

Answer Key & Explanations

Academic Reading Paper 27 — Metres, Neurons and Slack

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	Paris	R	Straight retrieval — no trap	Paragraph 1.
2	platinum	F4	Prose re-sorted into a table; column order ≠ passage order	Paragraph 4.
3	X-shaped / X shaped	R	Straight retrieval — no trap	Paragraph 5.
4	krypton	A1	Quantity re-attached to another noun	Paragraph 7.
5	second	E2	Answer sits after its own distractor	Paragraph 7.
6	TRUE	R	Straight retrieval — no trap	Paragraph 2.
7	FALSE	C1	Overstatement — hedge removed	Paragraph 3.
8	NOT GIVEN	B4	Cause supplied by the reader	Paragraph 4.
9	FALSE	R	Straight retrieval — no trap	Paragraph 6.
10	baseline	R	Straight retrieval — no trap	Paragraph 2.
11	forty / 40	E1	Synonym substitution, passage keyword parked on a decoy	Paragraph 6.
12	2019	A7	Time relation reversed	Paragraph 8.
13	magnetic	F2	Word limit decides which words are the answer	Paragraph 8.
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	vii	R	Straight retrieval — no trap	Section D.
18	viii	R	Straight retrieval — no trap	Section E.
19	ix	R	Straight retrieval — no trap	Section F.
20	x	R	Straight retrieval — no trap	Section G.

Q	Answer	Code	Mechanism	Where
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21	A	D2	Intermediate actor named beside the originator	Section B.
22	C	R	Straight retrieval — no trap	Section F.
23	B	R	Straight retrieval — no trap	Section D.
24	A	A5	Wrong agent for the action	Sections C and E.
25	B	D1	Statement moved from another paragraph	Section D.
26	C	C3	A conditional fact stated as universal	Section G.
27	NO	C2	The extreme version the writer explicitly refused	Paragraphs 6 and 7.
28	YES	R	Straight retrieval — no trap	Paragraph 6.
29	NOT GIVEN	A2	Scope widened or narrowed by dropping a qualifier	Paragraph 3.
30	NO	C2	The extreme version the writer explicitly refused	Paragraphs 1 and 2.
31	YES	R	Straight retrieval — no trap	Paragraph 7.
32	NOT GIVEN	A1	Quantity re-attached to another noun	Paragraph 5.
33	F	R	Straight retrieval — no trap	Paragraph 2.
34	B	E1	Synonym substitution, passage keyword parked on a decoy	Paragraph 4.
35	G	R	Straight retrieval — no trap	Paragraph 4.
36	C	E4	Minimal-pair options	Paragraph 7.
37	B	D1	Statement moved from another paragraph	Paragraph 3.
38	B	C2	The extreme version the writer explicitly refused	Paragraphs 1 and 2.
39	B	B1	Relation swap	Paragraph 5.
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 **Paris** · Paragraph 1.

'the line of longitude passing through **Paris**'. Dunkirk and Barcelona are the ends of the surveyed arc, not the meridian's name.

Mechanism R — Straight retrieval — no trap

2 **platinum** · Paragraph 4.

'what was made in 1799 was not a formula but a bar of **platinum**'. The alloy of platinum and iridium comes in 1875, two rows further down the table and one paragraph further on.

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

3 **X-shaped / X shaped** · Paragraph 5.

'cast with an **X-shaped** cross-section so that they would sag as little as possible under their own weight'.

Mechanism R — Straight retrieval — no trap

4 **krypton** · Paragraph 7.

'the wavelength of a particular orange line in the spectrum of **krypton**'. The colour is given in the stem; the element is the answer.

Mechanism A1 — Quantity re-attached to another noun

5 **second** · Paragraph 7.

'the metre became whatever distance light covers in that fraction of a **second**'. The long number just before it is the speed, not the unit the definition now rests on.

Mechanism E2 — Answer sits after its own distractor

Questions 6–9

6 **TRUE** · Paragraph 2.

'The work was expected to take a year. It took seven.'

Mechanism R — Straight retrieval — no trap

7 **FALSE** · Paragraph 3.

'The discrepancy was later shown to have been largely real: local rock deflects a plumb line slightly from the vertical.' The passage identifies a physical cause, not an error by him.

Mechanism C1 — Overstatement — hedge removed

8 **NOT GIVEN** · Paragraph 4.

The passage says the result is about a fifth of a millimetre short of the intended definition and that this was shown later. Whether anyone knew at the time is never stated, and the reader supplies it.

Mechanism B4 — Cause supplied by the reader

9 **FALSE** · Paragraph 6.

'Nobody could say which of them had changed, and the question was not merely difficult; it was meaningless.'

Mechanism R — Straight retrieval — no trap

Questions 10–13

10 **baseline** · Paragraph 2.

'measuring a single **baseline** on flat ground to give the whole chain its scale'.

Mechanism R — Straight retrieval — no trap

11 **forty / 40** · Paragraph 6.

'which happened roughly every **forty** years'. Fifty is the drift in micrograms, in the very next sentence, and a hundred and thirty is how long the cylinder served.

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

12 **2019** · Paragraph 8.

'Mass held out until **2019**.' 1960 and 1983 are the two dates on which length was redefined, and both come earlier in the passage.

Mechanism A7 — Time relation reversed

13 **magnetic** · Paragraph 8.

'opposes the weight of a mass with a **magnetic** force whose strength is determined by electrical measurements'. Two adjectives sit in that sentence and the gap takes the first.

Mechanism F2 — Word limit decides which words are the answer

Questions 14–20

14 i · Section A.

'This was not stubbornness. It was what the tissue looked like.' Heading ii is the verdict the section is written to head off.

Mechanism E4 — Minimal-pair options

15 iii · Section B.

The stain takes 'a small and apparently random fraction of the cells' — 'staining them all was the same as staining none'. Heading iv describes the useless method the section contrasts with.

Mechanism E4 — Minimal-pair options

16 v · Section C.

Golgi read his own method as confirming the network, by an argument from the absence of a feature at the limit of resolution. Heading vi reverses that outcome.

Mechanism E4 — Minimal-pair options

17 vii · Section D.

Cajal 'drew the opposite conclusion from the same pictures'.

Mechanism R — Straight retrieval — no trap

18 viii · Section E.

The 1906 prize, and the two lectures contradicting each other before one audience.

Mechanism R — Straight retrieval — no trap

19 ix · Section F.

Sherrington named the synapse 'some fifty years before anybody saw one'.

Mechanism R — Straight retrieval — no trap

20 x · Section G.

The electron microscope, and the gap of roughly twenty billionths of a metre.

Mechanism R — Straight retrieval — no trap

Questions 21–24

21 A · Section B.

The 1873 silver method. Cajal used it to better effect and is the more celebrated of the two, which is what makes B tempting; he did not find it.

Mechanism D2 — Intermediate actor named beside the originator

22 C · Section F.

Transmission slower than conduction, one-directional, fatiguable — all functional evidence.

Mechanism R — Straight retrieval — no trap

23 B · Section D.

'the growing tip of a fibre can be seen advancing on its own ... A net cannot grow a free end.'

Mechanism R — Straight retrieval — no trap

24 A · Sections C and E.

'Golgi went on making it for three decades after better arguments had appeared', and restated the network at Stockholm in 1906.

Mechanism A5 — Wrong agent for the action

Questions 25–26

25 B · Section D.

'the tissue he worked from has since been re-examined and it does not support the charge'. D inverts the passage, which says his drawings remain in use.

Mechanism D1 — Statement moved from another paragraph

26 C · Section G.

'the argument had run for eighty years because the thing everybody was disputing was some hundreds of times smaller than anything either side could resolve'. A is contradicted by Section D, in which Cajal works from the same pictures.

Mechanism C3 — A conditional fact stated as universal

Questions 27–32

27 NO · Paragraphs 6 and 7.

'A reserve that nobody can attach to a named event is padding and should go', and many appeals are 'special pleading by people who would prefer a quieter job'.

Mechanism C2 — The extreme version the writer explicitly refused

28 YES · Paragraph 6.

'periodically removing it really does make them better'.

Mechanism R — Straight retrieval — no trap

29 NOT GIVEN · Paragraph 3.

Ninety-five per cent is used to illustrate what happens beyond the eighty-five per cent point. No claim is made about how any real hospital system currently operates.

Mechanism A2 — Scope widened or narrowed by dropping a qualifier

30 NO · Paragraphs 1 and 2.

'The objection is not the romantic one', and 'What is missing is not sentiment. It is a second set of numbers.'

Mechanism C2 — The extreme version the writer explicitly refused

31 YES · Paragraph 7.

'cutting it is not an efficiency saving; it is a decision to carry a risk, which is a different thing and should be recorded as one'.

Mechanism R — Straight retrieval — no trap

32 NOT GIVEN · Paragraph 5.

The six months in the passage measures how long the losses ran, not how long recovery took: 'the savings of two decades and the losses of six months were quantities of the same order'. Recovery is never mentioned, and the figure belongs to a different noun.

Mechanism A1 — Quantity re-attached to another noun

Questions 33–36

33 F · Paragraph 2.

'a relation between a system and a purpose under assumed **conditions**, and the assumptions are almost never written down'.

Mechanism R — Straight retrieval — no trap

34 B · Paragraph 4.

'a manager who drives **utilisation** towards a hundred per cent is not approaching the ideal'.

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

35 G · Paragraph 4.

'They are approaching a **cliff**, and the numbers on the way there will look excellent.'

Mechanism R — Straight retrieval — no trap

36 C · Paragraph 7.

'A reserve held against a specific and estimable event is **insurance**.' *Padding* is the word the same paragraph uses for the other kind, one sentence earlier.

Mechanism E4 — Minimal-pair options

Questions 37–40

37 B · Paragraph 3.

'It rises gently to about eighty-five per cent of capacity and then goes almost vertical.' A states the intuition the paragraph exists to correct.

Mechanism D1 — Statement moved from another paragraph

38 B · Paragraphs 1 and 2.

The opening paragraph treats those adjectives as the losing side of the argument, and paragraph 2 says the objection 'is not the romantic one'. A, C and D are all positions the passage holds.

Mechanism C2 — The extreme version the writer explicitly refused

39 B · Paragraph 5.

'The gain was real and it was a payment received in advance for a risk that had not yet been called in.' A denies the gain, which the sentence explicitly grants.

Mechanism B1 — Relation swap

40 A · Paragraph 8.

'Changing the belief changes nothing. Changing the report changes everything.' C is named there as the thing that does not work, and B goes far beyond a passage that concedes the efficiency case at length.

Mechanism C2 — The extreme version the writer explicitly refused