



PART 1

Read the text below and answer questions 1–13.

THE HISTORY OF PAPER

A

Paper, one of humanity's most ubiquitous materials, has a history far older and more complex than is often appreciated. Long before it became an everyday commodity, it represented a technical breakthrough: a lightweight, foldable surface capable of holding ink, surviving transport, and being produced in large quantities. Its invention is traditionally credited to Cai Lun, a Chinese court official, in 105 AD during the Eastern Han Dynasty. Yet archaeological discoveries indicate that rudimentary paper—made from hemp and linen rags—was already in use in parts of China up to two centuries earlier. Cai Lun's lasting contribution was not simply "inventing" paper, but standardising the process and improving quality by widening the range of inputs, including tree bark, fishnets, and old cloth, to create a more durable and cheaper writing material.

B

Early papermaking depended on careful preparation: fibres had to be cleaned, soaked, and beaten into a pulp before being suspended in water. A screen mould was then dipped into the mixture, lifting a thin mat of fibres that could be pressed and dried into a sheet. Small changes in fibre length, water quality, and pressing techniques could produce noticeably different textures—an early sign that papermaking was as much skilled craft as it was simple manufacture. For centuries, this knowledge remained a closely guarded secret within China, closely tied to administration and scholarship. Paper supported expanding bureaucracies because it was lighter than bamboo or wooden slips and, over time, cheaper than silk. As paper use widened, it encouraged new forms of record-keeping, from tax registers to legal documents, strengthening state capacity.

C

The technology spread westward most dramatically after the Battle of Talas in 751 AD. Historical accounts describe Chinese papermakers being captured and the method taken to Samarkand, from where it diffused across the Islamic world. In cities that became centres of learning and trade, paper complemented a culture of translation, scholarship, and long-distance commerce, helping to standardise contracts, letters, and manuscripts. By the 12th century, paper mills appeared in parts of Spain and Sicily, marking the start of paper's European journey. At first, parchment and vellum still dominated high-status writing, but paper's lower cost gradually made it the preferred medium for everyday



administration and business, altering who could keep records, copy texts, and circulate ideas beyond elite institutions.

D

The true communications revolution arrived with Johannes Gutenberg's movable-type printing press around 1440. Printing was not simply a faster method of copying; combined with paper, it reduced the unit cost of producing books and pamphlets on a scale that handwriting could not match. This shift is widely linked to the rapid spread of scientific, religious, and political arguments across Europe, because written material could be reproduced consistently and distributed widely. As demand surged, Europe confronted a practical limitation: traditional paper relied heavily on linen and cotton rags, which were finite. Rag shortages drove both regulation and innovation, and paper quality varied sharply depending on fibre supply, exposing a recurring pattern in paper's expansion—progress often depended less on ideas than on access to scalable raw materials.

E

Mechanisation transformed the industry. In 1799, Louis-Nicolas Robert designed a machine capable of producing continuous rolls of paper, later refined by British engineers into systems that could operate at industrial speed. Output rose dramatically, prices fell further, and paper became integral to newspapers, packaging, schooling, and mass administration. In the 19th century, the search for abundant feedstock pushed papermaking toward wood pulp. Chemical pulping processes developed in the 1840s enabled manufacturers to break down tough wood fibres more efficiently, unlocking vast new supply. The result was a material revolution: paper could now be produced at volumes matching the demands of industrialising societies, though it also tied the industry more tightly to forestry and chemical inputs.

F

In the modern era, paper's environmental footprint has come under scrutiny—especially deforestation for pulp, heavy water use, and pollution from bleaching. In response, many producers have expanded recycling, adopted cleaner pulping technologies, and supported certification schemes to signal responsible management. Meanwhile, the digital age has not eliminated paper as once predicted; instead, it has shifted paper's centre of gravity toward packaging, hygiene products, and specialised print, demonstrating that paper's role evolves rather than disappears.

Questions 1–6

Choose the correct heading for each paragraph.

List of Headings



- i A turning point that carried papermaking beyond its original homeland
- ii The immediate replacement of parchment after paper mills reached Europe
- iii A long-term change driven by environmental scrutiny and changing demand
- iv A famous figure whose role was to refine and standardise an existing invention
- v A breakthrough that transformed the spread of written ideas
- vi How industrial machinery enabled paper to be made in continuous form
- vii An early manufacturing method where small variations produced different results
- viii The continuing importance of traditional writing materials in high-status contexts

1 Paragraph A

2 Paragraph B

3 Paragraph C

4 Paragraph D

5 Paragraph E

6 Paragraph F

Questions 7–10

Choose **TRUE** if the statement agrees with the information given in the text, choose **FALSE** if the statement contradicts the information, or choose **NOT GIVEN** if there is no information on this.

- 7 The passage states that the earliest paper in China was made using silk fibres.
- 8 The writer suggests that papermaking in China supported government administration as well as scholarship.
- 9 Paper produced in Spain was considered to be of higher quality than paper from Sicily.
- 10 The writer argues that the digital age has already caused paper use to disappear in packaging.

Questions 11–13

Complete the notes below. Choose **NO MORE THAN TWO WORDS** from the text for each answer.

Archaeological and historical developments in papermaking

- Archaeological evidence indicates that early papermakers used hemp together with linen **11**



- Papermaking moved farther west after a major conflict at **12** in 751 AD.
- Modern producers use certification schemes as evidence of **13**

Answer Key

1. iv
2. vii
3. i
4. v
5. vi
6. iii
7. FALSE
8. TRUE
9. NOT GIVEN
10. FALSE
11. Rags
12. Talas
13. responsible management