

Answer Key & Explanations

Academic Reading Paper 12 — Concrete, Resistance and Marks

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	a hundred / 100	D1	Statement moved from another paragraph	Paragraph 1.
2	rusts	R	Straight retrieval — no trap	Paragraph 1.
3	ash	D1	Statement moved from another paragraph	Paragraph 3.
4	carbonate	F4	Prose re-sorted into a table; column order $\neq$ passage order	Paragraph 5.
5	two weeks / 2 weeks	R	Straight retrieval — no trap	Paragraph 5.
6	tension	D1	Statement moved from another paragraph	Paragraph 6.
7	TRUE	R	Straight retrieval — no trap	Paragraph 1.
8	FALSE	A7	Time relation reversed	Paragraph 3.
9	FALSE	C1	Overstatement — hedge removed	Paragraph 4.
10	NOT GIVEN	B2	Adjacent proposition on the same subject	Paragraph 5.
11	TRUE	R	Straight retrieval — no trap	Paragraph 5.
12	FALSE	A3	Category swap inside a pair the passage keeps apart	Paragraph 7.
13	TRUE	R	Straight retrieval — no trap	Paragraph 8.
14	F	F1	Answers out of order + repeats allowed	Section F.
15	D	D2	Intermediate actor named beside the originator	Section D.
16	C	F1	Answers out of order + repeats allowed	Section C.
17	B	F1	Answers out of order + repeats allowed	Section B.
18	H	D2	Intermediate actor named beside the originator	Section H.
19	A	R	Straight retrieval — no trap	Section D.
20	B	R	Straight retrieval — no trap	Section E.

Q	Answer	Code	Mechanism	Where
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21	C	D2	Intermediate actor named beside the originator	Section B.
22	A	R	Straight retrieval — no trap	Section D.
23	B	C2	The extreme version the writer explicitly refused	Section A.
24	B	A1	Quantity re-attached to another noun	Section B.
25	C	R	Straight retrieval — no trap	Section E.
26	B	C2	The extreme version the writer explicitly refused	Section H.
27	NO	C1	Overstatement — hedge removed	Paragraph 1.
28	NO	C2	The extreme version the writer explicitly refused	Paragraph 5.
29	NOT GIVEN	B2	Adjacent proposition on the same subject	Paragraph 3.
30	YES	R	Straight retrieval — no trap	Paragraph 5.
31	NOT GIVEN	B2	Adjacent proposition on the same subject	Paragraphs 6 and 7.
32	A	E4	Minimal-pair options	Paragraph 1.
33	C	E4	Minimal-pair options	Paragraph 2.
34	E	R	Straight retrieval — no trap	Paragraph 3.
35	G	R	Straight retrieval — no trap	Paragraph 6.
36	H	E4	Minimal-pair options	Paragraph 6.
37	A	R	Straight retrieval — no trap	Paragraph 2.
38	B	C2	The extreme version the writer explicitly refused	Paragraph 4.
39	C	R	Straight retrieval — no trap	Paragraph 5.
40	D	R	Straight retrieval — no trap	Paragraph 7.

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 **a hundred / 100** · Paragraph 1.

'a service life of between fifty and **a hundred** years'. Two thousand belongs to the Roman column and appears in the next paragraph.

Mechanism D1 — Statement moved from another paragraph

2 **rusts** · Paragraph 1.

'the steel **rusts**, rust occupies more space than steel'. The answer is the verb, and the noun follows immediately after it.

Mechanism R — Straight retrieval — no trap

3 **ash** · Paragraph 3.

'mixed lime with volcanic **ash** from the region around Pozzuoli'. Volcanic rock, in the same sentence, is the aggregate rather than the ingredient this line asks for.

Mechanism D1 — Statement moved from another paragraph

4 **carbonate** · Paragraph 5.

'recrystallises as calcium **carbonate**, sealing the crack'. The table is read by column and the passage gives this in a long sentence about the mechanism.

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

5 **two weeks / 2 weeks** · Paragraph 5.

'The samples with the lime clasts closed within **two weeks**.'

Mechanism R — Straight retrieval — no trap

6 **tension** · Paragraph 6.

'it cannot carry **tension**, which rules out every beam, floor slab and tall frame'. Strength and years are both in the preceding clause and neither answers this.

Mechanism D1 — Statement moved from another paragraph

Questions 7–13

7 **TRUE** · Paragraph 1.

'the concrete is split from within by its own skeleton' — the steel put there to strengthen it is what breaks it.

Mechanism R — Straight retrieval — no trap

8 **FALSE** · Paragraph 3.

He wrote the recipe down; 'What Vitruvius could not say was why it worked.' Both halves are in the same paragraph, three sentences apart.

Mechanism A7 — Time relation reversed

9 FALSE · Paragraph 4.

Seawater is not damaging it slowly; it is 'a reagent', and the structure 'has been slowly strengthening'. The statement converts a reversal into a difference of degree.

Mechanism C1 — Overstatement — hedge removed

10 NOT GIVEN · Paragraph 5.

They had been read 'as evidence of careless mixing'. Where the lime came from is never discussed, and the paragraph invites a reader to supply an origin.

Mechanism B2 — Adjacent proposition on the same subject

11 TRUE · Paragraph 5.

'They tested it by cracking samples made both ways and running water through them.'

Mechanism R — Straight retrieval — no trap

12 FALSE · Paragraph 7.

'most of it from the chemistry of making lime rather than from the fuel'. The fuel is named as the thing it is *not*.

Mechanism A3 — Category swap inside a pair the passage keeps apart

13 TRUE · Paragraph 8.

They were 'visible in every sample anybody had ever looked at, and were catalogued for a century as a defect'. Noticed and catalogued, but read as a fault rather than as a mechanism.

Mechanism R — Straight retrieval — no trap

Questions 14–18

14 F · Section F.

Genes travelling sideways on loops of DNA. Matching information does not run in text order.

Mechanism F1 — Answers out of order + repeats allowed

15 D · Section D.

Fleming's 1945 Nobel lecture. Section E is earlier still, but that is a laboratory finding rather than a warning.

Mechanism D2 — Intermediate actor named beside the originator

16 C · Section C.

Antibiotics are compounds soil organisms make to compete, so immunity to them is old.

Mechanism F1 — Answers out of order + repeats allowed

17 B · Section B.

The New Mexico cave, isolated for four million years.

Mechanism F1 — Answers out of order + repeats allowed

18 H · Section H.

Firms going bankrupt after approval, because the volume that would repay development is the volume nobody wants sold. Section G describes the drought; Section H explains the economics of it.

Mechanism D2 — Intermediate actor named beside the originator

Questions 19–22

19 A · Section D.

Fleming's 1945 warning.

Mechanism R — Straight retrieval — no trap

20 B · Section E.

Abraham and Chain, 1940.

Mechanism R — Straight retrieval — no trap

21 C · Section B.

The permafrost sediments, about thirty thousand years old. The cave team in the same section worked on much older isolation but on living cultures rather than ancient DNA.

Mechanism D2 — Intermediate actor named beside the originator

22 A · Section D.

'a death for which somebody was morally responsible'.

Mechanism R — Straight retrieval — no trap

Questions 23–26

23 B · Section A.

'Bacteria did not adapt to antibiotics. They already had the genes.' A, C and D are all things the passage does not say, and the paragraph explicitly accepts every other clause of the usual account.

Mechanism C2 — The extreme version the writer explicitly refused

24 B · Section B.

Thirty thousand belongs to the permafrost sediments in the sentence before, and forty years is the gap in drug discovery two sections later. Every wrong option is a real figure from the passage.

Mechanism A1 — Quantity re-attached to another noun

25 C · Section E.

'since there was as yet nothing to protect'. D reverses the paragraph, which places the paper before any patient received the drug.

Mechanism R — Straight retrieval — no trap

26 B · Section H.

'which is an odd arrangement and a rational one'. D reverses cause and remedy.

Mechanism C2 — The extreme version the writer explicitly refused

Questions 27–31

27 NO · Paragraph 1.

'Marks are younger than most people assume' — about two hundred and thirty years, against a university tradition many centuries older.

Mechanism C1 — Overstatement — hedge removed

28 NO · Paragraph 5.

'It would be easy to run from here to the conclusion that grading should be abolished, and it is worth stopping.' The concession that follows is the argument's turning point.

Mechanism C2 — The extreme version the writer explicitly refused

29 NOT GIVEN · Paragraph 3.

The study is described and dated. Whether anybody has replicated it is never mentioned.

Mechanism B2 — Adjacent proposition on the same subject

30 YES · Paragraph 5.

'Places at universities are scarce, jobs are scarce, and something has to allocate them.'

Mechanism R — Straight retrieval — no trap

31 NOT GIVEN · Paragraphs 6 and 7.

He argues for separating feedback from certification and for grading less often. What form the certifying assessment should take is never addressed.

Mechanism B2 — Adjacent proposition on the same subject

Questions 32–36

32 A · Paragraph 1.

'it arrived as an administrative **convenience** rather than as an educational theory'. *Theory* is in the same sentence, as the thing it was not.

Mechanism E4 — Minimal-pair options

33 C · Paragraph 2.

'The grade is a **compression** format, and like every compression format it is defined by what it throws away.' *Expansion* is its twin in the box.

Mechanism E4 — Minimal-pair options

34 E · Paragraph 3.

The three conditions were comments alone, a grade alone, and both; the finding concerns the pair.

Mechanism R — Straight retrieval — no trap

35 G · Paragraph 6.

'A grade is a **certification**, and certification is needed at the point where an allocation is made.'

Mechanism R — Straight retrieval — no trap

36 H · Paragraph 6.

'A comment is **feedback**, and feedback is needed continuously while the work is being learned.'

The gap takes the general term rather than *comments*, which was used two gaps earlier.

Mechanism E4 — Minimal-pair options

Questions 37–40

37 A · Paragraph 2.

'cannot be averaged, cannot be ranked, and cannot be read by an admissions office'.

Mechanism R — Straight retrieval — no trap

38 B · Paragraph 4.

'A grade is about the student and invites a question about how they compare.' Ending E is the overstatement the writer refuses in paragraph 5.

Mechanism C2 — The extreme version the writer explicitly refused

39 C · Paragraph 5.

'it becomes one in which merit is assessed by reputation, by the name of a school, by a letter from somebody the admissions tutor happens to know'.

Mechanism R — Straight retrieval — no trap

40 D · Paragraph 7.

'both produce measurably more engagement with the comments'.

Mechanism R — Straight retrieval — no trap