

Answer Key & Explanations

Academic Reading Paper 13 — Paper, Swarms and Repairs

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	rag / rag	R	Straight retrieval — no trap	Paragraph 2.
2	grindstone / stone	D1	Statement moved from another paragraph	Paragraph 3.
3	lignin	R	Straight retrieval — no trap	Paragraph 3.
4	cellulose	R	Straight retrieval — no trap	Paragraph 4.
5	recovered	F2	Word limit decides which words are the answer	Paragraph 4.
6	alum	D1	Statement moved from another paragraph	Paragraph 5.
7	sulphuric acid / sulfuric acid	R	Straight retrieval — no trap	Paragraph 5.
8	alkaline	R	Straight retrieval — no trap	Paragraph 7.
9	life expectancy	R	Straight retrieval — no trap	Paragraph 7.
10	FALSE	A7	Time relation reversed	Paragraphs 3 and 4.
11	TRUE	R	Straight retrieval — no trap	Paragraph 4.
12	NOT GIVEN	B2	Adjacent proposition on the same subject	Paragraph 7.
13	FALSE	C2	The extreme version the writer explicitly refused	Paragraph 8.
14	i	E4	Minimal-pair options	Section A.
15	iii	E4	Minimal-pair options	Section B.
16	v	R	Straight retrieval — no trap	Section C.
17	vii	E4	Minimal-pair options	Section E.
18	ix	R	Straight retrieval — no trap	Section G.
19	xi	R	Straight retrieval — no trap	Section H.
20	A	R	Straight retrieval — no trap	Section B.

Q	Answer	Code	Mechanism	Where
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21	B	R	Straight retrieval — no trap	Section C.
22	B	D2	Intermediate actor named beside the originator	Section F.
23	B	R	Straight retrieval — no trap	Section G.
24	circuits	R	Straight retrieval — no trap	Section D.
25	talked up	R	Straight retrieval — no trap	Section D.
26	vibration	E2	Answer sits after its own distractor	Section G.
27	NO	C1	Overstatement — hedge removed	Paragraph 1.
28	NO	C2	The extreme version the writer explicitly refused	Paragraph 6.
29	NOT GIVEN	B2	Adjacent proposition on the same subject	Paragraphs 2 and 3.
30	YES	R	Straight retrieval — no trap	Paragraph 5.
31	NOT GIVEN	B2	Adjacent proposition on the same subject	Paragraphs 4 and 7.
32	YES	R	Straight retrieval — no trap	Paragraph 8.
33	A	R	Straight retrieval — no trap	Paragraph 3.
34	B	R	Straight retrieval — no trap	Paragraph 4.
35	C	C2	The extreme version the writer explicitly refused	Paragraph 5.
36	D	R	Straight retrieval — no trap	Paragraph 7.
37	A	R	Straight retrieval — no trap	Paragraph 1.
38	B	D1	Statement moved from another paragraph	Paragraph 3.
39	C	C1	Overstatement — hedge removed	Paragraph 6.
40	B	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** **rags / rag** · Paragraph 2.
'paper was made from **rags**'.
Mechanism R — Straight retrieval — no trap
- 2** **grindstone / stone** · Paragraph 3.
'pressing logs against a wet revolving **grindstone**'. Logs and fibres are both in the same sentence and neither is what the gap asks for.
Mechanism D1 — Statement moved from another paragraph
- 3** **lignin** · Paragraph 3.
'without removing the **lignin** that binds them in the tree'.
Mechanism R — Straight retrieval — no trap
- 4** **cellulose** · Paragraph 4.
'leaves the **cellulose** fibres long and intact'.
Mechanism R — Straight retrieval — no trap
- 5** **recovered** · Paragraph 4.
'the cooking chemicals can be **recovered** from the spent liquor and used again'. The two-word limit rules out copying the clause.
Mechanism F2 — Word limit decides which words are the answer

Questions 6–9

- 6** **alum** · Paragraph 5.
'the standard sizing was rosin fixed with **alum**'. Rosin is named in the same phrase and is the other half of the pair.
Mechanism D1 — Statement moved from another paragraph
- 7** **sulphuric acid / sulfuric acid** · Paragraph 5.
'produces **sulphuric acid**, in small quantities, inside the sheet'.
Mechanism R — Straight retrieval — no trap
- 8** **alkaline** · Paragraph 7.
'exposing whole collections to an **alkaline** agent'.
Mechanism R — Straight retrieval — no trap
- 9** **life expectancy** · Paragraph 7.
'specified an alkaline reserve and a minimum **life expectancy**'.
Mechanism R — Straight retrieval — no trap

Questions 10–13

10 FALSE · Paragraphs 3 and 4.

Keller patented in 1844; 1867 is Tilghman's sulphite process. Both dates and both names are in the passage, one paragraph apart.

Mechanism A7 — Time relation reversed

11 TRUE · Paragraph 4.

'the cooking chemicals can be recovered from the spent liquor and used again', given as the decisive advantage.

Mechanism R — Straight retrieval — no trap

12 NOT GIVEN · Paragraph 7.

The treatments are described and their limitation stated — they stop decay rather than reverse it. Cost is never mentioned, and reprinting is not discussed at all.

Mechanism B2 — Adjacent proposition on the same subject

13 FALSE · Paragraph 8.

'kraft paper made without acid sizing is perfectly durable ... The material was not the mistake. The additive was.' The final paragraph exists to block exactly this conclusion.

Mechanism C2 — The extreme version the writer explicitly refused

Questions 14–19

14 i · Section A.

'Nobody is in charge of making it. The queen takes no part.' *ii* is contradicted by that sentence rather than merely fitting less well.

Mechanism E4 — Minimal-pair options

15 iii · Section B.

The waggle dance, already known for food, being used for nest sites. *iv* would mean the dance had been misunderstood, which is not what the section says.

Mechanism E4 — Minimal-pair options

16 v · Section C.

Volume, entrance, dryness, and the match between the scouts' preferences and what colonies actually need.

Mechanism R — Straight retrieval — no trap

17 vii · Section E.

'her support for it dies out after a handful of visits unless she is replaced by new recruits'. *viii* reverses the direction of the mechanism.

Mechanism E4 — Minimal-pair options

18 ix · Section G.

The stop signal: 'Bees inhibit competing options directly.'

Mechanism R — Straight retrieval — no trap

19 xi · Section H.

'swarms chose the best available site in the large majority of trials'.

Mechanism R — Straight retrieval — no trap

Questions 20–23

20 A · Section B.

Lindauer in the 1950s, following dusty dancers to holes in walls.

Mechanism R — Straight retrieval — no trap

21 B · Section C.

Seeley's island off Maine, where every available site was one he had built.

Mechanism R — Straight retrieval — no trap

22 B · Section F.

The quorum of roughly fifteen to twenty. Lindauer is the tempting answer because he is the one who discovered the behaviour being counted, but the quorum is Seeley's finding.

Mechanism D2 — Intermediate actor named beside the originator

23 B · Section G.

Seeley's group, with engineers and neuroscientists, on cross-inhibition.

Mechanism R — Straight retrieval — no trap

Questions 24–26

24 **circuits** · Section D.

'A scout advertising an excellent cavity may dance a hundred **circuits**; one advertising a mediocre cavity may dance ten.' The ten in the second half of the sentence is the figure the eye lands on last.

Mechanism R — Straight retrieval — no trap

25 **talked up** · Section D.

'a poor site cannot be **talked up** by an enthusiast'.

Mechanism R — Straight retrieval — no trap

26 **vibration** · Section G.

'butt her with her head and produce a brief **vibration**'. The answer is at the end of a long clause, after two other actions.

Mechanism E2 — Answer sits after its own distractor

Questions 27–32

27 NO · Paragraph 1.

'For several centuries in English it meant something close to dangerous meddling.'

Mechanism C1 — Overstatement — hedge removed

28 NO · Paragraph 6.

'Nor is the argument against innovation, which would be silly', followed by four things that were not maintenance.

Mechanism C2 — The extreme version the writer explicitly refused

29 NOT GIVEN · Paragraphs 2 and 3.

Their argument about the size of the maintenance workforce is reported. Whether they proposed a measurement method is never said, and the next paragraph's discussion of proxies makes a reader assume they did.

Mechanism B2 — Adjacent proposition on the same subject

30 YES · Paragraph 5.

'Not everything old should be maintained. A maintenance case can be a way of protecting an arrangement that ought to be replaced.'

Mechanism R — Straight retrieval — no trap

31 NOT GIVEN · Paragraphs 4 and 7.

He proposes funding replacement and addition on the same terms so that the accounting does not favour one. Abolishing the category is never raised.

Mechanism B2 — Adjacent proposition on the same subject

32 YES · Paragraph 8.

'It is not conservative, since it makes no claim that the thing should never change.'

Mechanism R — Straight retrieval — no trap

Questions 33–36

33 A · Paragraph 3.

'patents filed, products launched, firms founded, papers cited ... Maintenance has none.'

Mechanism R — Straight retrieval — no trap

34 B · Paragraph 4.

'an immediate benefit to whoever defers it and a delayed cost to whoever is in the post afterwards'.

Mechanism R — Straight retrieval — no trap

35 C · Paragraph 5.

'A maintenance case can be a way of protecting an arrangement that ought to be replaced.' Ending E is the unattractive version the writer names and refuses in the same paragraph.

Mechanism C2 — The extreme version the writer explicitly refused

36 D · Paragraph 7.

'so that a decision to build something new is visibly a decision about something old'.

Mechanism R — Straight retrieval — no trap

Questions 37–40

37 A · Paragraph 1.

Stated directly, and 'the term appeared mostly in accusations' rules out D.

Mechanism R — Straight retrieval — no trap

38 B · Paragraph 3.

It follows 'Maintenance has none' — none of the countable proxies. A and C are true-sounding statements the passage never makes.

Mechanism D1 — Statement moved from another paragraph

39 C · Paragraph 6.

'A society can be simultaneously very good at inventing things and very bad at owning them.' The sentence is built to be misremembered as a contradiction.

Mechanism C1 — Overstatement — hedge removed

40 B · Paragraph 8.

'Maintenance is the form that obligation takes when the inheritance is physical.' A is nowhere in the passage and C is undercut by the writer's own warning about what can be counted.

Mechanism C2 — The extreme version the writer explicitly refused