① We ought to begin with the crucial distinction between "precision" and "accuracy." These words are not interchangeable. Precision reflects the exactitude with which we can express something. In a description of the length of your commute, [Q 2]. If you ask me how far it is to the nearest gas station, and I tell you that it's 1.265 miles to the east, that's a precise answer. Here is the problem: That answer may be entirely [Q 3] if the gas station happens to be in the other direction. On the other hand, if I tell you, "drive ten minutes or so until you see a hot dog stand. The gas station will be a couple of hundred yards after that on the right. If you pass the shopping malls, you've gone too far," my answer is less precise than "1.265 miles to the east" but significantly better because I am sending you in the direction of the gas station. Accuracy is a measure of whether a figure is broadly consistent with the truth — hence the danger of confusing precision with accuracy. If an answer is accurate, then more precision is usually better. But no amount of precision can make up for inaccuracy.

② In fact, precision can mask inaccuracy by giving us a false sense of certainty, either inadvertently or quite deliberately. Joseph McCarthy, the Red-baiting senator from Wisconsin, reached the apogee of his reckless charges in 1950 when he alleged not only that the U.S. State Department was infiltrated with communists, but that he had a list of their names. During a speech in Wheeling, West Virginia, McCarthy waved in the air a piece of paper and declared, "I have here in my hand a list of 205 — a list of names that were made known to the Secretary of State as being members of the Communist Party and who nevertheless are still working and shaping policy in the State Department." It turns out that the paper had no names on it at all, but the specificity of the charge gave it credibility, despite the fact that it was a bald-faced lie.

③ I learned the important distinction between precision and accuracy in a less malicious context. For Christmas one year my wife bought me a golf range finder to calculate distances on the course from my golf ball to the hole. The device works with some kind of laser; I stand next to my ball in the fairway (or rough) and point the range finder at the flag on the green, at which point the device calculates the exact distance that I'm supposed to hit the ball. This is an improvement upon the standard yardage markers, which give distances only to the center of the green and are therefore [Q 9]. With my Christmas-gift range finder I was able to know that I was 147.2 yards from the hole. I expected the

precision of this nifty technology to improve my golf game. [Q10], it got appreciably worse.

④ There were two problems. First, I used the stupid <u>device</u> for three months before I realized that it was set to meters rather than to yards; every seemingly precise calculation (147.2) was wrong. Second, I would sometimes inadvertently aim the laser beam at the trees behind the green, rather than at the flag marking the hole, so that my "perfect" shot would go exactly the distance it was supposed to go — right over the green into the forest. The lesson for me is that even the most precise measurements or calculations should be checked against common sense.

- Based on Wheelan, Charles. 2013. *Naked Statistics: Stripping the Dread from the Data.*

Q 1. In paragraph ①, the word <u>interchangeable</u> is closest in meaning to –

1. compatible   2. contrasting   3. different   4. illogical   5. inconsistent

Q 2. In paragraph ①, which of the following could be best added in [Q2]?

1. "41.6 miles" is more precise than "31.6 miles," which is more precise than "21.6 miles."

2. "41.6 miles" is more precise than "about 40 miles," which is more precise than "a long way."

3. "A long way" is no less precise than "about 40 miles," which is less precise than "41.6 miles."

4. "About 40 miles" is no more precise than "41.6 miles," which is less precise than "a long way."

5. "A long way" is no more precise than "about 40 miles," which is more precise than "41.6 miles."

Q 3. In paragraph ①, which of the following could be best added in [Q3]?

1. correct   2. inaccurate   3. perfect   4. possible   5. unaffected

Q 4. Which of the following best expresses the essential information in the underlined sentence at the end of paragraph ①?

1. Precision is more important than accuracy.

2. Precision and accuracy are equally valuable.

3. Accuracy is partially comprised of precision.

4. It is precision that makes accuracy more preferable.

5. Precision is not meaningful if accuracy does not exist.

Q5. In paragraph ②, the word <u>deliberately</u> is closest in meaning to –

1. differently   2. intensively   3. intentionally   4. interestingly

5. understandably

Q6. In paragraph ②, the word <u>infiltrated</u> is closest in meaning to –

1. penetrated   2. preoccupied   3. restrained   4. surrendered

5. taken out

Q7. In paragraph ②, the word <u>credibility</u> is closest in meaning to –

1. deceptiveness   2. implausibility   3. irresponsibility   4. predictability

5. trustworthiness

Q8. In paragraph ③, the author uses the phrase <u>a less malicious context</u> because –

1. this paragraph is about politics rather than sports.

2. the episode introduced in the paragraph is a casual one.

3. there does not exist any intention of malice in the story provided.

4. the evilness is inherent in the episode discussed in this paragraph.

5. the example provided in the paragraph is not based on the author's own experience.

Q9. In paragraph ③, which of the following could be best added in [Q9]?

1. accurate and precise   2. accurate but less precise

3. precise but less accurate   4. precise but fewer accurate

5. precise rather than accurate

Q10. In paragraph ③, which of the following could be best added in [Q10]?

1. Accordingly   2. In other words   3. Instead   4. Moreover

5. Specifically

Q11. In paragraph ④, the word <u>device</u> refers to –

1. flag   2. golf club   3. calculator   4. golf range finder

5. standard yardage marker

Q12. In paragraph ④ (line 4), quotation marks (" ") are added to the word *perfect*. Why does the author put quotation marks on this word?

1. Because the author wants to emphasize the meaning of the word.
2. Because the author wants to make the meaning of the word accurate.
3. Because it is the word that the author indeed uttered at the golf range.
4. Because the author uses the word specifically in the context of sports.
5. Because the author wants the reader to understand the irony behind this word.

Q13. Which of the following is NOT mentioned in this article?

1. Things can be precise but not accurate.
2. Precision must be defined before accuracy.
3. Accuracy with more precision is preferable.
4. Precision could provide us a false sense of certainty.
5. Precision and accuracy cannot be replaced by each other.

Q14. In this article, the author explicitly mentions that –

1. by telling a lie, a person can give others a false sense of precision.
2. accuracy is a measure of whether a figure is consistent with exactitude.
3. it is important to bring in common sense to examine precise calculations.
4. a Christmas present may help you to precisely learn about the concept of accuracy.
5. accuracy may sometimes give us a sense of preciseness, while precision may give us a sense of accuracy.

Q15. Which of the following can be inferred from this article?

1. Some people may have a good intuitive understanding of the definitions of precision and accuracy.
2. The issues inherent in the concepts of precision and accuracy are especially important for American statesmen.
3. We would not be able to comprehend the meaning of precision and accuracy at all unless we have our own relevant experience.
4. Although the distinction between precision and accuracy may be hard to understand, applied examples would help us to comprehend them.
5. Individuals who have a clear understanding of measurement units such as centimeters and kilograms are more likely to learn the meanings of precision and accuracy.

[II] Read the passage carefully and answer the questions that follow. For each question, choose ONE BEST answer. On your answer sheet, find the number of the question and fill in the space that corresponds to the number of the answer you have chosen.

① The day a routine checkup spotted some blood in my urine, my doctor sent me for a diagnostic test in which I was injected with a radioactive dye. I lay on a table while an overhead X-ray machine took successive images of the dye's progression through my kidneys and bladder. I had company for the test: a close friend, a physician himself, happened to be visiting for a few days and offered to come to the hospital with me. He sat in the room while the X-ray machine, on an automated track, rotated for new camera angles, whirred and clicked; rotated, whirred, clicked.

② The test took an hour and a half. At the very end a kidney specialist hurried into the room, quickly introduced himself, and disappeared to scan the X-rays. He didn't return to tell me what they showed.

③ As we were leaving the exam room my friend and I passed the nephrologist. Feeling shaken and somewhat dazed by the test, I did not have the presence of mind to ask the one question that had been on my mind all morning. But my companion, the physician, did: "Doctor," he said, "my friend's father died of bladder cancer. He's anxious to know if you saw any signs of cancer in the X-rays."

④ "No abnormalities," was the curt reply as the nephrologist hurried on to his next appointment.

⑤ My inability to ask the single question I cared about most is repeated a thousand times each day in hospitals and clinics everywhere. A study of patients in physicians' waiting rooms found that each had an average of three or more questions in mind to ask the physican they were about to see. But when the patients left the physician's office, an average of only one and a half of those questions had been answered. This finding speaks to one of the many ways patients' emotional needs are unmet by today's medicine. Unanswered questions feed uncertainty, fear, catastrophizing. And they lead pateints to balk at going along with treatment regimes they don't fully understand.

⑥ These are many ways medicine can expand its view of health to include the emotional realities of illness. For one, patients could routinely be offered fuller information essential to the decisions they must make about their own medical care; some services now offer any caller a state-of-the-art computer search of the medical literature on what ails them, so that patients can be more equal partners with their physicians in making informed decisions. Another approach is programs that, in a few minutes' time, teach patients to be effective questioners with their physicians, so that when they have three questions in

mind as they wait for the doctor, they will come out of the office with three answers.

⑦   Moments when patients face surgery or invasive and painful tests are <u>fraught with</u> anxiety — and are a prime opportunity to deal with the emotional dimension. Some hospitals have developed presurgery instruction for patients that help them <u>assuage</u> their fears and handle their discomforts — for example, by teaching patients relaxation techniques, answering their questions well in advance of surgery, and telling them several days ahead of surgery precisely what they are likely to experience during the recovery. The result: patients recover from surgery an average of two to three days sooner.

⑧   Being a hospital patient can be a tremendously lonely, helpless experience. But some hospitals have begun to design rooms so that family members can stay with patients, cooking and caring for them as they would at home — a <u>progressive</u> step that, ironically, is routine throughout the Third World.

⑨   Relaxation training can help patients deal with some of the distress their symptoms bring, as well as with the emotions that may be <u>exacerbating</u> their symptoms. An exemplary model is Jon Kabat-Zinn's Stress Reduction Clinic at the University of Massachusetts Medical Center, which offers a ten-week course in mindfulness to patients; the emphasis is on being mindful of emotional episodes as they are happening, and on cultivating a daily practice that offers deep relaxation. Hospitals have made instructional tapes from the course available over patients' television sets — a far better emotional diet for the bedridden than the usual fare, soap operas.

⑩   Relaxation is also at the core of the innovative program for treating heart disease developed by Dr. Dean Ornish. After a year of this program, which included a low-fat diet, patients whose heart disease was severe enough to warrant a coronary bypass actually <u>reversed the buildup of</u> artery-clogging plaque. Ornish tells me that relaxation training is one of the most important parts of the program. Like Kabat-Zinn's, it takes advantage of what Dr. Herbert Benson calls the "relaxation response," the physiological opposite of the stress arousal that contributes to such a wide spectrum of medical problems.

⑪   Finally, there is the added medical value of an emphatic physician or nurse, attuned to patients, able to listen and be heard. This means fostering "relationship-centered care," recognizing that the relationship between physician and patient is itself a factor of significance. Such relationships would be fostered more readily if medical education included some basic tools of emotional intelligence, especially self-awareness and the arts of empathy and listening.

- Based on Goleman, Daniel. 1995. *Emotional Intelligence: Why It Can Matter More than IQ.*

Q16. Which option below was the word *company* used in closest meaning to the underlined word company in paragraph ① ?

1. The director, while committed to our project, runs her own *company* as well.
2. Ms. Johnson, currently a pharmacy student, used to be a member of a ballet *company* during her childhood.
3. Just like others in general, one may be able to tell much about a pharmacist by the *company* he or she keeps.
4. Ms. Brown made a groundbreaking decision, even for a *company* with a long history in the pharmaceutical industry.
5. Having passed a national examination for pharmacists, Mr. Smith took a position at a *company* that manufactures medical supplies and devices.

Q17. Which of the following is NOT mentioned in the author's description of patients from paragraphs ① through ⑤ ?

1. It is not unusual that patients' emotional needs are not met in medical services.
2. Many patients are not able to ask their physicians as many questions as they want.
3. In general, those patients whose family members suffered from cancer are less likely to visit physicians.
4. Patients, according to some study, have an average of three or more questions that they want to be answered.
5. When patients' questions are not fully answered by their physicians, it may increase the level of patients' anxieties.

Q18. In paragraph ⑥, in stating that medicine can expand its view of health, the author means that medicine can –

1. expose its ideas on health
2. advance its belief in health
3. condense its value of health
4. obtain its insights into health
5. broaden its perspective of health

Q19. In paragraph ⑥, the word literature is closest in meaning to –

1. articles 2. clinics 3. devices 4. novels 5. staff

Q20. Which of the following can be inferred from paragraph ⑥ about the relationship between patients and their physicians?

1. If patients are effective questioners, physicians would not need to be good communicators.

2. Patients need to be clever enough to choose the type of physicians according to their symptoms.

3. Lessening the knowledge gap creates a better functioning relationship between physicians and patients.

4. Patients should limit the number of questions that they would ask their physicians to a maximum of three.

5. Patients' information technology skills are not necessary for the quality of patient-physician relationships.

Q21. In paragraph ⑦, the phrase fraught with is closest in meaning to -
1. afraid of   2. concerned about   3. fond of   4. full of   5. interested in

Q22. In paragraph ⑦, the word assuage is closest in meaning to -
1. agitate   2. expand   3. intensify   4. mitigate   5. supervise

Q23. In paragraph ⑧, the word progressive is closest in meaning to -
1. depressing   2. essential   3. innovative   4. moderate   5. primitive

Q24. In paragraph ⑨, the word exacerbating is closest in meaning to -
1. alleviating   2. bullying   3. clarifying   4. stabilizing   5. worsening

Q25. In paragraph ⑩, the phrase reversed the buildup of is closest in meaning to -
1. changed the order of   2. decreased the accumulation of
3. generated the cause of   4. inhibited the recovery of
5. intensified the symptoms of

Q26. **Which of the following is NOT mentioned in the author's description of presurgery instruction in this article?**

1. Some presurgery instructions encourage patients to be attentive to their psychological states.

2. Presurgery instructions that some hospitals developed include teaching patients relaxation techniques.

3. Presurgery instruction is only meaningful for patients who are capable of communicating well with physicians.

4. One example of presurgery instruction is to provide patients in advance with the information on the process of recovery.

5. Some presurgery instructions aiming at meeting the emotional needs of patients have positive effects on their recovery from surgeries.

Q27. **Which of the following is NOT mentioned in the author's description of the emotional care of patients at hospitals in this article?**

1. Some relaxation programs have adopted the idea of "relaxation response."

2. At the core of the program for patients with heart diseases developed by Dr. Dean Ornish is relaxation.

3. Watching soap operas has positive effects on patients' symptoms, because those TV shows make patients laugh.

4. Dr. Benson's "relaxation response" refers to the physiological suppression of stress that is beneficial for various medical problems.

5. The medical community would have more to gain if there were additional health practitioners and professionals who are capable of communicating better with their patients.

Q28. **Which of the following would best serve as the title of this article?**

1. Emotion: The Best of All

2. Toward Relationship-centered Care

3. Critical Issues in the Health Care System

4. The Mystery in the Relationship of Patients and Physicians

5. Lonely Patient: Pitiful Circumstances of Patients in Modern Medical Care

[Ⅲ] Read the passage carefully and answer the questions that follow. For each question, choose ONE BEST answer. On your answer sheet, find the number of the question and fill in the space that corresponds to the number of the answer you have chosen.

① Anyone who's taken a language course in school knows how hard it is to learn a foreign language. And, depending on what language you speak natively, some languages are significantly harder than others. For example, it takes an estimated ten years to train an Arabic-English translator to <u>reach full competence</u>, a hard lesson the U.S. government learned after the events of 9/11 in 2001.

② Given this <u>dismal</u> statistic, then, it's all the more impressive to learn that a single group of folks in Mountain View, California, <u>paved the way</u> for carrying out virtually unlimited English-Arabic translation in a matter of months, in addition to more than sixty other languages with a total of more than four thousand language combinations. Funnily enough, the languages that unified this brainy team were C++ and Java, programming languages used by software engineers.

③ You probably guessed it: We're talking about the talented team behind Google Translate. When we sat down with Franz Och of the Google Translate team at its headquarters in Mountain View, he told us that in 50 percent of all Google searches for the word *translation*, users typed in the words "Google Translate." This means that half of all Google users who are interested in translation automatically turn to the machine translation tool that Google offers. Surprised by that number? That probably just means you're a native (or competent) English speaker.

④ You see, if you search the web in English, you'll have no trouble finding content. Or if you're searching in French, German, Chinese, or many other major languages, the online world is your <u>oyster</u>. You can find information on virtually any topic. But what about the hundreds of millions of people who don't speak those languages? That's [Q33] services like Google Translate come in.

⑤ To translate all of the information on the web into and out of so many languages, Google doesn't follow the rules. Instead of relying on complex grammar rules that change from one language to the next, Google figures out the best way to translate a given phrase or paragraph by doing what it does best — crunching lots of numbers. This approach, known as statistical machine translation, feeds computers with very large amounts of language data. With the help of ever-more-sophisticated algorithms, the computers process these data and then employ them to <u>emulate</u> human language in translation. A company like Google naturally has access to two of the three main components of such a

successful system — fast computers and lots of data. The third ingredient, a team of highly skilled computer engineers, wasn't difficult for them to assemble either.

⑥ The Google Translate team now finds that speakers of languages that are not yet offered often lobby for inclusion. Och explained that they are still developing engines for many languages, but there are essentially only two ways to make the cut. One way is to demonstrate an immediate need. When the earthquake hit Haiti in January of 2010, Google used materials collected by a team at Carnegie Mellon University and other sources to release a version of Haitian Creole within days. (Microsoft used the same material for its machine translation engine and released the Haitian Creole version at around the same time.) Though it wouldn't have passed the company's quality threshold under other circumstances, the subsequent widespread use by rescue personnel in Haiti justified the publication of a language that was still only at an alpha stage of testing.

⑦ [Q39], the Persian engine was released during the 2009 Iranian election protests, though it was also technically still in a pre-release state. Again, it was embraced immediately because, as Och points out, "When there's an option in an urgent situation between no translation and an approximated translation, the choice is clear."

⑧ Under calmer circumstances, Google employs the second criterion for releasing a language into public use: quality. To evaluate a language's translation quality, the team uses "language informants" as well as computerized evaluation criteria. Once a language is released, the refinement does not stop. New translated data are produced on an ongoing basis, whether in the form of random information on the web, books accessed through the Google Books program, or user-generated data through tools like Google Translator Toolkit, a tool that allows for the human translation of various document types. According to Och, this is a particularly relevant data source for languages with otherwise relatively little content on the web. The team employs everything that is deemed useful (with the exception of translations produced by Google's own or other machine translation programs) to continuously train existing and new engines.

⑨ And the results? It all depends on the language pair and the expectation. For language pairs like Serbian and Croatian or Hindi and Urdu, languages that are closely related, results might be stunningly good. English and Swedish? Portuguese and Spanish? There you also might find results of high quality. Other language combinations will likely provide a good general idea of what the original text says, which is great if that's what you're expecting.

⑩ We asked Och whether we would ever be able to apply the same quality expectations to Google Translate as we would to a qualified human translator. "Oh," he said with a

grin, "maybe in twenty, or fifty, or in five hundred years." In the meantime, his team will keep working toward their next goal, and ambitious hundred languages, or ten thousand language pairs.

– Based on Kelly, Nataly and Jost, Zetzsche. 2012. *Found in Translation: How Language Shapes Our Lives and Transforms the World*.

Q29. In paragraph ① , the phrase to <u>reach full competence</u> is closest in meaning to -
1 . function as a translator
2 . obtain a bilingual position
3 . achieve an inadequate level
4 . migrate to the United States
5 . become a qualified translator

Q30. In paragraph ② , the word <u>dismal</u> is closest in meaning to -
1 . dramatic   2 . feverish   3 . luminous   4 . specific   5 . unwelcoming

Q31. In paragraph ② , the phrase <u>paved the way</u> is closest in meaning to -
1 . made out   2 . made sure   3 . made possible   4 . made your way
5 . made desirable

Q32. In paragraph ④ , the word <u>oyster</u> is closest in meaning to -
1 . imagination   2 . language   3 . paradise   4 . secret   5 . waste

Q33. In paragraph ④ , which of the following could be best added in [Q33] ?
1 . that   2 . what   3 . when   4 . where   5 . which

Q34. From paragraphs ① through ④ , which of the following can be inferred?
1 . A native speaker of Japanese may have a harder time learning a foreign language than a native speaker of English.
2 . The Google Translate team is currently working on a project that converts programming languages to a common language.
3 . Because Google's translation services are expected to be further developed, learning a foreign language may become obsolete in the future.
4 . In general, speakers of major languages, such as English or French, are in an advantageous position to find content through web searches.
5 . Individuals with expertise in computer programming languages are more likely to master foreign languages faster than those without such background.

Q35. In paragraph ⑤, the word <u>emulate</u> is closest in meaning to -

1. accommodate   2. generate   3. imitate   4. rationalize   5. verify

Q36. From paragraph ⑤, which of the following can be inferred?

1. The mechanism operating in Google Translate essentially follows traditional translation rules.

2. As of today, Google Translate focuses more on incoming translation than outgoing translation.

3. Under the framework of statistical machine translation, the complexity of grammatical rules is not the primary concern.

4. In Google's current approach, the introduction of sophisticated algorithms excels in its importance over any other parts of the translation process.

5. Three components necessary to establish the statistical machine translation system are fast computers, native speakers of the languages, and a team of highly skilled computer engineers.

Q37. In paragraph ⑥, the word <u>lobby</u> is closest in meaning to -

1. deny   2. pressure   3. room   4. suspend   5. sustain

Q38. In paragraph ⑥, the phrase <u>an alpha stage</u> is closest in meaning to -

1. an early stage   2. a higher stage   3. a complex stage
4. an important stage   5. a provocative stage

Q39. In paragraph ⑦, which of the following could be best added in [Q39] ?

1. Lastly   2. However   3. In short   4. Similarly   5. Consequently

Q40. In paragraph ⑦, the word <u>embraced</u> is closest in meaning to -

1. adopted   2. degraded   3. excluded   4. generated   5. shunned

Q41. Which of the following best expresses the essential information in the underlined sentence at the end of paragraph ⑦ ?

1. There is no doubt that one should choose no translation if not urgent.

2. It is not difficult to choose an approximated translation if no alternative exists.

3. If it is an urgent situation, a rough translation would be preferred over no translation.

4. In an emergency, priority should be given to a rough translation over a fine translation.

5. When there is an option in a normal situation, an approximated translation should not be chosen.

Q42. In paragraph ⑧ , the word deemed is closest in meaning to -

1. considered   2. crafted   3. made   4. provided   5. rendered

Q43. Which of the following is true of the author's description in this article?

1. Around 50 percent of Google users in the world regularly use "Google Translate."

2. The popularity of Google as a search engine is primarily based on their translation services.

3. According to a staff member of the Google Translate team, his team, for the time being, will prioritize quantity over quality.

4. The translation service that Google offers is capable of producing high quality translations regardless of the pair of languages.

5. Under normal situations, Google is concerned with the quality of translated outcomes, yet does not engage in continuous revisions.