Listening Part 4

Questions 31-40

Complete the notes below.
*Write **ONE WORD ONLY** for each answer.*

The Engineer Sarah Guppy, 1770-1852

Background

- women were active in many areas of 19th-century British society, e.g. Jane Harrison was the first female **31 ……**
- by the end of the century there were 140 female dentists and 212 **32** ……, as well as many musicians and actors

Sarah Guppy

- was born in Birmingham and moved to Bristol with her husband
- designed bridges that could survive **33** ……
- built **34** …… of the Clifton Suspension Bridge
- was a significant **35** …… in the Clifton Suspension Bridge together with her husband
- designed a 'barnacle buster' that allowed **36** …… to go faster
- helped stop **37** …… near railway lines
- built an amusing machine for making different parts of **38** …… at the same time
- designed an early type of **39** …… equipment

Conclusions

- other women worked as engineers, e.g. Ada Lovelace and Hertha Marks Ayrton
- it was not until 1906 that a woman **40** …… in engineering

Questions 21–26

21/22 B and **E**, (in any order)

B, Maia says that babies need to investigate their own environment. 'They should examine the objects around them and experiment . . . discover information for themselves.'

E, Daniel says that babies learn by interacting with their parents and caregivers.

Distraction A, Maia says that babies will pay attention to the videos for long periods of time. C, Maia says babies don't need to play in a group – it can be alone. D, Daniel says that babies don't learn effectively from screens, but not that screens do them any harm.

23/24 B and **C**, (in any order)

B, Maia is amazed 'the research has produced so much specific information'. She says she hadn't expected the results to cover 'so many different aspects of baby behaviour'. **C**, Daniel says it isn't some, but that 'pretty much every baby prefers the paper to the present'. Maia had thought there would be more exceptions.

Distraction A, Daniel says we should not stop wrapping up presents. D, Daniel says that both males and females behave the same way. E, there are several references to methodology, including brain scans, but no mention of criticism.

25/26 A and **D**, (in any order)

A, Maia says that 'follow-up testing showed that the classes had a long-term benefit'. Both students agree that this is impressive.

D, Maia says that all the teachers had the same training that emphasised the importance of play, and they both agree that this was important for the experiment to be valid.

Distraction B, some details about the research subjects are given but no comment is made regarding the number. C, Daniel asks if the children enjoyed themselves, but Maia has no information on that. E, at present, the response of the schools is not known.

Action plan reminder

Matching tasks

1 It depends. Sometimes you write the letters once only, sometimes more than once. Read the instructions and study the task carefully.

2 Yes, if it is the first task, you are given time at the beginning of the recording. If it is the second task, there will be a pause in the recording so you can read the questions.

3 Not necessarily. Listen for synonyms and paraphrases.

4 Yes, this helps you follow the information in the recording and find the correct answer.

Questions 27–30

27 **C** Maia mentions that parents and caregivers sometimes repeated the same movements, and concludes that babies were happiest when their behaviour was imitated.

Distraction B, there are references to movement. D, the babies were given toys to play with, but there is no reference to them being excited or surprised by this.

28 **F** Daniel says that the babies wanted to give assistance. If they thought someone had a problem, they wanted to help.

Distraction D, there is reference to a surprise such as a pen being dropped, but no reference to the babies being excited by this. C, Maia asks if the babies copied the researchers' behaviour, but Daniel says no.

29 **A** Maia says the babies recognised the relationship between reason and result, because they knew the light would come on.

Distraction B, 'pushing' the buttons may suggest physical exercise but that is not the nature of this experiment. E, Daniel asks if he is a linguist, but is confusing him with someone else.

30 **E** The babies have some knowledge of how language is structured, and can recognise nouns and verbs, etc.

Distraction D, Maia expresses surprise at the research finding, but that doesn't relate to the babies being surprised.

LISTENING PART 4

Training

Review

1 One

2 A topic that is suitable for an academic lecture or presentation

3 10

4 One or two

Useful strategy: following the speaker

1

1 A	**6** B, C	**11** B
2 C	**7** C	**12** A
3 B	**8** A, C	**13** A, B
4 C	**9** A, B	**14** C
5 A	**10** A	**15** A

Useful strategy: editing your work

1
1. **geometry** (the candidate has spelt the word incorrectly)
2. **correct**
3. **tunnel** (the candidate has written two words by repeating the article 'a', which is already given on the question paper)
4. **safe** (the candidate has incorrectly changed the part of speech)
5. **stations** (the candidate has written the singular)
6. **correct**
7. **expensive** (the candidate has written too many words)
8. **towers** (the candidate has written the singular)
9. **correct**
10. **hospital** (the candidate has written the plural)

Exam Practice

Action plan reminder

Note completion

1 The instructions will tell you how many. If the instructions say NO MORE THAN TWO, you can write one word or two words.

2 The headings and subheadings in the notes will give you important information. The introduction to the recording will also give you some information.

3 Use the subheadings to help you and the locator words in each note (e.g. names, dates, nouns etc.).

4 Study the words around each gap and listen for synonyms and paraphrases.

Questions 31–40

31 **academic** 'female' in the question = 'woman' in the recording

32 **doctors** the information in the question is in a different order in the recording to provide distraction

33 **floods** 'survive' in the question = 'withstand' in the recording

34 **models** 'built' in the question = 'constructed' in the recording

35 **investor** 'significant' in the question = 'important' in the recording

36 **ships** 'faster' in the question = 'increased the speed at which' in the recording

37 **erosion** 'erosion' is described as a 'problem' in the recording to highlight the issue. 'cuttings' provides distraction here, but cannot be the answer as an engineer would not wish to 'stop' them.

38 **breakfast** It's necessary to follow the development of the idea before the speaker gives the answer.

39 **gym** The locator word 'equipment' comes after the answer in the question, but before it in the recording. Then in the recording 'equipment' is paraphrased as 'machine'.

40 **graduated** The date provides a clear locator word here.

'graduated in engineering' in the question = 'graduated as an engineer' in the recording

'studied' provides distraction, but doesn't work with the preposition 'in'

READING PASSAGE 1

Training

Review

1 No, not necessarily.

2 Yes.

3 Even though you think you might know the answer to a question without reading the text, you must always check the information provided by the writer. You will only get a mark if you answer according to the information in the text.

4 You will always have to answer at least two, possibly three tasks. These include True/False/Not given, completing Notes, a Table, a Flow-Chart or a Diagram.

Useful strategies: *True / False / Not Given*

1 **NOT GIVEN:** We are only told that babies and adults both laugh as a way to communicate. We aren't told anything about the things they are laughing at.

2 **TRUE:** The writer explains that it would make more sense to buy 'this processed kind' [= salt] because of the iodine it contains; something that is 'vital' [= extremely important] for our 'physical wellbeing' [= health].

3 **FALSE:** The writer clearly explains that, in 400 BC, the Romans and Greeks thought that blue dye came from a mineral, not a plant. The statement contradicts the information in the passage.

Maia: Well, I read about Dr Pritchard's study. In her experiment, babies were given toys to play with. And their caregivers sometimes repeated the same movements as the baby, and sometimes did something different. And Dr Pritchard monitored the baby's electrical brain
Q27 activity. The results showed that babies were happiest when parents or caregivers imitated their behaviour.

Daniel: Maybe that could be used as a teaching tool?

Maia: Yeah, absolutely.

Daniel: Then I read about a study of 3-year-olds. This was interesting. The researchers experimented by doing things like dropping a pen or knocking something off a desk.

Maia: And did the children do the same thing?

Q28 *Daniel:* No, what they often did though, was pick up the pen. They wanted to give someone assistance if they could, if they thought someone else had a problem. So I think that shows how babies are more likely to learn by working with caregivers and teachers, rather than in isolation.

Maia: Then have you heard of Professor Michelson?

Daniel: Is he a linguist?

Maia: You're thinking of someone else. Professor Michelson did a study where babies had to push buttons. Some buttons switched on a light and some didn't. And after a little experimentation, the babies nearly always pushed a button that switched on a light.

Daniel: You mean, they knew the light would come on?

Q29 *Maia:* Professor Michelson thinks so. He believes they recognised that a certain thing would happen, as a result of a certain action. So maybe that has implications for learning.

Q30 *Daniel:* Interesting. I also looked at a study in the United States. This showed that babies as young as 16 months have some knowledge of how language is structured. In a simple sense, they seemed to know the function of nouns and verbs. And the researchers believe this is linked to the way they learn the meaning of new words.

Maia: Oh, really? Amazing they start so young. I'd like to read about that…

LISTENING PART 4

17

Exam Practice

You will hear an engineering student giving a presentation about a female engineer called Sarah Guppy.

Now listen carefully and answer questions 31 to 40.

Student: Well, hi everyone. In my presentation today I'm going to be talking about Sarah Guppy, a female engineer in Britain in the 19th century.

So, first some background. Um, so in Britain at that time, there weren't many women engineers. But the 19th century was a time of great change in Britain and women were becoming increasingly active in many aspects of society. So one example would be Jane Harrison, who was a linguist and an expert on ancient civilisations. Jane Harrison is credited *Q31*
with being the first woman to be employed as an academic at a British university. And slowly women were being employed in more fields during this period. Let me just give you a few statistics to illustrate. Um, so, by the end of the 19th century, there were thousands of female musicians and actors and more than half in each group were women. When it came to the professions, the numbers were much lower. So dentists – there were 140 women, and there were 212 women who were employed as *Q32*
doctors at the end of the century.

OK, so moving onto Sarah Guppy herself. Sarah was born in 1770 in the city of Birmingham into a family of merchants. Aged 25 she married Samuel Guppy and moved to the city of Bristol. Then in 1811, she patented her first invention. This was a method of building bridges that *Q33*
were so strong they could withstand even severe floods, which might otherwise have destroyed the bridge. Her idea was used by the engineer Isambard Kingdom Brunel when he built the famous Clifton Suspension bridge. Sarah was not directly involved in this project as an engineer. However, she is known to have constructed models *Q34*
representing the entire structure, and these were of great assistance to Brunel when he built the Clifton Suspension bridge. What's more, Sarah was involved in the project to build the Clifton Suspension bridge in another way, too. Together with her husband, Sarah was an important investor in the *Q35*
project, and did well out of it financially.

Now listen and answer questions 36 to 40.

Student: However, Sarah's talents as an engineer and designer went beyond bridges. One of her inventions was the so-called 'barnacle buster'. This was a device that increased the speed at which ships could *Q36*
sail, by preventing tiny creatures like barnacles growing on them. Sarah also had an interest in railways. Now, the 19th century was a time when a huge number of railway lines were being built across Britain. Frequently, this involved digging 'cuttings', where the railway line was cut into a hill. And Sarah encouraged trees and vegetation to be planted in cuttings to *Q37*
reduce the problem of erosion – a technique that is still commonly used today.

I'd also like to mention that some of Sarah Guppy's machines are quite amusing when we look back at them today. One that stood out for me was a machine that made tea, kept toast warm and boiled an egg all at the same time, so you could sit down for a typical British breakfast *Q38*
without waiting for anything. It's quite strange to look at but I guess it might have been convenient! Then there was one area where Sarah was really ahead of her time because she designed an early type of equipment that's very common today. This was a sort of gym machine *Q39*
that you could keep at home. And in the last 150 years or so that's an industry that has really taken off.

OK, so in conclusion, what can we say about the career of Sarah Guppy? She certainly wasn't the only woman engineer in 19th century Britain. I mean, for example there was Ada Lovelace, who is sometimes described as the first computer programmer and Hertha Marks Ayrton, a mathematician and electrical engineer. But still, Sarah's contribution was highly unusual. Just by way of illustration, it's worth noting that it wasn't until 1906 – 54 years after Sarah's death – that a woman studied *Q40*
engineering at university and graduated as an engineer for the first time. Now one other thing…