

Directions: In this section, you are going to read a passage with ten statements attached to it. Each statement contains information given in one of the paragraphs. Identify the paragraph from which the information is derived. You may choose a paragraph more than once. Each paragraph is marked with a letter. Answer the questions by marking the corresponding letter on **Answer Sheet 2**.

Essay-Grading Software Offers Professors a Break

- A) Imagine taking a college exam, and, instead of handing in a blue book and getting a grade from a professor a few weeks later, clicking the "send" button when you are done and receiving a grade back instantly, your essay scored by a software program. And then, instead of being done with that exam, imagine that the system would immediately let you rewrite the test to try to improve your grade.
- B) EdX, the nonprofit enterprise founded by Harvard and the Massachusetts Institute of Technology (MIT) to offer courses on the Internet, has just introduced such a system and will make its automated(自动的) software available free on the Web to any institution that wants to use it. The software uses artificial intelligence to grade student essays and short written answers, freeing professors for other tasks.
- C) The new service will bring the educational consortium(联盟) into a growing conflict over the role of automation in education. Although automated grading systems for multiple-choice and true-false tests are now widespread, the use of artificial intelligence technology to grade essay answers has not yet received widespread acceptance by educators and has many critics.
- D) Anant Agarwal, an electrical engineer who is president of EdX, predicted that the instant-grading software would be a useful teaching tool, enabling students to take tests and write essays over and over and improve the quality of their answers. He said the technology would offer distinct advantages over the traditional classroom system, where students often wait days or weeks for grades. "There is a huge value in learning with instant feedback," Dr. Agarwal said. "Students are telling us they learn much better with instant feedback."
- E) But skeptics(怀疑者) argue the automated system is no match for live teachers. One longtime critic, Les Perelman, has drawn national attention several times for putting together nonsense essays that have fooled software grading programs into giving high marks. He has also been highly critical of studies claiming that the software compares well to human graders.
- F) He is among a group of educators who last month began circulating a petition(呼吁) opposing automated assessment software. The group, which calls itself Professionals Against Machine Scoring of Student Essays in High-Stakes Assessment, has collected nearly 2,000 signatures, including some from famous people like Noam Chomsky.
- G) "Let's face the realities of automatic essay scoring," the group's statement reads in part. "Computers cannot 'read'. They cannot measure the essentials of effective written communication: accuracy, reasoning, adequacy of evidence, good sense, ethical(伦理的) position, convincing argument, meaningful organization, and clarity, among others."
- H) But EdX expects its software to be adopted widely by schools and universities. It offers free online classes from Harvard, MIT and the University of California-Berkeley; this fall, it will add classes from Wellesley,

Georgetown and the University of Texas. In all, 12 universities participate in EdX, which offers certificates for course completion and has said that it plans to continue to expand next year, including adding international schools.

- I) The EdX assessment tool requires human teachers, or graders, to first grade 100 essays or essay questions. The system then uses a variety of machine-learning techniques to train itself to be able to grade any number of essays or answers automatically and almost instantly. The software will assign a grade depending on the scoring system created by the teacher, whether it is a letter grade or numerical(数字的) rank.
 - J) EdX is not the first to use the automated assessment technology, which dates to early computers in the 1960s. There is now a range of companies offering commercial programs to grade written test answers, and four states—Louisiana, North Dakota, Utah and West Virginia—are using some form of the technology in secondary schools. A fifth, Indiana, has experimented with it. In some cases the software is used as a "second reader," to check the reliability of the human graders.
 - K) But the growing influence of the EdX consortium to set standards is likely to give the technology a boost. On Tuesday, Stanford announced that it would work with EdX to develop a joint educational system that will make use of the automated assessment technology.
 - L) Two start-ups, Coursera and Udacity, recently founded by Stanford faculty members to create "massive open online courses," or MOOCs, are also committed to automated assessment systems because of the value of instant feedback. "It allows students to get immediate feedback on their work, so that learning turns into a game, with students naturally(吸引) drawn toward resubmitting the work until they get it right," said Daphne Koller, a computer scientist and a founder of Coursera.
 - M) Last year the Hewlett Foundation, a grant-making organization set up by one of the Hewlett-Packard founders and his wife, sponsored two \$100,000 prizes aimed at improving software that grades essays and short answers. More than 150 teams entered each category. A winner of one of the Hewlett contests, Vik Paruchuri, was hired by EdX to help design its assessment software.
 - N) "One of our focuses is to help kids learn how to think critically," said Victor Vuchic, a program officer at the Hewlett Foundation. "It's probably impossible to do that with multiple-choice tests. The challenge is that this requires human graders, and so they cost a lot more and they take a lot more time."
 - O) Mark D. Shermis, a professor at the University of Akron in Ohio, supervised the Hewlett Foundation's contest on automated essay scoring and wrote a paper about the experiment. In his view, the technology—though imperfect—has a place in educational settings.
 - P) With increasingly large classes, it is impossible for most teachers to give students meaningful feedback on writing assignments, he said. Plus, he noted, critics of the technology have tended to come from the nation's best universities, where the level of teaching is much better than at most schools.
 - Q) "Often they come from very famous institutions where, in fact, they do a much better job of providing feedback than a machine ever could," Dr. Shermis said. "There seems to be a lack of appreciation of what is actually going on in the real world."
36. Some professionals in education are collecting signatures to voice their opposition to automated essay grading.
37. Using software to grade students' essays saves teachers time for other work.

38. The Hewlett contests aim at improving essay grading software.
39. Though the automated grading system is widely used in multiple-choice tests, automated essay grading is still criticized by many educators.
40. Some people don't believe the software grading system can do as good a job as human graders.
41. Critics of automated essay scoring do not seem to know the true realities in less famous universities.
42. Critics argue many important aspects of effective writing cannot be measured by computer rating programs.
43. As class size grows, most teachers are unable to give students valuable comments as to how to improve their writing.
44. The automated assessment technology is sometimes used to double check the work of human graders.
45. Students find instant feedback helps improve their learning considerably.