

Answer Key & Explanations

Academic Reading Paper 24 — Smallpox, Tree Rings and Experts

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	population	R	Straight retrieval — no trap	Paragraph 2.
2	carriers	E1	Synonym substitution, passage keyword parked on a decoy	Paragraph 2.
3	photograph	D1	Statement moved from another paragraph	Paragraph 2.
4	heat	A1	Quantity re-attached to another noun	Paragraph 2.
5	tension	R	Straight retrieval — no trap	Paragraph 4.
6	quarter	F2	Word limit decides which words are the answer	Paragraph 4.
7	TRUE	R	Straight retrieval — no trap	Paragraphs 5 and 6.
8	FALSE	C1	Overstatement — hedge removed	Paragraph 6.
9	NOT GIVEN	B2	Adjacent proposition on the same subject	Paragraphs 5 and 6.
10	FALSE	R	Straight retrieval — no trap	Paragraph 8.
11	two million	E2	Answer sits after its own distractor	Paragraph 1.
12	1988	A7	Time relation reversed	Paragraph 3.
13	searches	R	Straight retrieval — no trap	Paragraph 7.
14	C	F1	Answers out of order + repeats allowed	Section C.
15	B	F1	Answers out of order + repeats allowed	Section B.
16	F	D1	Statement moved from another paragraph	Section F.
17	D	F1	Answers out of order + repeats allowed	Section D.
18	G	R	Straight retrieval — no trap	Section G.
19	cosmic	R	Straight retrieval — no trap	Section C.
20	place	F4	Prose re-sorted into a table; column order ≠ passage order	Section C.

Q	Answer	Code	Mechanism	Where
21	old	R	Straight retrieval — no trap	Section G.
22	older	A6	Direction of change reversed	Section G.
23	doubled	E2	Answer sits after its own distractor	Section G.
24	B	D2	Intermediate actor named beside the originator	Section B.
25	B	A5	Wrong agent for the action	Section E.
26	C	C3	A conditional fact stated as universal	Section F.
27	NO	C2	The extreme version the writer explicitly refused	Paragraph 7.
28	YES	R	Straight retrieval — no trap	Paragraph 3.
29	NOT GIVEN	A2	Scope widened or narrowed by dropping a qualifier	Paragraph 2.
30	NO	R	Straight retrieval — no trap	Paragraph 5.
31	YES	B2	Adjacent proposition on the same subject	Paragraph 7.
32	B	R	Straight retrieval — no trap	Paragraph 2.
33	C	R	Straight retrieval — no trap	Paragraph 4.
34	A	R	Straight retrieval — no trap	Paragraph 5.
35	D	D1	Statement moved from another paragraph	Paragraph 6.
36	E	R	Straight retrieval — no trap	Paragraph 7.
37	B	D1	Statement moved from another paragraph	Paragraph 3.
38	C	C2	The extreme version the writer explicitly refused	Paragraph 8.
39	A	B1	Relation swap	Paragraph 4.
40	A	C2	The extreme version the writer explicitly refused	Paragraphs 6 and 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 1–6

1 **population** · Paragraph 2.

'there is no animal **population** quietly holding a reserve'. *Reservoir* is the technical word a reader supplies; the passage does not use it here.

Mechanism R — Straight retrieval — no trap

2 **carriers** · Paragraph 2.

'there are no healthy **carriers** and no long silent period of infectiousness'.

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

3 **photograph** · Paragraph 2.

'a person with no medical training can recognise it from a **photograph**'. Recognition cards appear five paragraphs later and belong to the search, not to this property.

Mechanism D1 — Statement moved from another paragraph

4 **heat** · Paragraph 2.

'a freeze-dried preparation that survives **heat**'. The hundred kilometres in the same sentence measures the gap the vaccine has to cross, not what it withstands.

Mechanism A1 — Quantity re-attached to another noun

5 **tension** · Paragraph 4.

'holds one dose of vaccine by surface **tension**'.

Mechanism R — Straight retrieval — no trap

6 **quarter** · Paragraph 4.

'It used about a **quarter** of the vaccine of the methods it replaced.'

Mechanism F2 — Word limit decides which words are the answer

Questions 7–10

7 **TRUE** · Paragraphs 5 and 6.

Foegen had 'not enough vaccine', and 'it forced a decision that nobody with a full store would have taken'.

Mechanism R — Straight retrieval — no trap

8 **FALSE** · Paragraph 6.

'The outbreak stopped, at a level of coverage far below anything the models called sufficient.'

Mechanism C1 — Overstatement — hedge removed

9 NOT GIVEN · Paragraphs 5 and 6.

He is introduced as a medical officer in eastern Nigeria, and what he did there is described in detail. Whether he had any previous experience of the disease is never mentioned — a fact sitting immediately beside several you are given.

Mechanism B2 — Adjacent proposition on the same subject

10 FALSE · Paragraph 8.

'He recovered, and spent much of his later life working on the polio campaign.' The one later death was somebody else, in Birmingham, from a laboratory strain.

Mechanism R — Straight retrieval — no trap

Questions 11–13

11 two million · Paragraph 1.

'about **two million** deaths'. Ten to fifteen million comes first in that sentence and counts cases, not deaths.

Mechanism E2 — Answer sits after its own distractor

12 1988 · Paragraph 3.

'a programme begun in **1988** is still running nearly forty years later'. The smallpox dates — 1965, 1966, 1967, 1977, 1980 — are all in the passage and none of them is this one.

Mechanism A7 — Time relation reversed

13 searches · Paragraph 7.

'a hundred and twenty thousand people into house-to-house **searches**'. The passage spells the figure out in words, so the number itself cannot be given inside the word limit — which is why it is handed to you in the stem instead.

Mechanism R — Straight retrieval — no trap

Questions 14–18

14 C · Section C.

'A few per cent does not sound serious until it is converted, at which point it becomes several hundred years in the wrong place.' Matching information does not run in text order.

Mechanism F1 — Answers out of order + repeats allowed

15 B · Section B.

'a great many results were published before anybody had established how far the method could be trusted'.

Mechanism F1 — Answers out of order + repeats allowed

16 F · Section F.

'a radiocarbon result is not a date at all but a range of calendar years with probabilities attached'. Section G describes two distortions of the record, which is a different point.

Mechanism D1 — Statement moved from another paragraph

17 D · Section D.

'a correction derived from the thing being corrected would establish nothing'.

Mechanism F1 — Answers out of order + repeats allowed

18 G · Section G.

Dating post-1950s material to within a year or two for forensic work.

Mechanism R — Straight retrieval — no trap

Questions 19–23

19 cosmic · Section C.

'Cosmic ray intensity varies with the sun's activity and with the Earth's magnetic field.'

Mechanism R — Straight retrieval — no trap

20 place · Section C.

'it becomes several hundred years in the wrong **place**'. The table takes its rows in a different order from the passage, so this has to be found rather than followed.

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

21 old · Section G.

'carbon that is far too **old** to contain any carbon-14'.

Mechanism R — Straight retrieval — no trap

22 **older** · Section G.

'making twentieth-century samples appear **older** than they are'. The dilution removes carbon-14, and less carbon-14 reads as more elapsed time — getting the direction backwards is the commonest way to lose this mark.

Mechanism A6 — Direction of change reversed

23 **doubled** · Section G.

'roughly **doubled** the amount of carbon-14 by the early 1960s'. The level has been falling since, which is the second half of the sentence and not the answer.

Mechanism E2 — Answer sits after its own distractor

Questions 24–26

24 **B** · Section B.

'he tested the method on material whose age was already known. Wood from Egyptian tombs of established dynastic date.' A is the calibration that came later and was somebody else's work, which is what makes it tempting.

Mechanism D2 — Intermediate actor named beside the originator

25 **B** · Section E.

'calibrated dates made the megalithic tombs of western Europe older than the eastern monuments they had been assumed to imitate'. A states the model that lost its chronology.

Mechanism A5 — Wrong agent for the action

26 **C** · Section F.

'no improvement in laboratory precision will help, because the ambiguity is in the atmosphere rather than in the instrument'. B is true of samples far older than the method's range, which is a different limitation stated in Section A.

Mechanism C3 — A conditional fact stated as universal

Questions 27–31

27 NO · Paragraph 7.

'None of this licenses the dismissal that the second position wants.' The same analysis says to accept the anaesthetist's judgement without argument.

Mechanism C2 — The extreme version the writer explicitly refused

28 YES · Paragraph 3.

'Firefighters and nurses report a sense that something is wrong minutes before they can say what, and they are frequently right. These are not anecdotes; they are measured.'

Mechanism R — Straight retrieval — no trap

29 NOT GIVEN · Paragraph 2.

Tetlock's subjects are described as people paid to analyse politics. No comparison of pay between the two groups is made anywhere.

Mechanism A2 — Scope widened or narrowed by dropping a qualifier

30 NO · Paragraph 5.

'The failure is not of intelligence or of effort, and it is not corrected by trying harder.'

Mechanism R — Straight retrieval — no trap

31 YES · Paragraph 7.

'it is the part that non-experts consistently underrate because it is invisible from outside'.

Mechanism B2 — Adjacent proposition on the same subject

Questions 32–36

32 B · Paragraph 2.

'the predictions of trained clinicians with those of a simple statistical rule using the same information'. Ending F supplies a reason the passage explicitly denies.

Mechanism R — Straight retrieval — no trap

33 C · Paragraph 4.

The two conditions Kahneman and Klein agreed on. Ending A states the case in which it does not develop.

Mechanism R — Straight retrieval — no trap

34 A · Paragraph 5.

'the situations are not repetitions of each other, the feedback arrives years later if at all'.

Mechanism R — Straight retrieval — no trap

35 D · Paragraph 6.

'only one of them is hired and the other outcome is never observed'.

Mechanism D1 — Statement moved from another paragraph

36 E · Paragraph 7.

'Knowing what has already been tried, what the terms mean, which sources are reliable and which question is the useful one.'

Mechanism R — Straight retrieval — no trap

Questions 37–40

37 B · Paragraph 3.

'Weather forecasters, over a few days, are extremely well calibrated', among cases that 'are measured'. D is what the paragraph after does, using different examples.

Mechanism D1 — Statement moved from another paragraph

38 C · Paragraph 8.

'a claim about a category that does not behave as a category'. A, B and D are all positions the passage holds.

Mechanism C2 — The extreme version the writer explicitly refused

39 A · Paragraph 4.

'two researchers who had spent years disagreeing about it', one documenting the failures and the other the successes. C reverses the relation: they reconciled their findings rather than overturning them.

Mechanism B1 — Relation swap

40 A · Paragraphs 6 and 8.

Stated in paragraph 6, and the passage adds that the test 'does not require knowing anything about the subject'. B and D are credentials, which paragraph 8 sets against feedback.

Mechanism C2 — The extreme version the writer explicitly refused