

Academic Reading Paper 43

Scrolls, Currents and Copies

Time allowed: 1 hour

INSTRUCTIONS TO CANDIDATES

- Do not open this booklet until you are told to do so.
- Write your name and the date at the top of the answer sheet.
- Answer **all** the questions.
- Write your answers **on the answer sheet**, not in this booklet.
- You must transfer your answers within the hour. **No extra time is given for transferring answers in the Reading test.**
- Do not remove this booklet from the examination room.

INFORMATION FOR CANDIDATES

- There are 40 questions in this paper.
- Each question carries one mark.
- There are three passages, with 13, 13 and 14 questions.

These passages were written for this library. They are **not** reproduced from any published past paper. The format, timing and task types follow the published specification for the Academic Reading test so that sitting this on paper feels like the real thing.

You should spend about 20 minutes on **Questions 1–13**, which are based on Reading Passage 1 below.

What the caves gave up

The first of them came out of a cave above the Dead Sea in the winter of 1946 or the spring of 1947, found by Bedouin who were not looking for manuscripts. Seven scrolls were removed and passed to dealers in Bethlehem. Four of them ended up with a Syrian churchman who could find no buyer in the region and eventually placed a small advertisement in an American financial newspaper in 1954, offering biblical manuscripts dating from at least two hundred years before the common era as a suitable gift for an educational institution. They were bought, through an intermediary, for a quarter of a million dollars.

Between 1947 and 1956 eleven caves in the same area were searched, by Bedouin and by archaeologists working against each other as much as together. The eventual haul is usually put at around nine hundred manuscripts, but that figure gives the wrong impression of what was found. Only a handful of scrolls came out whole. The rest arrived as something like fifteen thousand fragments, many of them smaller than a coin, and a large part of the work since has consisted of deciding which piece belongs with which.

The importance was immediate and easy to state. Before 1947 the oldest substantial manuscripts of the Hebrew Bible were medieval codices written around the tenth century of the common era. The scrolls pushed the physical evidence back by roughly a thousand years, and when the two were compared the text turned out to be, for long stretches, very close indeed. That a text copied by hand for a millennium should come through with so little change is itself the finding, and it is the one most often quoted.

The differences are the more interesting result, and they are quoted less. The scrolls do not all agree with each other. Some follow the text that became standard; some agree instead with the Greek translation made in Egypt centuries earlier; some match the version preserved by the Samaritans; and some follow none of these. Before the discovery, the places where the Greek and the Hebrew diverged were often explained away as the mistakes of translators. Afterwards it was clear that more than one Hebrew text had been in circulation at the same time, and that the translators had sometimes been working faithfully from a different original.

The early treatment of the material would horrify a modern conservator. Fragments were joined with adhesive tape, pressed flat between plates of glass, and in some cases rubbed with castor oil to make the writing easier to read. The rooms they were kept in had no control of humidity. Over the following decades the adhesive darkened and soaked into the leather, the oil collected dirt, and the glass sweated. A great deal of the conservation work done since has consisted of undoing what was done in the first ten years.

Access was the longer scandal. A small editorial team was granted the exclusive right to publish, and it published slowly. Volumes appeared at a rate that would have taken centuries to finish the job, and scholars outside the group were not permitted to see the unpublished material, which was most of it. By

the late nineteen-eighties, forty years after the discovery, a large proportion had still not been made available. The situation ended abruptly in 1991, when a library in California announced that it held a complete set of photographs and would show them to anybody who asked. Within weeks the monopoly was over.

Dating rests on two independent methods that have to be made to agree. Palaeography places a hand in a period by the shape of its letters; radiocarbon measures the age of the material the ink sits on. Early radiocarbon work required destroying a piece large enough to matter, and later techniques needed far less. The results place the great majority of the manuscripts between the third century before the common era and the first century after it, which is broadly what the letter shapes suggested. One complication had to be identified first: the castor oil applied in the 1950s carried modern carbon into the samples and made them read younger until the treatment was recognised and the material cleaned.

Two questions remain genuinely open. The first is who assembled the collection: the usual account attaches it to a community living at the nearby site of Qumran, and that attachment has been argued about for decades without being settled. The second is newer and more uncomfortable. Since 2002 several dozen previously unknown fragments have appeared on the antiquities market and been bought by collectors and institutions. In 2020 an investigation commissioned by one American museum concluded that all sixteen of the pieces it had acquired were modern forgeries, written on genuinely ancient leather so that a radiocarbon test would return the expected answer.

Questions 1–4

Complete the notes below.

Choose **NO MORE THAN TWO WORDS AND/OR A NUMBER** from the passage for each answer.

How the collection came to light

The first find

- Found in 1946 or 1947 by **1**, who had no interest in manuscripts.
- Four were offered in 1954 through an advertisement in an American **2** newspaper.

The full search

- Eleven caves were searched between 1947 and **3**
- Most of the material arrived as roughly **4** fragments.

Questions 5–9

Do the following statements agree with the information given in Reading Passage 1?

Write **TRUE** if the statement agrees with the information, **FALSE** if the statement contradicts the information, or **NOT GIVEN** if there is no information on this.

5 Only a small number of the scrolls were recovered intact.

- 6 All the scrolls agree with the text that later became standard.
- 7 The sum paid in 1954 was more than the seller had hoped for.
- 8 The castor oil treatment made the radiocarbon results read older than the true age.
- 9 The publishing monopoly ended shortly after the Californian library's announcement.

Questions 10–13

Complete the table below.

Choose **NO MORE THAN TWO WORDS** from the passage for each answer.

Four problems the collection has had	
Problem	What happened
Early conservation	fragments were joined with 10 , pressed between glass and rubbed with castor oil
Access	a small 11 team was granted the sole right to publish
Dating	letter shapes are read by 12 ; radiocarbon dates the material underneath
Recent purchases	in 2020 all sixteen pieces held by one museum were judged to be modern 13

You should spend about 20 minutes on Questions 14–26, which are based on Reading Passage 2 below.

How the deep ocean was found to move

- A** The deep ocean is cold everywhere. Two kilometres below the surface at the equator the water is a few degrees above freezing, which it has no business being, since nothing at that latitude could have cooled it. The only available explanation is that the water arrived from somewhere near a pole and has not yet mixed away. That much was understood in the nineteenth century. What could not be done was to watch it happen, because deep currents are slow, the ocean is opaque, and until well into the twentieth century there was no way to follow a parcel of water for any distance. A current a hundred times slower than a river is a current that nothing at the surface will reveal.
- B** The first map was made without seeing a current at all. Between 1925 and 1927 a German research vessel crossed the South Atlantic fourteen times, stopping to lower instruments and take the temperature and the salt content at a series of depths, several hundred times over. Georg Wüst, who worked up the measurements, treated those two properties as labels. Water that formed at the surface in a particular place carries a particular combination of them, and keeps it for a long time. By following the labels he showed that the deep Atlantic is stacked in layers with different origins, one sliding over another, and he did it entirely from properties rather than from motion. The method has an obvious limit, which is that it tells you where water came from and not how quickly it is travelling now.
- C** Theory arrived next, and in an unusual order. In 1958 Henry Stommel argued from the rotation of the Earth that the deep return flow could not be spread evenly across a basin: it would have to be concentrated into narrow currents running along the western side, and he said which way they would go. Nothing of the sort had been measured. The prediction concerned a part of the ocean that nobody had instruments in, and it was made from a piece of physics rather than from data.
- D** The instrument that could test it was being built at about the same time. John Swallow designed a float that could be weighted to hang at a chosen depth, neither sinking nor rising, and made to emit a sound that a ship could track. The first results were an embarrassment. The floats moved far faster than the theory allowed and they changed direction, sometimes reversing entirely within days. Taken at face value the observations refuted the prediction, and for a few years that is how they were read.
- E** They did not. What the floats had found was that the deep ocean is full of eddies, swirls a hundred kilometres across that carry water round in circles at speeds much greater than the slow drift underneath them. Nobody had allowed for this because nobody had known it was there. Once enough floats had been released and their tracks averaged, the eddies cancelled and the mean flow that remained was, in direction and roughly in strength, the one Stommel had described. An observation that looked like a refutation had turned into a discovery and then into a confirmation.

- F** Radiocarbon supplied the missing dimension, which was time. Water at the surface exchanges carbon with the air; once it sinks, the exchange stops and the radiocarbon in it decays at a known rate, so the amount left is a clock reading the time since that water was last in contact with the atmosphere. The deep North Atlantic returns ages of a century or two. The deep North Pacific returns something close to a thousand years. That converted a stack of layers into a circuit with a direction and a speed, and it showed which end was the beginning. Water sinks in the north Atlantic and surfaces, a very long time later, on the other side of the world.
- G** Wallace Broecker then drew the picture that everybody knows: a ribbon looping through the world's oceans, sinking in the north Atlantic, running south, round Antarctica and up into the Pacific. It is one of the most reproduced diagrams in the earth sciences, and it did more than any paper to connect the circulation with the abrupt climate changes recorded in ice cores. Broecker also spent his later years attacking it. The flow is not a single belt and does not behave like one; density differences are not the only engine, since winds and tides supply much of the energy that does the mixing; and the ribbon suggests a delicate mechanism with a single switch, which is a picture the measurements do not support. A diagram that made the subject communicable had outlived its own accuracy, and its author said so.

Questions 14–19

Reading Passage 2 has seven paragraphs, A–G.

Which paragraph contains the following information?

Write the correct letter, A–G.

NB You may use any letter more than once.

List of Paragraphs

- A** Paragraph A
- B** Paragraph B
- C** Paragraph C
- D** Paragraph D
- E** Paragraph E
- F** Paragraph F
- G** Paragraph G

- 14** an explanation of why a result that appeared to contradict a prediction did not
- 15** a note on what a particular method cannot tell you
- 16** a scientist's own objections to an illustration he had made
- 17** a claim advanced about a region in which nothing had been measured
- 18** a statement of why the deep ocean cannot have become cold where it now lies

19 an account of how the time since water left the surface is worked out

Questions 20–23

Look at the following achievements and the list of scientists below.

Match each achievement with the correct scientist, A–D.

List of Scientists	
A	Georg Wüst
B	Henry Stommel
C	John Swallow
D	Wallace Broecker

20 used two measured properties as labels for where water had come from

21 described the shape of a flow before there were any instruments in that part of the ocean

22 built a device that would remain at a chosen depth and could be tracked by sound

23 argued in public against a picture he had drawn himself

Questions 24–26

Choose the correct letter, A, B, C or D.

24 What did the first float results actually show?

- A that the physics behind the prediction was wrong
- B that the deep ocean contains large eddies
- C that the floats had been weighted incorrectly
- D that deep currents run along the eastern side of basins

25 Why can radiocarbon be used to date deep water?

- A It records the temperature at which the water formed.
- B The exchange of carbon with the air stops once the water sinks.
- C It measures the salt content directly.
- D It shows the route the water has travelled.

26 What does the writer say is wrong with the conveyor-belt diagram?

- A It was produced by somebody outside the subject.
- B It implies one mechanism with a single switch.
- C It leaves the Atlantic out.
- D It was never widely reproduced.

You should spend about 20 minutes on **Questions 27–40**, which are based on Reading Passage 3 below.

What a copy is worth

In 1945 a Dutch painter named Han van Meegeren was arrested for selling a national treasure to the enemy. He had sold a Vermeer to Hermann Göring. His defence was to confess to a different crime: the painting was not a Vermeer, he had made it himself, and he had made several others that were hanging in museums and private collections. To prove it he painted another one while in custody. Before the confession, the most respected authority on Vermeer in the Netherlands had authenticated the first of them and described it as the finest work of the artist he had seen. It had been bought for a museum in Rotterdam and hung there as the centre of the collection.

That last detail is the awkward one and it is usually hurried past. While the paintings were believed to be genuine, people stood in front of them and were moved, and the person best equipped to judge was moved most of all. Nothing about the objects changed on the day of the confession. If the value of a painting is in the painting, something has gone badly wrong with the account.

The first response is to insist that the original really is better and that a trained eye will eventually see it. There is something in this, but it cannot carry the weight put on it, because the trained eye has failed too often and has failed on exactly the works where the stakes were highest. An argument that requires the experts to have been right does not survive a century in which they were repeatedly and publicly wrong.

The second response goes the other way. If nobody can tell the difference by looking, then there is no difference worth paying for, and the premium commanded by originals is snobbery, or a market protecting its own prices. This is the more fashionable position and it is also wrong, though it takes longer to say why. The mistake in it is not about markets. It is about what a viewer is receiving when they look at a painting at all.

A painting is not only an object. It is the record of an act, and part of what a viewer takes from it is information: that a particular person, at a particular time, with the materials and the habits of that time, did this. A forgery is a false record. It reports that somebody in the sixteen-fifties could see and do a certain thing, when what actually happened is that somebody in the nineteen-thirties could imitate it. The object may be beautiful and the report is untrue, and those are separate properties that the word fake runs together.

Two things fall out of this that the other accounts cannot explain. The first is why museums keep forgeries instead of destroying them, and study them, and occasionally exhibit them: as objects they are worthless and as evidence about their own period they are excellent. The second is how forgeries are usually caught in the end. They contain the taste of the time they were made in, which is invisible to the people who share it and unmistakable fifty years later. Van Meegeren's Vermeers are now hard to look at without seeing the nineteen-thirties in the faces, and the fact that this was once invisible to the best judge in the country is a warning about how little of a period anybody can see from inside it.

The concession is real and the argument is often pushed past it. There are many purposes for which the record does not matter at all. A photograph of a document conveys everything the reader needs. A cast in a teaching collection does the work of the sculpture. An instrument rebuilt to old specifications and played is more use than a fragile original in a case. And insisting on originals carries costs that are rarely counted: works held in vaults because they are too valuable to hang, prices that have put whole categories out of reach of public collections, and an authentication business whose income depends on the scarcity it certifies.

The way through is to separate two questions that the word authentic is made to answer at once. Ask what the person in front of the object is actually getting. If it is an experience, a good copy may deliver it, and sometimes deliver it better, in a room with decent light and no crowd. If it is evidence about a person or a period, then the object's history is the entire content and a copy has none of it. Most arguments about authenticity are two people answering different questions and assuming, on the strength of one shared word, that they disagree.

Questions 27–31

Choose the correct letter, A, B, C or D.

- 27** How did van Meegeren answer the charge brought against him in 1945?
- A He denied having sold anything to Göring.
 - B He confessed to a different offence.
 - C He said the painting had been stolen from him.
 - D He claimed the sale had been forced on him.
- 28** Why does the writer call the expert's praise the awkward detail?
- A It shows that the expert had been bribed.
 - B People were genuinely moved by an object that did not change when the truth emerged.
 - C It proves that the painting was a good one after all.
 - D It explains why such a high price was paid.
- 29** What is the writer's objection to the first response?
- A Trained observers have been wrong too often for it to hold.
 - B Nobody has ever attempted to test it.
 - C It is a recent idea with no history behind it.
 - D It applies to paintings but not to other objects.

- 30** On the writer's account, what does a forgery damage?
- A the beauty of the object itself
 - B the truth of the record the object carries
 - C the market for the artist's other work
 - D the possibility of restoring it later
- 31** Why does the writer say forgeries are caught in the end?
- A The materials they use decay at a different rate.
 - B They carry the taste of the period in which they were made.
 - C Forgers generally confess at some point.
 - D Museums re-examine everything after a fixed interval.

Questions 32–36

Do the following statements agree with the claims of the writer in Reading Passage 3?

Write **YES** if the statement agrees with the claims of the writer, **NO** if the statement contradicts the claims of the writer, or **NOT GIVEN** if it is impossible to say what the writer thinks about this.

- 32** The writer accepts that a copy can sometimes provide a better experience than an original.
- 33** The writer regards the premium paid for originals as nothing more than snobbery.
- 34** The writer thinks van Meegeren should not have been prosecuted.
- 35** The writer holds that the authentication trade profits from the scarcity it confirms.
- 36** The writer believes the value of art has risen faster than that of other assets.

Questions 37–40

Complete each sentence with the correct ending, A–G, below.

List of Endings

- A the object's history is the whole of the content.
- B two people are answering different questions.
- C works kept in vaults instead of being shown.
- D forgers are more skilful than their contemporaries.
- E as evidence about their own period they are excellent.
- F the market has settled on a single definition.
- G a copy always gives a poorer experience.

- 37** Museums hold on to forgeries because

- 38** Among the costs of insisting on originals the writer lists
- 39** When what a viewer wants is evidence about a person or a period,
- 40** Most arguments about authenticity occur because