Johannes Gutenberg was a pioneer in the use of movable type. When he began building a printing press in 1436, he was unlikely to have realized that he was giving birth to an art form that would take center stage in the social and industrial revolutions which followed.

Gutenberg was German, his press was wooden, and the most important **aspect** of his invention was that it was the first form of printing to use movable type. Although Laurence Koster of Haarlem also laid claim to the invention, scholars have generally accepted Gutenberg as the father of modern printing. A further claim that movable type was used in China as early as 1041 is undisputed. However, the Chinese types were made of (unlike Gutenberg's, which were cast in metal), they were comprised of only oriental characters, and their methods of application differed. Before Gutenberg, the printing press was used only to reproduce pictures, playing cards, and designs on cloth. Designs were cut in wood, stone, or metal and transferred to parchment or vellum. Sometimes a few words of explanation were cut into the printing block, but that was the limit of text printing. Books were copied by hand by monks, which was a labor-intensive undertaking.

Detailed records of Johannes Gutenberg's life and work are **negligible**; his name does not appear on any of the works credited to him. From what is known, Gutenberg was born in Mainz, Germany in about 1400. He worked as a silversmith and also served as a policeman. In 1438, Gutenberg became a partner in a block printing firm. From 1438 to 1455, he experimented with metal type.

Perhaps his most significant **innovation** was the efficient molding and casting of movable metal type. Each separate letter was carved into the end of a steel punch which was then hammered into a copper blank. The copper impression was inserted into a mold and a molten alloy made of lead and tin was poured into **it**. The metal cooled quickly and the resulting reverse image of the letter was attached to a lead base. The width of the lead base varied according to the letter's size (for example, the base of an "i" would not be nearly as wide as the base of a "w"). This emphasized the visual impact of words and clusters of words rather than evenly spaced letters. This novelty lent elegance and sophistication to what seemed to many to be the magically perfect regularity of a printed page.

Gutenberg designed a Latin-print Bible which became his signature work. He printed approximately 300 two-volume Gutenberg Bibles, which sold for 30 florins each, or about three years of a clerk's wage. The copies of the 42-line Bible that remain – about 40 in all – are

among the world's most valuable books. It is known as the 42-line Bible because most of its pages are printed in two columns forty-two lines long. The Library of Congress in Washington. D.C. has one of the three remaining complete and perfect sets.

All in all, Gutenberg's contributions to early printing technology should be classed with the greatest events in the history of the world. It caused a revolution in the development of culture, equaled by hardly any other incident in the Christian Era. Thus, not only has Gutenberg's art been inseparable from the progress of science, but it has also been an indispensable factor in the education of the people at large. Culture and knowledge, until then considered aristocratic privileges peculiar to certain classes, were popularized by typography, although in the process it unfortunately brought about an internal revolution in the intellectual world in the direction of what is profane and free from restraint.

1. What is the main topic of the passage?
   A. The history of printing around the world
   B. The contributions Gutenberg made to typography
   C. The famous 42-line Bible
   D. The different kinds of print type and their applications
2. The word "aspect" in the passage is closest in meaning to _____
   A. feature   B. type   C. relation   D. purpose
3. According to paragraph 2, how were books reproduced before the printing press?
   A. Monks copied them by hand
   B. Designs were cut in wood, stone, or metal and transferred to parchment or vellum
   C. Books were not able to be reproduced at that time
   D. Sometimes a few words of explanation were cut into the printing block, but that was the limit of text printing
4. The word "negligible" in the passage is closest in meaning to _____
   A. insignificant   B. enormous
   C. well-known   D. limited
5. According to the passage, what lent elegance and sophistication to Gutenberg's work?
   A. The letters were all the same size.
   B. A lead base was used for the letters.
   C. The letters "i" and "w" were very stylized.
   D. The letters were aligned with perfect regularity.
6. The word "innovation" in the passage is closest in meaning to _____
   A. metal   B. blank   C. letter   D. novelty

7. Why is Gutenberg's bible called the 42-line Bible?
   A. The complete bible was written in 42 lines.
   B. Most pages contained exactly 42 lines.
   C. Only 42 lines of the bible have been found
   D. The bible consisted of 42 lines per volume
8. According to the passage, the author implies that Gutenberg _____
   A. invented the printing press
   B. was the first to print text
   C. only printed a bible
   D. was not successful at any job
9. In paragraph 6, the author suggests that _____
   A. Gutenberg contributed little to the development of printing
   B. Gutenberg's art has no connection to the progress of modern science
   C. culture and knowledge in the Christian Era was peculiar to all classes
   D. the invention of movable type was a significant event in world history
10. Which of the following sentences should NOT be included in a summary of the passage?
    A. The 42-line Bible is considered Gutenberg's finest work.
    B. Gutenberg changed the way text is produced.
    C. Gutenberg was one of the most famous Germans in history.
    D. Movable metal type was invented by Gutenberg.