

Answer Key & Explanations

Academic Reading Paper 21 — Nitrogen, Colour and Libraries

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	carbon	R	Straight retrieval — no trap	Paragraph 4.
2	iron	F4	Prose re-sorted into a table; column order ≠ passage order	Paragraph 5.
3	holes	R	Straight retrieval — no trap	Paragraph 5.
4	supply	A1	Quantity re-attached to another noun	Paragraph 6.
5	potash	E2	Answer sits after its own distractor	Paragraph 6.
6	TRUE	R	Straight retrieval — no trap	Paragraph 2.
7	FALSE	C1	Overstatement — hedge removed	Paragraph 2.
8	NOT GIVEN	B4	Cause supplied by the reader	Paragraphs 2 and 3.
9	FALSE	R	Straight retrieval — no trap	Paragraph 6.
10	formulations	R	Straight retrieval — no trap	Paragraph 6.
11	1913	E1	Synonym substitution, passage keyword parked on a decoy	Paragraph 6.
12	bacteria	A6	Direction of change reversed	Paragraph 7.
13	gas	F2	Word limit decides which words are the answer	Paragraph 7.
14	i	E4	Minimal-pair options	Section A.
15	iii	E4	Minimal-pair options	Section B.
16	v	E4	Minimal-pair options	Section C.
17	vi	E4	Minimal-pair options	Section D.
18	viii	E4	Minimal-pair options	Section E.
19	vii	R	Straight retrieval — no trap	Section F.
20	ix	E4	Minimal-pair options	Section G.

Q	Answer	Code	Mechanism	Where
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21	siniy	R	Straight retrieval — no trap	Section E.
22	digits	E1	Synonym substitution, passage keyword parked on a decoy	Section F.
23	judgement / judgment	R	Straight retrieval — no trap	Section F.
24	hemisphere	F3	Grammatical fit — tense, number, comparative	Section F.
25	B	D2	Intermediate actor named beside the originator	Section C.
26	C	D1	Statement moved from another paragraph	Section G.
27	NO	C2	The extreme version the writer explicitly refused	Paragraphs 1 and 6.
28	YES	R	Straight retrieval — no trap	Paragraph 6.
29	NOT GIVEN	A2	Scope widened or narrowed by dropping a qualifier	Paragraph 2.
30	NO	R	Straight retrieval — no trap	Paragraph 4.
31	YES	B2	Adjacent proposition on the same subject	Paragraph 5.
32	NOT GIVEN	C3	A conditional fact stated as universal	Paragraphs 2, 6 and 7.
33	coffee	R	Straight retrieval — no trap	Paragraph 3.
34	afford	E2	Answer sits after its own distractor	Paragraph 5.
35	question	R	Straight retrieval — no trap	Paragraph 5.
36	accountable	A5	Wrong agent for the action	Paragraph 4.
37	B	D1	Statement moved from another paragraph	Paragraph 2.
38	C	C2	The extreme version the writer explicitly refused	Paragraph 5.
39	B	B3	Superlative moved to another dimension	Paragraph 4.
40	A	C2	The extreme version the writer explicitly refused	Paragraph 8.

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 1–5

1 **carbon** · Paragraph 4.

'stripping the **carbon** out of it, so the tubes did not merely wear out'.

Mechanism R — Straight retrieval — no trap

2 **iron** · Paragraph 5.

'an inner liner of soft, almost carbon-free **iron**'. The table re-sorts the paragraph: the steel in this row is the outer jacket, not the liner.

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

3 **holes** · Paragraph 5.

'Bosch drilled small **holes** through the outer jacket to let it escape rather than accumulate.'

Mechanism R — Straight retrieval — no trap

4 **supply** · Paragraph 6.

'had used a substantial fraction of the world's **supply**'.

Mechanism A1 — Quantity re-attached to another noun

5 **potash** · Paragraph 6.

'with small quantities of alumina and **potash** added'. Alumina is given to you in the stem; the answer is the second item, after it.

Mechanism E2 — Answer sits after its own distractor

Questions 6–9

6 **TRUE** · Paragraph 2.

'he named the solution before anybody could perform it: the fixation of atmospheric nitrogen'.

Mechanism R — Straight retrieval — no trap

7 **FALSE** · Paragraph 2.

'He was wrong about the date and right about the problem.' The statement keeps the half the paragraph denies.

Mechanism C1 — Overstatement — hedge removed

8 **NOT GIVEN** · Paragraphs 2 and 3.

Crookes states the problem in 1898 and Haber solves it in 1909, in consecutive paragraphs. The passage never connects the two, and putting them side by side is not the same as saying one caused the other — the causal link is supplied by the reader.

Mechanism B4 — Cause supplied by the reader

9 **FALSE** · Paragraph 6.

'which are useless as catalysts themselves and make the iron work far better than iron alone'.

Mechanism R — Straight retrieval — no trap

Questions 10–13

10 **formulations** · Paragraph 6.

'around two and a half thousand different **formulations**'.

Mechanism R — Straight retrieval — no trap

11 **1913** · Paragraph 6.

'The first factory opened at Oppau in September **1913**.' 1909 is the bench demonstration and 1898 is Crookes; both are in the passage and neither is this.

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

12 **bacteria** · Paragraph 7.

'more than all the **bacteria** in all the world's soils together manage'. The sentence compares the process with something larger than itself, and the direction of that comparison is what the question is testing.

Mechanism A6 — Direction of change reversed

13 **gas** · Paragraph 7.

'takes its hydrogen mostly from natural **gas**'. Coal gas appears in the first paragraph as an old source of ammonia, not of hydrogen, and the two-word limit will not stretch to the whole phrase.

Mechanism F2 — Word limit decides which words are the answer

Questions 14–20

14 i · Section A.

'everyone could supply an example of a language that divided things oddly, and nobody had to supply a counter-example'. Heading ii says the counter-examples existed and were ignored, which is a different and stronger charge.

Mechanism E4 — Minimal-pair options

15 iii · Section B.

'What they reported was not arbitrariness but a sequence.'

Mechanism E4 — Minimal-pair options

16 v · Section C.

'It was a clean result, it fitted Berlin and Kay, and it was taken as closing the question.' Heading vi describes what Section D then did to it.

Mechanism E4 — Minimal-pair options

17 vi · Section D.

'For nearly thirty years that was the settled position, and then it stopped being settled.'

Mechanism E4 — Minimal-pair options

18 viii · Section E.

Russian divides blue where English does not — 'an ordinary boundary in an unexpected place'.

Mechanism E4 — Minimal-pair options

19 vii · Section F.

'Two details of that experiment matter more than the headline.'

Mechanism R — Straight retrieval — no trap

20 ix · Section G.

'both of the original positions were wrong, and the useful description is narrower than either'.

Heading x is what the section explicitly does not say: Berlin and Kay's contribution stands, but only part of it.

Mechanism E4 — Minimal-pair options

Questions 21–24

21 **siniy** · Section E.

'goluboy and **siniy** are separate basic terms for the lighter and darker ranges'.

Mechanism R — Straight retrieval — no trap

22 **digits** · Section F.

'made to hold a string of **digits** in mind while judging'. The spatial task named in the same sentence is the condition in which the advantage survived.

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

23 **judgement / judgment** · Section F.

'it is doing it during the **judgement** rather than having reshaped the eye in childhood'.

Mechanism R — Straight retrieval — no trap

24 **hemisphere** · Section F.

'the language areas in the left **hemisphere**'. The gap follows *the left*, so the answer is the noun that phrase needs, not the areas themselves.

Mechanism F3 — Grammatical fit — tense, number, comparative

Questions 25–26

25 **B** · Section C.

'they learned the names for the best examples of red, blue and green faster than names for chips at the edges'. D borrows the sequence from the researchers named in the section before, who are not the ones who did this study.

Mechanism D2 — Intermediate actor named beside the originator

26 **C** · Section G.

'The effect is real, it is small, it is measured in tens of milliseconds.' A is the position the final section exists to refuse: 'Nobody lives in a different world.'

Mechanism D1 — Statement moved from another paragraph

Questions 27–32

27 NO · Paragraphs 1 and 6.

That is named in the first paragraph as one of the two positions the passage rejects, and paragraph 6 attacks it directly: 'A good deal of what is said about libraries is nostalgia wearing an argument's clothes.'

Mechanism C2 — The extreme version the writer explicitly refused

28 YES · Paragraph 6.

'some of the estate is in the wrong place, open at the wrong hours'.

Mechanism R — Straight retrieval — no trap

29 NOT GIVEN · Paragraph 2.

Visits are said to have held up or risen, with no comparison between kinds of place anywhere in the passage.

Mechanism A2 — Scope widened or narrowed by dropping a qualifier

30 NO · Paragraph 4.

'Describing this as libraries reinventing themselves is a way of congratulating an institution for absorbing a failure elsewhere. The correct response is not applause.'

Mechanism R — Straight retrieval — no trap

31 YES · Paragraph 5.

'Search engines are extraordinarily good at answering the query you typed.' The criticism that follows is about the different case in which you do not know the question.

Mechanism B2 — Adjacent proposition on the same subject

32 NOT GIVEN · Paragraphs 2, 6 and 7.

The passage says the loan figure has stopped describing the place and that the sector's attachment to it is part of the problem. Whether it should be dropped, or merely joined by others, is never said.

Mechanism C3 — A conditional fact stated as universal

Questions 33–36

33 coffee · Paragraph 3.

'a warm room that does not require them to buy a **coffee**'.

Mechanism R — Straight retrieval — no trap

34 afford · Paragraph 5.

'access to things they could not individually **afford**'. The sentence names the store of information first, as the thing a library was *not*.

Mechanism E2 — Answer sits after its own distractor

35 **question** · Paragraph 5.

'help with the question behind the **question**'.

Mechanism R — Straight retrieval — no trap

36 **accountable** · Paragraph 4.

'not trained, not funded and not **accountable**'. Three things are listed and the question asks for the third; the first two are handed to you in the stem.

Mechanism A5 — Wrong agent for the action

Questions 37–40

37 **B** · Paragraph 2.

'It is the measure the sector reports, the measure funders look at, and the measure the obsolescence argument is built on.' A and C are conclusions the passage spends the rest of its length refusing.

Mechanism D1 — Statement moved from another paragraph

38 **C** · Paragraph 5.

'A library was never primarily a store of information.' A, B and D are all claims the passage makes.

Mechanism C2 — The extreme version the writer explicitly refused

39 **B** · Paragraph 4.

'It is either to fund it properly or to put the other services back.' A is refused in the sentence before it.

Mechanism B3 — Superlative moved to another dimension

40 **A** · Paragraph 8.

Stated in the final paragraph. B and C are the two positions named and rejected in the first, and D is contradicted in paragraph 5.

Mechanism C2 — The extreme version the writer explicitly refused