K06 · section 2B)

- (a) Shenzhen grew from about 0.3 million permanent residents in 1980 — the year it was made a special economic zone — to about 17.6 million in 2020, more than a 50-fold rise. Most of the new residents were young adults who moved from rural China: migrant workers (China’s statistics bureau counted about 297 million migrant workers nationally in 2023). (Section 2B, Figure 1 and text.)
- (b) Manufacturing’s share of Australian employment fell from about 25% in 1965 to about 6% in 2023 — from roughly one worker in four to about one in seventeen. (Section 2B, Figure 6.)
- (c) The timeline shows trade change cutting both ways in one place. It hurt: Alcoa’s Point Henry aluminium smelter closed in February 2014; Shell’s refinery was converted to an import terminal (announced April 2014, completed 2015); and Ford ended Australian manufacturing in October 2016, closing 90 years of engine making. It helped — or at least the city kept growing: Geelong’s population rose from about 233,000 in 2016 to about 268,000 in 2021. Jobs were lost and displaced while the place gained people: the impacts of trade land unevenly, even inside one city. (Section 2B, Figure 11.)

Q8 (2 marks · VC2HG10K07 · section 2C)

- (a) Embodied carbon is the emissions released to make a product, move it, and (for fuels) burn it — carried in the product, so that when goods are traded, embodied carbon is traded too. (Section 2C, first-use definition.)
- (b) Australia’s counted territorial inventory is 458.9 Mt CO₂-e; the coal and LNG it exported will release about 1,065 Mt of CO₂ when burned overseas — about 2.3 times the whole inventory (Figure 8, with the calculation in Figure 9). Figure 7 shows the same verdict year by year: the production-based line sits above the consumption-based line in every year, so Australia is a **net exporter** of embodied carbon.

Q9 (3 marks · VC2HG10K08 + VC2HG10K09 · sections 2D and 2E)

- (a) Section 2D treats overtourism as “more visitors than a place can host without harm to the people who live there or to the place itself”. The section notes the term is contested and that the curriculum does not define it.
- (b) The three diffusion models are contagious (spreading outward neighbour by neighbour), hierarchical (large cities first, then regional centres, then small towns) and relocation (moving with a person from A to B, then spreading). The first-case map fits hierarchical best: from Wuhan the virus appeared within weeks in nine big, well-connected world cities — Bangkok 13 January, Tokyo 16 January, Los Angeles 21 January, Paris and Melbourne by late January 2020 — carried by air routes to major hubs before spreading outward. (Section 2E, Figures 2 and 5.)
- (c) The same web carries both. A music trend travelled on digital networks (fans sharing “Gangnam Style” overseas until it became the first YouTube video to reach a billion views) and on travel (the people and media that followed). Venice’s visitor flows ride the same two routes: international air and cruise travel physically carries up to 85,000 day-trippers on peak days, and digital networks book, review and amplify the trip. The cargo differs — a song, a virus, a visitor — but the web of travel, trade and digital networks is the same. One shared route: international air travel. (Sections 2D and 2E.)

Q10 (2 marks · VC2HG10K10 · section 3A)

- (a) Source, services, sink and spiritual. (*Section 3A, Figure 1 — the four functions used as criteria for judging the sustainability of places.*)
- (b) The sink function failed. A sink is an environment's capacity to absorb wastes; the mine fire poured smoke and ash over Morwell for weeks, past what the air could absorb, and vulnerable people in Morwell South were advised to relocate over PM2.5 (fine particles). Dated details available on the timeline: the fire began 9 February 2014 in a disused part of the open-cut mine; it was declared controlled 10 March 2014, about four weeks later; the 2016 Hazelwood Mine Fire Inquiry linked 11 early deaths to it. (*Section 3A, Figure 6.*)

Q11 (2 marks · VC2HG10K11 · section 3B)

- (a) A biophysical process is a natural physical process that shapes the issue — at the Bass Coast, waves, swash and backwash, longshore drift and storm surge moving sand. An underlying cause is a slower human force built up over time beneath the surface — buildings standing close to the dune, rising beachside demand, emissions driving sea-level rise. Immediate processes do the damage; underlying causes explain why the damage matters where it happens. (*Section 3B, causes web.*)
- (b) Biophysical (one): winter storm waves and surge strip sand faster than calm seasons return it — a sand budget in deficit; or longshore drift carrying sand along and off the coast; or a higher sea lifting every surge (global mean sea level has risen over 22 cm since 1900). Underlying (one): homes, the road and the surf club built close to the dune; or population growth — Bass Coast Shire up 24.3% between the 2016 and 2021 censuses — raising beachside demand; or protection works that change how sand moves. (*Section 3B, Figure 5; Figures 4 and 6 for the values.*)

Q12 (3 marks · VC2HG10K12 · section 3C)

- (a) Custodial responsibility is the duty people feel to look after an environment and keep it healthy, not just to use it, so that it is still there for the people who come after them. A custodian is a person or body that looks after something that is not theirs to use up. (*Section 3C's fixed working definition; the broader term is flagged as contested.*)
- (b) Any two of the four families, each with a section example: community land stewardship — Landcare working bees on weeds and rubbish, Dunecare groups, the Yellingbo community nursery; conservation organisations — Friends of the Helmeted Honeyeater, Zoos Victoria, BirdLife Australia; government park management — Parks Victoria, caring for more than 4 million hectares “for current and future generations”; private landholders — Trust for Nature covenants, more than 1,700 covenants protecting over 82,000 hectares. (*Section 3C, four-family figure; private-land figure.*)
- (c) The counted wild population stood at 167 in 1967 and fell to a low of 50 by 1990 — the chart marks the 1983 Ash Wednesday fires on the way down — before recovering to about 240 by March 2020 (and dipping below 200 by March 2022). Care turned the arc around: the Friends group was founded in May 1989, and in May 2025 the recovery team released 21 captive-bred birds at Cardinia Creek to begin a third wild population. (*Section 3C, helmeted honeyeater chart.*)

Q13 (3 marks · VC2HG10K13 + VC2HG10K14 · sections 3D and 3E)

- (a) Human-centred, eco-centred and Earth-centred. Section 3D stresses they are thinking tools, not teams — most people hold a mix.
- (b) A human-centred judgement starts from people: safety, homes and livelihoods come first, so the seawall at Rotary Park is worth building — it protects the picnic area and the foreshore assets now. An Earth-centred judgement starts from the driver: cut emissions and stop building on land the sea is reclaiming, because “walls fight the sea one storm at a time, and every defence is temporary unless the driver changes” — so retreat and limits take priority over the wall. Same facts, different worldviews, different support: the disagreement begins at step 1 of section 3D's chain. (*Section 3E, Figure 10; section 3D, Figure 13.*)
- (c) From the scorecard: the engineered wall rates Mixed on environmental, Strong on social, Mixed on economic; soft works (wet-sand fencing, renourishment, revegetation) rate Strong, Strong, Mixed; managed retreat rates Strong, Mixed, Mixed. No family is Strong on all three, so whichever strategy a manager picks, a criterion is

traded away — the wall gives up environmental strength, retreat gives up social and economic strength. The choice therefore depends on the weight given to each criterion and each place: management is a judgement, not a lookup. (*Section 3E, Figure 9.*)

Q14 (2 marks · VC2HG10K15 · section 4A)

- (a) A long and healthy life (measured by life expectancy at birth), knowledge (measured by years of schooling), and a decent standard of living (measured by GNI per capita in purchasing-power-parity dollars). (*Section 4A; the components appear in Figure 2's worked calculation.*)
- (b) From Figure 1's five measures, the money-only ones are GDP per capita and GNI per capita. Either, with one thing it misses that the section states: it says nothing about health or education outcomes, nothing about how income is distributed (inequality), nothing about environmental quality, and nothing about safety and freedom — which is why section 4A works up to the HDI and beyond it.

Q15 (2 marks · VC2HG10K15 · section 4A)

- (a) Australia sits in the very high category in 2023 (HDI 0.958, rank 7 of 193). From Figure 4, the low-category country is South Sudan (HDI 0.388, rank 193).
- (b) China shows the fastest rise in Figure 6 — its HDI climbed by 0.306 between 1990 and 2023. But “rising trend lines do not, by themselves, close gaps”: a country rising quickly from a low base can still sit far below countries rising slowly from a high one — what matters is the distance between the lines. The book's own illustrations: Bangladesh rose 0.288 over the same period yet only reached 0.685 in 2023, level with India and far below Australia's 0.958; and section 6C notes that PNG's entire 33-year gain (+0.173) is smaller than the 0.382 gap that still separates it from Australia.

Q16 (2 marks · VC2HG10K17 · section 4C)

- (a) An IRSAD score of 1000 is the Australian average. SEIFA scores are standardised so the national average sits at 1000; scores above it are relatively advantaged, scores below relatively disadvantaged. (*Section 4C, SEIFA rules figure.*)
- (b) At LGA scale, the City of Greater Geelong scores 989.6 — decile 8, relatively advantaged (Figure 7). At small-area scale, 116 of its 621 SA1s, about 19%, sit in the most disadvantaged deciles 1–2 (Figure 9). So the claim “Greater Geelong is relatively advantaged” is true at the LGA scale and false at the SA1 scale for a fifth of the city: averages hide pockets, and a finding can be true at one scale and false at another. (*Section 4C's scale lesson.*)

Q17 (2 marks · VC2HG10K17 · section 4C)

- (a) Norlane and Newtown, two suburbs of the City of Greater Geelong about 7 km apart. Newtown has the higher median weekly household income: \$2,092 against Norlane's \$909 — a ratio of 2.3 times. (*Section 4C, Figure 4, QuickStats data.*)
- (b) The five cause families are economic, social, technological, political and environmental (named in section 4C from VC2HG10K16.E01). Evidence pairings from Figure 4, any two: economic — unemployment 10.5% in Norlane against 3.6% in Newtown, or the income ratio 2.3×; social — bachelor degree or higher 9.6% against 40.6% (a ratio of 4.2×), or renting 54.1% against 29.3%. Each family needs one figure from the table pointed at it; the reasons web (Figure 10) then treats the families as causes that feed each other in a cycle, not a destiny.

Q18 (2 marks · VC2HG10K18 · section 4D)

- (a) Section 4D's three channels, each with an example: bilateral aid, government to government — Papua New Guinea received A\$479.2 m in 2023, with named commitments of A\$150 m for education and skills, A\$25 m for disaster response and A\$10 m for HIV support, and Indonesian programs Prospera, KIAT Guru, SKALA and SIAP SIAGA; multilateral aid, pooled through international organisations — Australia gave Gavi US\$263 m across 2016–2020; and non-government aid through NGOs — Australian Red Cross. (*Section 4D, Figure 2.*)
- (b) JKN, Indonesia's national health insurance, covered 48% of the population at its January 2014 launch, 75% (195 million people) by April 2018 and 83% (223 million) by 2020. The worked example's limit: enrolment largely removed one regional gap — who is covered — while a larger one stood: provincial wellbeing still diverges widely, with Jakarta's HDI at 0.8505 against Highland Papua's 0.5491, a gap of 0.3014 (Figure 4). Coverage is not the same as quality of care or access to it.

Q19 (3 marks · VC2HG10S01 · section 5A)

- (a) Place, space, environment, interconnection, sustainability, scale and change. A question is geographical, section 5A says, when at least one of the seven does the work inside it.
- (b) Describe does “What?/Where?” — it maps the pattern in space; explain does “Why?/How?” — it finds causes and processes; predict does “What next?” — it forecasts future change; evaluate does “What should we do?” — it weighs options. One question can only do one job, which is why an inquiry needs a range. (*Section 5A, Figure 2.*)
- (c) The question becomes a claim you can check before looking at the data. Section 5A's own form (Figure 6): “Victorian LGAs where more residents hold a bachelor degree or higher have higher median weekly household incomes.” Any equivalent testable statement earns the mark — two measurable variables, named places, written as a statement, not a question.

Q20 (2 marks · VC2HG10S02 · section 5B)

- (a) A primary source is material you collect yourself, first-hand, for your own question; a secondary source is material someone else collected or wrote. The same item can change families depending on who collected it and why: a satellite image downloaded from a provider's archive is secondary, while imagery collected for your own investigation is primary — exactly as a downloaded map is secondary but your own field sketch is primary. (*Section 5B, Key idea 1 and Figure 1.*)
- (b) The three checks are relevance (right topic, place, scale and date — including currency), reliability (who is the author, what qualifies them, do they reference other experts, can the figures be checked against a second, independent source?) and bias. The two kinds of bias are information bias — showing only one side of an issue — and selection bias — choosing only some of the facts while leaving the rest out. Section 5B applies the checklist symmetrically, to sources you agree with and sources you do not. (*Section 5B, Figures 7 and 8.*)

Q21 (2 marks · VC2HG10S03 · section 5C)

- (a) Border, Orientation, Legend, Title, Scale, Source — the six cartographic conventions every map needs. Without a scale the reader cannot judge distance, without a legend the colours mean nothing, and without a source the data cannot be checked. (*Section 5C, Figure 2.*)
- (b) A relationship between two variables is best shown by a scatterplot: it plots the pairs so you can see whether the variables move together — with the section's caution that “a pattern is not a rule” (exceptions like Sri Lanka are part of the reading). The parts of one whole are best shown by a pie graph, which is only honest when the parts add to 100 per cent — like the freshwater-withdrawals example (agriculture ~72%, industry and energy ~15%, households ~13%). (*Section 5C, Figures 1, 8 and 9.*)

Q22 (3 marks · VC2HG10S04 · section 5D)

- (a) A pattern is where things cluster or repeat in space; a trend is a direction of change over time. The contrast is spatial versus temporal: the hunger cluster in sub-Saharan Africa is a pattern; Bangladesh's GHI falling from 34.6 to 19.2 is a trend. (*Section 5D's term rules.*)
- (b) Improved — any one with both values: Indonesia 25.0 → 14.6; Nepal 37.0 → 14.8; South Africa 17.1 → 15.1; Bangladesh 34.6 → 19.2; Angola 63.8 → 29.7. Worsened: Syria 14.8 → 30.6 — the section's note is that war reversed two decades of progress. Lower GHI scores are better. (*Section 5D, Figure 6.*)
- (c) A forecast differs from a prediction because it is made by a stated method and carries stated conditions. Figure 13's dashed path is the UN medium scenario — 8.1 billion in 2024, about 9.6 billion in 2050, a peak near 10.3 billion in 2084, about 10.2 billion in 2100 — and it holds only if the scenario's assumptions hold; if conditions change, the path changes. That is why the figure is titled “a forecast is a conditional statement, not a certainty”, and why section 5D says a forecast stated without its “if” clause is a rumour; stated with it, it is a tool for planning.

Q23 (2 marks · VC2HG10S05 · section 6A)

- (a) The four moves: know your own position (name the values and attitudes shaping your first response); map the perspectives (different groups see the same issue differently, and each has reasons); judge with concepts (test the options against at least two of the seven geographical concepts used as criteria); defend your conclusion (give reasons that survive testing). The model's loop — keep asking whether the reasons really support the conclusion — runs underneath all four. (*Section 6A, Figure 1.*)
- (b) The three tests: evidence — is the reason backed by evidence?; relevance — does it actually bear on the conclusion?; weighing — does it outweigh the reasons on the other side? A reason justifies a conclusion only if all three tests pass. (*Section 6A, Figure 10.*)

Q24 (2 marks · VC2HG10S06 · section 6B)

- (a) Environmental, economic and social — the three criteria of the scorecard, and the three lenses the book uses throughout.
- (b) Strategy C — reducing food waste — is the only strategy rated Strong on both the environmental and the economic criterion (Strong, Strong, with social the weaker column). “Which strategy is best?” has no answer until the weights are stated, because no strategy is Strong on all three: A (emergency relief) is Strong on social only; B (sustainable intensification) is Strong on social and economic. If you weight the environment most, C wins; if you weight immediate social need most, A wins. The ranking follows the weighting — which is why section 6B requires the justification to say how the criteria were weighed, or the choice is a preference, not an argument. (*Section 6B, Figure 4.*)

Q25 (2 marks · VC2HG10S07 · section 6C)

- (a) Move 1: the research finding as published. Move 2: the finding incorporated into your own sentence, with an in-text source acknowledgement. Move 3: the matching reference-list entry, with its retrieval date. The Venice model runs all three on one finding. (*Section 6C, Figure 4.*)
- (b) Any two contrasts from the tone figure: the casual version makes sweeping claims and uses slang; the authoritative version ties every claim to dated, sourced figures; the authoritative version admits its limits; the casual version does not. In the section's operational sense, an authoritative tone means claims tied to evidence, dates and sources — it earns trust rather than demanding it. (*Section 6C, Figure 6.*)

Q26 (4 marks · VC2HG10S06 · cross-chapter synthesis)

A model answer, showing the pull-together the item asks for. Other strategies and other evidence can earn full marks if the four jobs are done.

- (a) Evidence, correctly attributed: about 931 million tonnes of food are wasted each year, and 61% of that waste comes from households (UNEP 2021, as cited in section 6B’s food-waste figure). Or, from Chapter 1: 645 million people faced hunger in 2025 — 7.8% of the world — while the world is not on track for the 2030 zero-hunger goal (section 1D, hunger chart; section 6B, Figure 3 restates the gaps).
- (b) Evaluate Strategy C — reducing food waste — against all three criteria. Environmental: Strong — food wasted never needed to be grown, so the land, water and emissions behind it (Chapter 1’s constraints) were spent for nothing. Economic: Strong — households and businesses save money, and cutting waste is cheaper than building new production capacity. Social: the weaker column — wasted food saved does not automatically reach the hungriest, because hunger in Chapter 1’s four pillars is mostly an access problem, not an availability problem; distribution has to be designed in.
- (c) Recommend it, with at least two concepts doing work. *Scale*: because 61% of waste arises in households, action reaches every home at once — the biggest single lever in the chain. *Interconnection*: food wasted in one place consumed land, water and transport in others, so a cut ripples back through the whole supply chain (Chapter 2’s trade webs). *Sustainability*: less waste lowers the pressure Chapter 3 measures — clearing, water use, emissions — without asking anyone to produce less food. Two named concepts, connected to the recommendation, earn the mark.
- (d) Prediction with its because and its weakness: “If household food waste falls by a tenth, pressure to clear new farmland will ease, because less new production will be needed to feed the same population (Chapter 1’s demand figures). Weakness: the prediction assumes saved food replaces new production — but it may instead be exported or simply wasted further along the chain, and behaviour change can fade once campaigns end, which is the follow-through problem section 6B names for grass-roots action.” A prediction without a weakness is not yet a prediction in section 6B’s sense; both halves are required.

End of solutions — paper total 60 marks.