

Answer Key & Explanations

Academic Reading Paper 22 — Sewers, Seismograms and Hindsight

Mark your answer sheet before you read this

HOW TO USE THIS

- Mark one point for each correct answer. Spelling must be correct.
- Convert your total with the band table on the next page.
- Then read the explanation for **every** question you got wrong, and for every one you guessed. The explanation names the mechanism the wrong answer was built on.

The band figure is an estimate. A real paper is pre-tested on thousands of candidates and these have not been, so read the band as a position, not a prediction.

Q	Answer	Code	Mechanism	Where
1	TRUE	R	Straight retrieval — no trap	Paragraph 1.
2	FALSE	C1	Overstatement — hedge removed	Paragraph 2.
3	NOT GIVEN	B4	Cause supplied by the reader	Paragraph 3.
4	FALSE	R	Straight retrieval — no trap	Paragraph 4.
5	eighty-two / 82 / eighty two	R	Straight retrieval — no trap	Paragraph 5.
6	eighteen / 18	F4	Prose re-sorted into a table; column order $\neq$ passage order	Paragraph 5.
7	cement	A1	Quantity re-attached to another noun	Paragraph 5.
8	acres	R	Straight retrieval — no trap	Paragraph 5.
9	doubled / doubled it	E2	Answer sits after its own distractor	Paragraph 6.
10	once	R	Straight retrieval — no trap	Paragraph 6.
11	pumping stations	E1	Synonym substitution, passage keyword parked on a decoy	Paragraph 4.
12	connected	A7	Time relation reversed	Paragraph 7.
13	smell	F2	Word limit decides which words are the answer	Paragraph 8.
14	G	F1	Answers out of order + repeats allowed	Section G.
15	C	F1	Answers out of order + repeats allowed	Section C.
16	B	D1	Statement moved from another paragraph	Section B.
17	E	F1	Answers out of order + repeats allowed	Section E.
18	C	D2	Intermediate actor named beside the originator	Sections B and D.
19	B	R	Straight retrieval — no trap	Section C.
20	D	R	Straight retrieval — no trap	Section F.

Q	Answer	Code	Mechanism	Where
21	A	A5	Wrong agent for the action	Section B.
22	crust / the crust	R	Straight retrieval — no trap	Section C.
23	core / the core	E4	Minimal-pair options	Section D.
24	inner core	R	Straight retrieval — no trap	Section F.
25	shadow / the shadow	R	Straight retrieval — no trap	Sections D and F.
26	compressional	E4	Minimal-pair options	Sections D and E.
27	NO	C2	The extreme version the writer explicitly refused	Paragraph 5.
28	YES	R	Straight retrieval — no trap	Paragraph 3.
29	NOT GIVEN	A2	Scope widened or narrowed by dropping a qualifier	Paragraphs 1 and 2.
30	NO	R	Straight retrieval — no trap	Paragraph 8.
31	YES	B2	Adjacent proposition on the same subject	Paragraph 6.
32	A	R	Straight retrieval — no trap	Paragraphs 2 and 7.
33	B	E1	Synonym substitution, passage keyword parked on a decoy	Paragraph 3.
34	G	R	Straight retrieval — no trap	Paragraph 4.
35	E	E4	Minimal-pair options	Paragraph 4.
36	B	D1	Statement moved from another paragraph	Paragraphs 1 and 2.
37	C	C2	The extreme version the writer explicitly refused	Paragraph 4.
38	C	B1	Relation swap	Paragraph 3.
39	A	R	Straight retrieval — no trap	Paragraph 7.

40	A	C2	The extreme version the writer explicitly refused	Paragraph 8.
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Score to band

Raw score out of 40	Estimated band
39–40	9
37–38	8.5
35–36	8
33–34	7.5
30–32	7
27–29	6.5
23–26	6
19–22	5.5
15–18	5
13–14	4.5
10–12	4
8–9	3.5
6–7	3
4–5	2.5

Questions 1–4

1 **TRUE** · Paragraph 1.

'London made its river into a sewer by improving its sanitation.' The flush lavatory overwhelmed the cesspools, and the overflow was allowed into drains running to the river.

Mechanism R — Straight retrieval — no trap

2 **FALSE** · Paragraph 2.

'Snow's argument was examined and set aside', by men 'who were neither careless nor corrupt and who simply found the alternative more plausible'. Being rejected is not the same as being ignored.

Mechanism C1 — Overstatement — hedge removed

3 **NOT GIVEN** · Paragraph 3.

'There was serious discussion of moving Parliament to Oxford.' Discussing a move is not making one, and the passage never says what was decided.

Mechanism B4 — Cause supplied by the reader

4 **FALSE** · Paragraph 4.

'Rather than trying to clean the river or to carry waste down to it more efficiently, he built a set of large sewers running west to east.' The design turned the problem sideways instead.

Mechanism R — Straight retrieval — no trap

Questions 5–9

5 **eighty-two / 82 / eighty two** · Paragraph 5.

'About **eighty-two** miles of main intercepting sewers'. The thousand miles in the same sentence belongs to the smaller street sewers.

Mechanism R — Straight retrieval — no trap

6 **eighteen / 18** · Paragraph 5.

'in the region of three hundred and **eighteen** million bricks'. The table takes its rows in a different order from the paragraph, so the figure has to be found rather than followed.

Mechanism F4 — Prose re-sorted into a table; column order ≠ passage order

7 **cement** · Paragraph 5.

'Bazalgette specified Portland **cement**'. The quantity words in the neighbouring rows do not attach to this one; the answer is the material itself.

Mechanism A1 — Quantity re-attached to another noun

8 **acres** · Paragraph 5.

'reclaimed thirty-two **acres** of land in the process'.

Mechanism R — Straight retrieval — no trap

9 **doubled / doubled it** · Paragraph 6.

'calculated the diameter ... and then **doubled** it'. The calculation comes first in the sentence and is not the answer; what he did to it afterwards is.

Mechanism E2 — Answer sits after its own distractor

Questions 10–13

10 **once** · Paragraph 6.

'the work would only be done **once**'.

Mechanism R — Straight retrieval — no trap

11 **pumping stations** · Paragraph 4.

'was lifted by **pumping stations** where it did not'. The passage's word for the movement is *gravity*, which is what handled the rest and is not the answer.

Mechanism E1 — Synonym substitution, passage keyword parked on a decoy

12 **connected** · Paragraph 7.

'the only substantial area not yet **connected** to the new system'. The outbreak came after most of the works, not before them, and the sentence turns on that order.

Mechanism A7 — Time relation reversed

13 **smell** · Paragraph 8.

'the object of the works was to remove the **smell**'. Removing the sewage was the means and the accidental cure; the two-word limit will not take the whole clause.

Mechanism F2 — Word limit decides which words are the answer

Questions 14–17

14 G · Section G.

'The familiar cutaway drawing of the Earth is not a photograph and is not a scale model of anything anybody has seen.' Matching information does not run in the order of the text.

Mechanism F1 — Answers out of order + repeats allowed

15 C · Section C.

'the only one of the major boundaries that was found from a single earthquake by a man who was looking at something else'.

Mechanism F1 — Answers out of order + repeats allowed

16 B · Section B.

'He could not say what the core was made of or whether it was solid, and he did not claim to.' Section F describes a very short paper, but that is about length, not restraint.

Mechanism D1 — Statement moved from another paragraph

17 E · Section E.

'The absence of the shear waves is the more important half of that result.'

Mechanism F1 — Answers out of order + repeats allowed

Questions 18–21

18 C · Sections B and D.

About two thousand nine hundred kilometres, in 1913. Oldham, named in the section that first proposes a core, is the tempting answer; he showed there was one but not how far down it began.

Mechanism D2 — Intermediate actor named beside the originator

19 B · Section C.

Stations beyond about two hundred kilometres recorded a direct wave and a refracted one.

Mechanism R — Straight retrieval — no trap

20 D · Section F.

Faint compressional arrivals inside the shadow band, requiring a further boundary.

Mechanism R — Straight retrieval — no trap

21 A · Section B.

1906, from compressional waves arriving late beyond a certain distance. The word *first* decides it; every other person here is working on a boundary that was found afterwards.

Mechanism A5 — Wrong agent for the action

Questions 22–26

22 **crust / the crust** · Section C.

'marks the base of the **crust**'.

Mechanism R — Straight retrieval — no trap

23 **core / the core** · Section D.

'Gutenberg put the top of the **core** at about two thousand nine hundred kilometres down.' The inner core is a separate boundary found much later and lies far deeper; here the label points at the outer edge of the whole central region.

Mechanism E4 — Minimal-pair options

24 **inner core** · Section F

'The **inner core** it proposed is solid, is about the size of the Moon.'

Mechanism R — Straight retrieval — no trap

25 **shadow / the shadow** · Sections D and F

Section D describes the band; Section F names it — 'Inge Lehmann noticed something in the **shadow**'.

Mechanism R — Straight retrieval — no trap

26 **compressional** · Sections D and E.

'the **compressional** waves arrive weakly or not at all because they have been bent sharply by the core'. The shear wave is the one that enters the core and never emerges, so it cannot be the path drawn coming back out.

Mechanism E4 — Minimal-pair options

Questions 27–31

27 NO · Paragraph 5.

'It would be convenient to conclude that common sense is worthless, and that is the error waiting on the other side.' Most of what anyone knows about people is common sense, and it is usually right.

Mechanism C2 — The extreme version the writer explicitly refused

28 YES · Paragraph 3.

'people reliably remember having expected it, and they are not lying'.

Mechanism R — Straight retrieval — no trap

29 NOT GIVEN · Paragraphs 1 and 2.

The review's device is described and its argument called unanswered. What anybody said back is never mentioned.

Mechanism A2 — Scope widened or narrowed by dropping a qualifier

30 NO · Paragraph 8.

'Some social science really is trivial, and the complaint is sometimes correct rather than a symptom of hindsight. The point is not that the objection is always wrong.'

Mechanism R — Straight retrieval — no trap

31 YES · Paragraph 6.

'reliable for the cases it was built on, which are individual, immediate and local, and it degrades sharply when it is asked about systems, aggregates and the long run'.

Mechanism B2 — Adjacent proposition on the same subject

Questions 32–35

32 A · Paragraphs 2 and 7.

'every one of the six was the opposite of what the study had found' — the **inverse**, in the passage's later word for the same device.

Mechanism R — Straight retrieval — no trap

33 B · Paragraph 3.

'the sensation of obviousness carries so much **confidence** and so little information'.

Mechanism E1 — Synonym substitution, passage keyword parked on a decoy

34 G · Paragraph 4.

'the **narration** is mistaken for a prediction that was never made'. *Prediction* is the word in the same clause and is the thing the narration is confused *with*.

Mechanism R — Straight retrieval — no trap

35 E · Paragraph 4.

'Anything asserted as common sense arrives already **immune**, because to question it is to look slow.'

Mechanism E4 — Minimal-pair options

Questions 36–40

36 B · Paragraphs 1 and 2.

'If a finding and its exact inverse both feel like common sense, then the feeling is not evidence about the world.' C is the objection he sets up in order to destroy, and it is stated in his own voice in the first paragraph, which is what makes it tempting.

Mechanism D1 — Statement moved from another paragraph

37 C · Paragraph 4.

Paragraph 4 names that as how false claims are protected. A, B and D are all positions the passage holds.

Mechanism C2 — The extreme version the writer explicitly refused

38 C · Paragraph 3.

'subjects consistently report a figure closer to what happened than the one they actually gave'. D keeps the mechanism and reverses its direction.

Mechanism B1 — Relation swap

39 A · Paragraph 7.

'There is also a defence against it that costs almost nothing. Write the prediction down before the result is known.'

Mechanism R — Straight retrieval — no trap

40 A · Paragraph 8.

Stated in the final sentence. B and D are refused in the same paragraph, and C is refused in paragraph 5.

Mechanism C2 — The extreme version the writer explicitly refused