

Please answer all of the following questions in the answer sheet. (Total marks 50)

Section One: Reading Skills:

(Reading 1) Choose the words with similar meanings from the box.

a. see-through b. operation c. making bigger d. unpredicted e. instrument

1. When they used a lens for magnification, they could see many more details.
2. I went to the hospital to have surgery to correct my vision.
3. The wall of the playroom was transparent so parents could watch their kids.
4. When we got on the plane, we had to turn off our electronic devices.
5. Because of an unforeseen accident, the play has been cancelled.

1 Look in the mirror—are you wearing glasses right now? Did you choose that particular pair of glasses because of their function or because of their design? Nowadays, we have many options to choose from.

2 Glasses have come a long way since the time of their origin. The first record of lenses used for magnification appears in an Egyptian text from around the 5th century B.C. Yet the first mention of eyeglasses did not come until more than a millennium and a half later. In 1306, a religious leader in Italy mentioned that eyeglasses had been around for two decades. From that, we can infer that they were invented around 1286. In the 18th century, Benjamin Franklin developed the technology further when he created bifocals.

3 In spite of advances like contact lenses and laser eye surgery, glasses remain popular today. What will be the next major leap in the evolution of glasses? Technology companies are researching ways to make glasses into wearable computers. Perhaps these will one day replace smartphones. Future glasses may have a function that is completely apart from correcting vision. They may look like the glasses of the past, with a headband that runs across your forehead and hooks behind each ear. But instead of having lenses, they may hold a partially transparent screen in front of your eyes. Using this screen, you may be able to make calls, browse the Internet, and get directions. In addition to a screen, future glasses may have an earpiece, speaker, and microphone, which may allow you to control the device through speech. If you actually need glasses to correct your vision, however, you may have to hope that these futuristic features can be built into regular glasses.

4 The glasses of the future sound very convenient, but it's likely they will have some unforeseen side effects. It would be a good idea to study their impact before we start wearing screens in front of our eyes all the time.

Words 328

1. What is the passage mainly about?

- a. how glasses were invented in ancient Egypt
- b. why glasses have not changed much since their invention
- c. the benefits of making wearable computers in the future
- d. how glasses have evolved and what they might be like in the future

2. The main purpose of the fourth paragraph is to
- explain what glasses will probably look like in the future
 - warn readers about a possible problem with future glasses
 - make readers excited about possible developments in eyewear
 - explain the differences between glasses of the past and the present
3. The word partially in the passage is closest in meaning to
- not quickly
 - not correctly
 - not regularly
 - not completely
4. Where did the first record of lenses appear?
- in an 18th century book about eye surgery
 - in notes made by the inventor Benjamin Franklin
 - in an Egyptian text from the 5th century B.C.
 - in a talk given by an Italian leader
5. Which is NOT mentioned as a feature of future glasses?
- They will fill the function of a smartphone.
 - They will have a partially see-through screen.
 - They will be controlled through speech.
 - They will be more comfortable than regular glasses.
6. What can be inferred about future glasses?
- They will not contain lenses that correct vision.
 - They will cost less than current glasses.
 - They will be less breakable than normal glasses.
 - They will not need to be worn every day.
7. What step in the evolution of eyeglasses happened in the 18th century?
8. How may future glasses differ in appearance from the glasses of the past?
9. Why should the impact of future glasses be studied?

Fill in the blanks to best describe the main text.

The History of Glasses

The Historical Development of Eyeglasses

- Egyptian records from the 5th century B.C. mentioned lenses being _____

- _____ happened around 1286.
- Benjamin Franklin _____
_____ in the 18th century.

Future Glasses

- Wearable computers may:
 - fill _____
 - have a purpose aside from _____
 - have a screen that sits _____
 - be controlled _____
- Caution: _____ should be studied before they are widely adopted.

in front of your eyes	used for magnification
the function of smartphones	through speech
the invention of eyeglasses	side effects
correcting vision	developed bifocals

(Reading 2) Choose the words with similar meanings from the box.

a. Save

b. global

c. clear

d. end

e. mix

1. The top of the mountain was visible through the clouds.
2. Eric cut off the tip of the carrot first.
3. This milkshake is a combination of ice cream, banana, and chocolate.
4. The national parks started a campaign to preserve nature.
5. The Internet is a worldwide tool for communication.

1 No matter what you touch, you always leave behind fingerprints. Fingerprints are those patterns on the tips of your fingers. They are more unique than a person's DNA. That's why when fingerprints are left at a crime scene, the police can use them to help catch the criminal.

2 The study of fingerprints is a fairly contemporary practice. In the 1870s, a man named Henry Faulds noticed that fingerprints had been left behind on pieces of ancient pottery which he dug up in Japan. He was inspired to study fingerprints and later published a paper in Nature magazine in 1880. In it, he wrote about ways to use fingerprints to catch criminals. Soon, the idea began to spread. In 1901, Scotland Yard started a Fingerprint Bureau. And the next year, fingerprints were first used as evidence in a British court.

3 Today, we know that fingerprint patterns are made by ridges in the skin. Our sweat glands produce oils on our skin that cause fingerprints to be left behind on things. Fingerprints are all unique, but they have common patterns such as loops, whorls, and arches. It's the combination of these patterns in different sizes that makes fingerprints so unique.

4 The police have forensic experts gather prints at crime scenes or from suspects. The forensic experts can collect fingerprints from different objects in order to find criminals. They dust the prints with a powder to make fingerprints visible. Then they press a film against a print to copy them. This can then be preserved and compared against prints taken from people. In the past, people put their fingers in ink and left their fingerprints on paper. Today, they can place their fingers on a scanner and the images can be saved on computers and shared worldwide.

5 For years, criminals have tried to change their fingerprints to avoid the police. Some damage them, but they grow back in the same patterns. There's no doubt that collecting fingerprints gives the police an advantage when it comes to catching criminals.

1. What is the passage mainly about?

Words 335

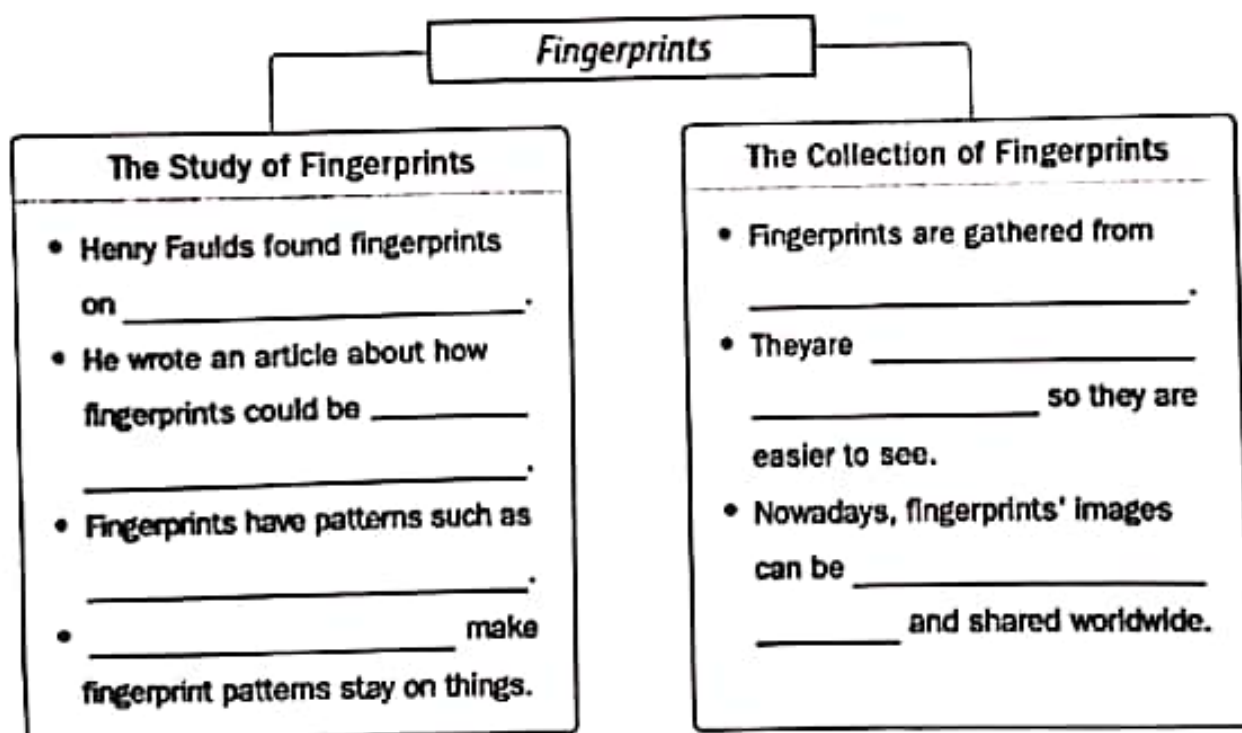
- a. how fingerprints are used to help police
- b. how Henry Faulds studied fingerprints
- c. why it's necessary to gather everyone's fingerprints
- d. how detectives collect fingerprints and preserve them

2. The main purpose of the second paragraph is to

- a. discuss how Henry Faulds invented forensic science
- b. introduce the famous Scotland Yard to readers
- c. predict how ancient pottery preserved fingerprints
- d. explain how the idea to use fingerprints to catch criminals began

3. The word contemporary in the passage is closest in meaning to
a. ancient b. modern c. practical d. old-fashioned
4. When were fingerprints first used as evidence in a court?
a. 1870 b. 1880 c. 1901 d. 1902
5. Which is NOT true about collecting prints at crime scenes?
a. The police have forensic experts gather prints.
b. Fingerprints are collected from many objects.
c. People's fingers are dusted with powder to make fingerprints visible.
d. A film is pressed against fingerprints to collect them.
6. What can be inferred about fingerprint patterns?
a. They can only be left behind on oily surfaces.
b. Two people can have the same fingerprint patterns.
c. Some people are born without fingerprint patterns.
d. Without sweat glands, it would be impossible to collect fingerprints.
7. What inspired Henry Faulds to study fingerprints?
8. What patterns do fingerprints have?
9. How were fingerprints collected from people in the past?

Fill in the blanks to best describe the main text.



- | | |
|---|--|
| <ul style="list-style-type: none"> dusted with powder old pieces of pottery saved on computers crime scenes | <ul style="list-style-type: none"> oils in our skin loops, whorls, and arches used to catch criminals |
|---|--|

Section Two: Academic Technical Writing:

1. Restate the following using the general techniques of Summarization:

The invention of the incandescent light bulb by Thomas A. Edison in 1879 created a demand for a cheap, readily available fuel with which to generate large amounts of electric power. Coal seemed to fit the bill, and it fueled the earliest power stations (which were set up at the end of the nineteenth century by Edison himself). As more power plants were constructed throughout the country, the reliance on coal increased. Since the First World War, coal-fired power plants have accounted for about half of the electricity produced in the United States each year. In 1986 such plants had a combined generating capacity of 289,000 megawatts and consumed 33 percent of the nearly 900 million tons of coal mined in the country that year. Given the uncertainty in the future growth of nuclear power and in the supply of oil and natural gas, coal-fired power plants could well provide up to 70 percent of the electric power in the United States by the end of the century.

Source: McEachern, W.A. (1991). *The History of Electricity* (2nd ed.). Cincinnati, OH: South-Western, page 3.

2. Paraphrase using different synonyms:

"The U.S. government declared that the AIDS crisis poses a national security threat. The announcement followed an intelligence report that found high rates of HIV infection could lead to widespread political destabilization."

Source: Snell, H. (2005). *AIDS and its effect on the American Community*. London: Croom Helm, page 14.

3. Paraphrase using different definition structures:

"Lyme disease is an inflammatory disease caused by a bacterium transmitted by ticks (small bloodsucking arachnids that attach themselves to larger animals). The disease is usually characterized by a rash followed by flu-like symptoms, including fever, joint pain, and headache."

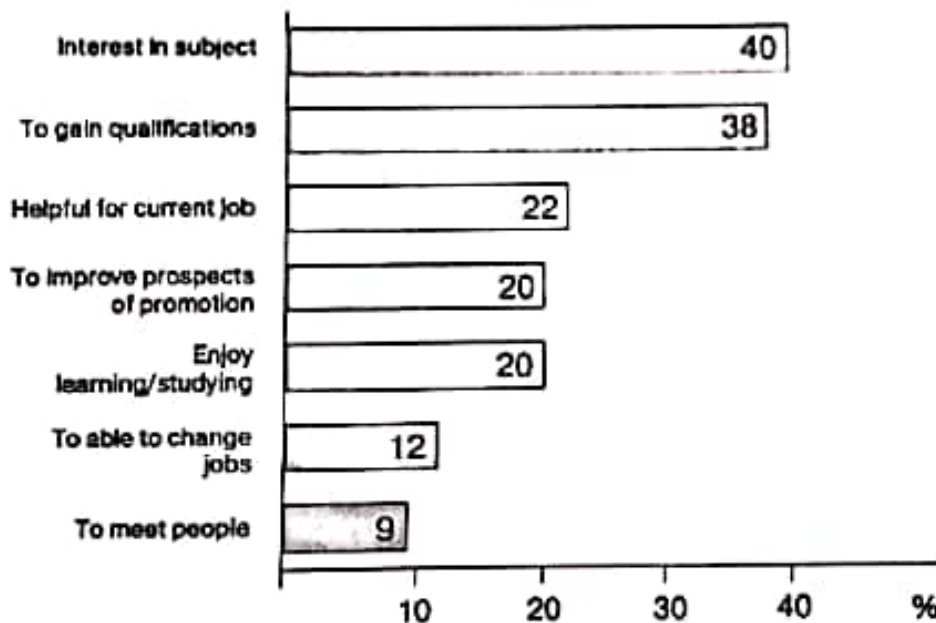
Source: Singal, A.G., Mukherjee, A., Joseph Elmunzer, B. et al. (2013) *Machine learning*. Am J Gastroenterol.108: 1723–1730

4. Paraphrase by changing the sentence structure, and different connecting words:

"Although only about one-tenth of the world's population lives there, sub-Saharan Africa remains the hardest hit region, accounting for 72 percent of the people infected with HIV during 2000."

Source: Llovet, J.M., Bustamante, J., Castells, A. et al. Rationale for the design and evaluation of therapeutic trials. Hepatology. 1999; 29: 62-67

5. The charts below show the results of a survey of adult education. It shows the reasons why adults decide to study Engineering. Write a report for a university lecturer, describing the information shown below. (Introduction and Description) You should write at least 100 words.



VI. Give a complete definition of the following terms

Arch - CAD - CAM - CFD - Concrete

Best of Luck





Answer Key

Please answer all of the following questions in the answer sheet. (Total marks 50)

Section One: Reading Skills:

(Reading 1) Choose the words with similar meanings from the box.

1. c. making bigger
2. b. operation
3. a. see-through
4. c. instrument
5. d. unpredicted

1. d. how glasses have evolved and what they might be like in the future
2. b. warn readers about a possible problem with future glasses
3. d. not completely
4. c. in an Egyptian text from the 5th century B.C.
5. d. They will be more comfortable than regular glasses.
6. a. They will not contain lenses that correct vision.
7. Benjamin Franklin created bifocals
8. Instead of having lenses, they may hold a partially transparent screen.
9. It's likely they will have some unforeseen side effects

D
B
D
C
D
A

The History of Glasses

The Historical Development of Eyeglasses

- Egyptian records from the 5th century B.C. mentioned lenses being used for magnification.
- The invention of eyeglasses happened around 1286.
- Benjamin Franklin developed bifocals in the 18th century.

Future Glasses

- Wearable computers may:
 - fill the function of smartphones
 - have a purpose aside from correcting vision
 - have a screen that sits in front of your eyes
 - be controlled through speech
- Caution: Side effects should be studied before they are widely adopted.

(Reading 2) Choose the words with similar meanings from the box.

1. c. clear
2. d. end
3. e. mix
4. a. Save.
5. b. global.

1. a. how fingerprints are used to help police
2. d. explain how the idea to use fingerprints to catch criminals began
3. b. modern
4. d. 1902
5. c. People's fingers are dusted with powder to make fingerprints visible.
6. d. Without sweat glands, it would be impossible to collect fingerprints.
7. Henry Faulds was inspired to study fingerprints after he noticed that fingerprints had been left behind on pieces of ancient pottery.
8. They have patterns such as loops, whorls, and arches
9. In the past, people put their fingers in ink and left their fingerprints on paper

A
D
B
D
C
D

Fingerprints

The Study of Fingerprints

- Henry Faulds found fingerprints on old pieces of pottery.
- He wrote an article about how fingerprints could be used to catch criminals.
- Fingerprints have patterns such as loops, whorls, and arches.
- Oils in our skin make fingerprint patterns stay on things.

The Collection of Fingerprints

- Fingerprints are gathered from crime scenes.
- They are dusted with powder so they are easier to see.
- Nowadays, fingerprints' images can be saved on computers and shared worldwide.

Section Two: Academic Technical Writing:

1. Restate the following using the general techniques of Summarization:

The answer may vary according to the different styles of writing of the students

2. Paraphrase using different synonyms:

The government of the United States announced that AIDS could harm the nation's security. The government warned the population after an important governmental study concluded that political problems could result from large numbers of people infected with HIV (Snell, 2005).

3. Paraphrase using different definition structures:

Lyme disease-a disease that causes swelling and redness-is caused by a bacterium carried by a small arachnid known as a tick. The ticks attach to and suck the blood of animals and humans. As a tick bites, it transfers some of the Lyme disease bacteria into the animals or human. The symptoms of Lyme disease include a fever, pains in the joints, and a headache (Wald, 2005).

4. Paraphrase by changing the sentence structure, and different connecting words:

Approximately 10 percent of the world's population resides in sub-Saharan Africa. However, this area of the world has the highest percentage of AIDS-related illnesses. In fact, in 2000, almost three-fourths of the population had the HIV virus (Bunting, 2004).

5. The charts below show the results of a survey of adult education. It shows the reasons why adults decide to study Engineering. They will write a report for a university lecturer, describing the information shown below. (Introduction and Description) Students should write at least 100 words.

VI. Give a complete definition of the following terms

Arch: is a semicircle shape over an entrance

CAD: Computer aided design refers to using computer technology to create computer models of objects.

CAM: Computer aided manufacturing refers to the use of computer technology to help build the parts of a machine

CFD: computational fluid dynamics refers to the use of mathematical formulas to study problems related to the movement of fluids and gases

Concrete: is a construction material made out of cement, crushed rocks, and other materials

Best of Luck

