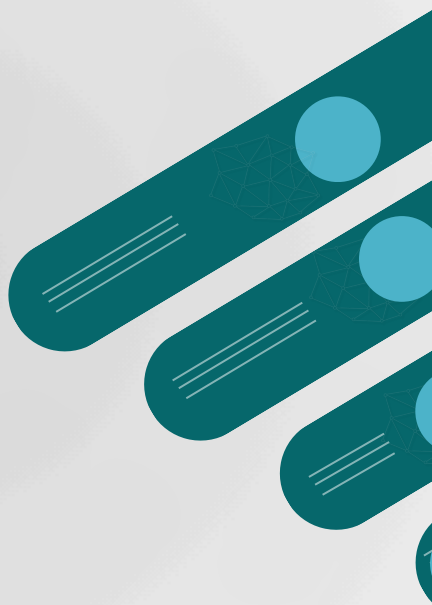


step

اهم القطع في الستيب

2026



(1) Over the roar of the fire, Mike heard Ben shout, "Hurry! The fire is almost on us!" Mike's arms were sore and tired, but he swung his axe even faster. He didn't even stop to wipe the tears from his stinging eyes. The greedy fire kept coming. The more the fire destroyed, the more it wanted. Mike worked shoulder to shoulder with the other smokejumpers to build a firebreak. His only thought was to stop the flaming monster that was raging through the forest.

(2) At last, the smokejumpers finished the firebreak. If the fire were powerful enough, it would jump over the firebreak that they had worked so hard to make. Then they would have to start all over again. Mike stood motionless, his face black with ash, his shirt wet with sweat. He was too exhausted to move because he had given all of himself to fighting the fire. He turned his head and noticed Ben watching him.

(3) Suddenly all that Ben had taught Mike about proving his bravery was clear. A man was not brave if he did something just to prove his courage. He was brave only when he forgot about himself. Today Mike had showed that he cared very much about the others with whom he was working.

Q1

According to Paragraph 1), it was hard for Mike to do job because.....

A his arms were strained and painful

B he COULDN'T think very well

C he was busy with other things

D he DIDN'T work with others

Q2

According to Paragraph 1), Mike's only thought as he tried to put out the fire was -
A. to please his boss

A to please his boss

B to pump more water

C to stop the blazing fire

D to get something to drink

Q3

According to Paragraphs 1) and 2), the smokejumpers-built a to stop the fire from spreading...

A fence

B trench

C firebreak

D water line

Q4

The word greedy in Paragraph 1) means wanting ...

A More

B Less

C Some

D A Little

4	3	2	1	الرقم
A	C	C	A	الحل

(1) Over the roar of the fire, Mike heard Ben shout, "Hurry! The fire is almost on us!" Mike's arms were sore and tired, but he swung his axe even faster. He didn't even stop to wipe the tears from his stinging eyes. The greedy fire kept coming. The more the fire destroyed, the more it wanted. Mike worked shoulder to shoulder with the other smokejumpers to build a firebreak. His only thought was to stop the flaming monster that was raging through the forest.

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5

The pronoun it in Paragraph 1) refers to...

- A the axe
- B the fire
- C the roar
- D the smoke

6

The words the flaming monster in Paragraph 1) refer to...

- A Ben
- B the fire
- C the burning forest
- D the smokejumpers

7

According to Paragraph 2), Mike was too exhausted to move because...

- A he had sweat all over him
- B he was covered with black ash
- C Ben did NOT give him much help
- D he had given so much to fight the fire

8

According to Paragraph 3), Ben taught Mike that being brave involves

- A working with proper tools
- B avoiding fire hazards
- C losing one's courage
- D caring for others

8	7	6	5	الرقم
D	D	B	B	الحل

- (1) Over the roar of the fire, Mike heard Ben shout, "Hurry! The fire is almost on us!" Mike's arms were sore and tired, but he swung his axe even faster. He didn't even stop to wipe the tears from his stinging eyes. The greedy fire kept coming. The more the fire destroyed, the more it wanted. Mike worked shoulder to shoulder with the other smokejumpers to build a firebreak. His only thought was to stop the flaming monster that was raging through the forest.
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9

The pronoun his in Paragraph 3)
refers to..

- A A man
- B A fireman
- C Mike
- D Ben

			9	الرقم
			A	الحل

1. The Eastern Caribbean Island of St. Lucia is a part of a chain of volcanic islands known as the Lesser Antilles. St. Lucia is famous for its geothermal activity; heat from the earth's center creates natural hot pools and springs that attract tourists looking to relax in a natural bath!
2. St. Lucia may only be a small island-43 kilometres long and a maximum of 23 kilometres wide (covering 16 square kilometres in total) but its landscape is mixed. There are volcanic beaches, coral diving sites, luxury holiday resorts and fishing villages, and 76 square kilometres of rich rainforest.
3. The island of St. Lucia is known for its pair of pointy mountains, the Pitons, on its west coast. The west coast, where the capital city Castries is found, is met by the Caribbean Sea and is known for its amazing diving! The east coast of the island meets the Atlantic Ocean.
4. The entire population of St Lucia is approximately 178,000 people which is quite low. Over the centuries, this island has attracted settlers from all over the world, so it has a rich culture. A wide range of religions, music, languages and food can be found here.
5. Most people were Amerindians, Caribs and European settlers (mainly from France). During the 19th century, waves of travelers from Europe, the Middle East, and even Japan made their lives in the Caribbean

1

What is one important idea related to St. Lucia's landscape that the writer mentions?

- A It has luxury resorts.
- B It has Japanese settlers.
- C It has a variety of cultures.
- D It has many natural attractions.

2

What is one important idea related to St. Lucia's population that the writer mentions?

- A The population is mostly Amerindians.
- B Its settlers are from the Middle East.
- C It has a small number of people.
- D It is a small island

3

What does the writer want to show by the example of hot pools and springs?

- A geothermal activity
- B resort attractions
- C a mixed landscape
- D reasons settlers came.

4

What is the main topic of the passage?

- A St. Lucia's tourism
- B St. Lucia's history
- C St. Lucia's culture
- D St. Lucia's geography

4	3	2	1	الرقم
D	A	C	D	الحل

Although their effects on human populations are devastating, tropical cyclones can relieve drought conditions. They also carry heat energy away from the tropics and transport it toward temperate latitudes, which makes them an important part of the mechanism. As a result, tropical cyclones help to maintain equilibrium in the Earth's troposphere, and to maintain a relatively stable and warm temperature worldwide.

1

The word **their** in the passage refers to...

A tropical cyclones

B coastal flooding

C storm surges

D drought conditions

2

The word **equilibrium** in the passage is closest in meaning to.....

A equality

B pressure

C airflow

D balance

		2	1	الرقم
		D	A	الحل

1. An American-born giant panda will soon be travelling to China. The Chinese government has an agreement with foreign zoos to lend giant pandas out only for scientific study. After a few years, they, and any cubs they may produce, must all be returned to China. Mei Lan, a three-year-old female, is being prepared for her trip to China, where her parents were born. A special FedEx flight from the U.S. is being arranged for her.
2. Chinese Zookeepers are getting ready for her arrival by planning a special diet, and even language lessons for her. They are advertising for a tutor to teach Mei Lan Chinese. The caretakers at her new home, the Chengdu Panda Research Center in Sichuan, want to help her adapt quickly and feel comfortable in her new environment. Mei Lan has lived at a zoo in the city of Atlanta, Georgia, since her birth, and she is unfamiliar with Chinese. The teacher must have a bachelor's degree or higher and be fluent in both English and Chinese.

The panda Mei Lan is of Chinese

origin
البداية من الأصل

Q1

The word tutor in Paragraph 2) is closest in meaning to..

A speaker

B scientist

C keeper

D teacher

Q2

According to Paragraph 2), why do the Chinese zookeepers want Mei Lan to learn Chinese?

A so that she will feel at home in China

B so that she can speak with her caretakers

C so that she can forget her English

D so that she will like her new diet

Q3

According to Paragraph 2, Where has Mei Lan been living?

A in the Chengdu Panda Research Center

B in an American research center

C in Atlanta, Georgia

D in Sichuan, China

	3	2	1	الرقم
	C	A	D	الحل

- 1.1) Husayn ibn Abdullah Ibn Sina is well known in the Arab world simply as «Ibn Sina».
2. He is also well known in the West by the name «Avicenna» which simplifies the pronunciation. In 980 A.D. Avicenna was born in Bukhara which is now part of Russia and known as Uzben. By the age of 10, he was already proficient in the Qur'an and Arabic classics. By the age of 16, he finished Islamic law studies, geometry, anatomy, logic and philosophy. By the age of 18, he completed the study of medicine. Soon after that, he became the Prime Minister and the physician of the Ruler of Bukhara. The Ruler was impressed by the intelligence and endurance of his Prime Minister and opened for him Library which was unique in its literary richness.
- 3.(2
4. Avicenna's life was extraordinarily exhausting. All day long he was busy with his patients and government work. At night, he was busy lecturing and writing books.
5. After many years of hard work and many achievements, Avicenna died in 1037 A.D. at the age of 57.
- 6.3) Avicenna wrote 100 treatises: 21 of them were major of which 16 were in medicine.
7. He wrote a book in medicine named Al Qanon fi Al Tibb. It was translated into many languages. Al Qanon fi Al Tibb is an encyclopedia containing more than one million words. It consists of five volumes.

1
The word proficient in Paragraph 1) is closest in meaning to.....

- A skilled
- B trained
- C dedicated
- D disciplined

2
According to par 1) why does the Western world use a different name for Ibn-Sina?

- A They did NOT like Arabic names.
- B They did NOT want the world to know his nationality.
- C Names change when used by speakers of a different language.
- D He did NOT speak their language.

3
According to P 1), Soon after Ibn Sina finished his study of medicine, he became the

- A manager of the Royal Library.
- B assistant of the Prime Minister.
- C teacher of the Ruler of Bukhara.
- D doctor for the Ruler of Bukhara.

4
According to Paragraph 2), which statement describes Avicenna's life?

- A He worked mainly during the day.
- B He scarcely worked at night.
- C He used to travel a lot.
- D He worked very hard.

4	3	2	1	الرقم
D	D	C	A	الحل

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5

According to Paragraph 3), Al Qanon fi Al Tibb, consists of

A 5 volumes

B 16 encyclopedias

C 21 chapters

D 100 treatises

6

According to P 3), which of the following is TRUE about Al Qanon fi al Tibb?

A It has never been translated.

B It has been translated into many languages.

C It has been translated into a few languages.

D It has not been translated into the Russian language.

		6	5	الرقم
		B	A	الحل

The buildings and monuments that we can see today at Mada'in Saleh are remnants of the great and very rich Nabatean kingdom. Other famous buildings of this civilization are found in northern Syria and in Petra in Jordan, which was the Nabatean capital.

1

What does the passage say about Petra?

A It is in northern Syria.

B It is the capital of Jordan.

C It was the Nabatean capital.

D It was a successful commercial city

			1	الرقم
			C	الحل

An Air India flight bound for New Delhi with 130 people onboard made a n emergency landing in southern Pakistan last week due to technical problems, aviation officials said. The Airbus A320 from Abu Dhabi made the unscheduled stop at Nawabshah airport, around 230 kilometers northeast of the port city of Karachi, Pakistan.

1

The flight was going to

A Abu Dhabi

B Karachi

C Nawabshah

D New Delhi

2

The word unscheduled in the passage is closest in meaning to.....

A NOT planned

B NOT timed

C extra

D Long

		2	1	الرقم
		A	D	الحل

No matter whether you're travelling for work or pleasure, wouldn't you value the option to tailor your journey in accordance with your personal preferences and requirements? That's exact why we developed our Red Services: a range of highly practical extra services that you can book along with your flight, as and when you need them.

1

Which method of travel does the passage talk about?

A Road

B Rail

C Sea

D Air

2

What does the passage give information about?

A valuable items

B booking methods

C personalized services

D product requirements

		2	1	الرقم
		C	D	الحل

- 1.(1) If we look at the night sky carefully, we will see that the stars are of many different
- 2.colors. Some are red, others are yellow and some are blue. This is also shown when we
- 3.take color photographs of the night sky. You can take such a photograph with an
- 4.ordinary camera as long as it is kept steady. A thirty second exposure is sufficient.
- 5.(2) Astronomers have been able to classify stars according to color. They have found
- 6.that blue stars are the largest and red stars the smallest. However, there are a few stars
- 7.which cannot be classified in this way. These are the superstars. For example, Rigel is a
- 8.blue superstar as big as 40,000 suns and Betelgeuse is a superstar with a size equal to
- 9.17,000 suns.

10.(3) Suppose an astronomer observes two stars, one brighter than the other. If neither of them is a superstar, he will know immediately that the brighter star is closer.

Astronomers have instruments like light meters which can measure the brightness of a star quite accurately. It is possible to measure a star's distance from the earth if astronomers know the color, brightness and whether or not it is a superstar.

Q1

The pronoun it in Paragraph (1) refers to the

A photograph

B exposure

C camera

D Stat

Q2

The word brighter in Paragraph (3) is closest in meaning to...

A more colorful

B more shiny

C smaller

D larger

Q3

Which of the following colors is NOT mentioned in the passage?

A Green

B Yellow

C Blue

D Red

	3	2	1	الرقم
	A	B	C	الحل

1. The paper we use today is made by machine. Trees are cut up and processed into a mixture called wood pulp. The pulp, containing tiny cellulose fibers, is pressed and rolled out to form sheets of paper.
 2. The first manmade writing material was not paper. About 4,000 years ago, the ancient Egyptians took the fibrous stems of the papyrus plant, flattened them, laid them crosswise and pressed them down to stick them together. When dried, this made a piece of papyrus that could be written on.
 3. Paper was first made in China around the year 105 CE by a man called Ts'ailun. He found a way to make paper from the stringy inner bark of the mulberry tree. The bark was pounded in water to separate the fibers. This mixture was then poured into a bamboo tray to let the water drain out. After that, the soft mat of paper was moved onto a smooth, flat surface to dry. Later, someone discovered that the paper could be improved by brushing it with starch to make it stronger.
 4. Chinese traders travelled around Asia as far as Samarkand. There, they met with Arab merchants who learned the secret of making paper and took it to Spain.
- Afterwards, the art of papermaking spread throughout the rest of Europe.
- 5) Since then, many kinds of machines have been invented and improved methods discovered for making paper. One of the most important, for example, was a machine developed in France in 1798. This machine could make a continuous sheet or web of paper. Before, paper could only be produced in separate sheets.

1

According to Paragraph 2), what did the early Egyptians use to make their writing material?

A mulberry bark

B wood pulp

C bamboo

D papyrus

2

The word them in Paragraph 2) refers to....

A Ancient Egyptians

B writing materials

C papyrus stems

D Paper

3

The first real paper was made in

A China

B Egypt

C France

D Samarkand

4

Who introduced the paper-making process to Europe?

A Ts'ailun

B Chinese traders

C the Arabs

D the Spanish

4	3	2	1	الرقم
C	A	C	D	الحل

1. The paper we use today is made by machine. Trees are cut up and processed into a mixture called wood pulp. The pulp, containing tiny cellulose fibers, is pressed and rolled out to form sheets of paper.
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5

Which component is necessary for making both paper and papyrus?

- A tree bark
- B tree wood
- C plant starch
- D fibrous materia

6

According to Paragraph 4), exercising for 15 minutes daily can...

- A add three years to your total life time.
- B lengthen your life by 22 minutes.
- C decrease the risk of death by 4%.
- D lower heart disease by 4%.

		6	5	الرقم
		A	D	الحل

1. Hijama, also known as "cupping", was one of the treatments recommended by Prophet Muhammad (peace be upon him). It is still practiced in some parts of the world and has many medical benefits. When Hijama is performed, small cuts are made at specific body sites, and impure blood is taken out. This blood is collected in small glass "cups". Afterwards, the body feels refreshed and energized, having been cleansed of impurities and toxins or poisons.
2. Hijama can sometimes offer relief where other forms of treatment or medications have failed. It is highly recommended in cases of lethargy and dullness, and for people with headaches, indigestion or sleeping problems. These complaints can be signs that the body is suffering from some form of toxicity.
3. A qualified Hijama practitioner must use clean instruments and utensils and perform the therapy carefully and with great sensitivity. Treatment is often performed on the 17th, the 19th or the 21st of the lunar month. When done in coordination with a healthy diet and exercise, Hijama can give long-lasting, satisfactory results. Ideally, it should be done at least once a year.

1

According to Paragraph 1), what is one benefit of Hijama?

A refreshed blood.

B an energized body.

C Satisfactory results.

D cupping blood.

2

According to Paragraph 2), Hijama is used to treat all of the following EXCEPT...

A signs of toxicity.

B indigestion.

C lethargy.

D cuts on the body.

3

According to Paragraph 2), what is the cause of some headaches?

A cleansed blood.

B sleeping programs.

C toxins in the body.

D failed medication.

4

According to Paragraph 3), how often should Hijama be performed on a person?

A 3 days every month.

B once every lunar month.

C every other month.

D once a year or more.

4	3	2	1	الرقم
D	C	D	B	الحل

Hijama, also known as "cupping", was one of the treatments recommended by Prophet Muhammad (peace be upon him). It is still practiced in some parts of the world and has many medical benefits. When Hijama is performed, small cuts are made at specific body sites, and impure blood is taken out. This blood is collected in small glass "cups". Afterwards, the body feels refreshed and energized, having been cleansed of impurities and toxins or poisons. Hijama can sometimes offer relief where other forms of treatment or medications have failed. It is highly recommended in cases of lethargy and dullness, and for people with headaches, indigestion or sleeping problems. These complaints can be signs that the body is suffering from some form of toxicity.

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5

What can we understand about Hijama?

A It should NOT be used along with exercise.

B It can give relief which lasts for 17, 19 or 21 days.

C It can put impure blood into the body using small glass "cups".

D It should be performed using clean instruments.

			5	الرقم
			D	الحل

1.From: <ahmad.adbullah@globalconsilants.com>

2.To: < hamad.salih@globalconsultants.com>

3.Date: October 28, 2013

4.Subject: Meeting with PR

5.I'm having a meeting with the public relations specialist tomorrow afternoon at 1 p.m. I need you to have five final hard copies of our updated company profile ready as well as the PowerPoint presentation preloaded onto the conference room computer with everything set up. Mr. Ali has been asked to make sure there are enough refreshments available for up to ten people. Please make sure you arrive prior to the start time, as I was not pleased when the guests and I arrived before you at the last event. In addition, make sure to bring the extra materials that I discussed with you in my office yesterday. As I will not return to the office today and will be out tomorrow morning. I won't see you until the meeting tomorrow afternoon.

6.Thank you, Ahmad Abdulla

7.President Global Consultant.

1

Why was Mr. Ahmad NOT pleased with Mr. Hamad?

A Mr. Hamad forgot to bring extra materials at a past event.

B Mr. Hamad arrived later than him at a past event.

C Mr. Hamad was unable to attend a past event.

D ...

2

When did Mr. Ahmad and Mr. Hamad have their last meeting?

A the day after the message was sent.

B the day before the message was sent.

C the morning that the message was sent.

D a few days before the message was sent.

		2	1	الرقم
		B	B	الحل

1. My uncle Ahmad is a physician. He helps people when they are sick. When his patients go to the office, he may ask them to breathe while he listens to their chest. Then he listens to the sound of the air in their lungs. He may have to ask them many questions and examine them to see what is making them sick. He helps people have better health.

1

This passage is about a...

A university teacher

B medical doctor

C patient

D nurse

2

The word examine in the passage is closest in meaning to...

A talking

B looking

C listening

D questioning

		2	1	الرقم
		B	B	الحل

Adam is not as tall as Eric.

1

The passage says that...

A Eric is taller

B Eric is shorter

C Adam is taller

D Adam and Eric are short

			1	الرقم
			A	الحل

1. The damage you described in your letter dated Jury has now been inspected.
2. The faults in the wiring appear to have been caused by dripping water from the floor above. The electrical contractor, who installed the wiring in February, tells me that the wall was dry at the time he replaced the old wires. However, we will arrange for repairs to be made and seal off that section.
3. Dura's floor is one of the most hardwearing materials of its kind on the market and we were surprised to hear that it had worn away within six months, so we made a closer inspection. We noticed that the floor had been cut into and this seems to have been the result of dragging heavy metal boxes across it. The one-year guarantee we offer on our workmanship is against
4. 'normal wear and tear' and the treatment the floor appears to have been subjected to does.

1

According to paragraph (4) Pizza can have a fair amount of vitamins and minerals

A A variety of ingredients

B A lot of cheese

C Crunchy crust

D Different styles

2

According to paragraph (4), Pizza is NOT a good example of a health food because it is..

A Low in fat

B High in calories

C Short of carbohydrates

D Short of grains

3

What is the best title for the passage?

A Pizza Hut

B Preparing Pizza

C The Popularity of Pizza

D How Pizza Came to America

	3	2	1	الرقم
	C	B	A	الحل

Daniel Smith is an old-fashioned and hard-working professor of Linguistics. He is not quite popular among his students because he foolishly expects everyone else to work the long hours that he does.

1

Who works long hours?

A everyone

B the students

C the linguists

D the professor

			1	الرقم
			D	الحل

(1) Freeware is software a user can download from the internet free of charge. Once it has been downloaded, there are no fees associated with using the software (examples include: Adobe, Skype or media players). Unlike free software, freeware is subject to copyright laws and users are often requested to tick a box to say they understand and agree to the terms and conditions governing the software. This basically means that a user is not allowed to study or modify the source code in any way.

Shareware

(2) In this case, users are allowed to try out some software free of charge for a trial period. At the end of the trial period, the author of the software will request that you pay a fee if you like it. Once the fee is paid, a user is registered with the originator of the software and free updates and help are then provided. Very often, the trial version of the software is missing some of the features found in the full version, and these don't become available until the fee is paid. Obviously, this type of software is fully protected by copyright laws and a user must make sure they don't use the source code in any of their own software. Permission needs to be obtained before this software is copied and given to friends, family or colleagues.

1

What does Paragraph (1) say about freeware?

- A It has source code that can be changed.
- B It has rules that users must follow.
- C It is necessary to update it often.
- D It is similar to free software.

2

Which sentence gives the main idea of Paragraph (1)?

- A Freeware is software a user can download from the internet free of charge
- B Once it has been downloaded, there are no fees associated with using the software
- C Unlike free software, freeware is subject to copyright laws and users are often requested to tick a box to say they understand and agree to the terms and conditions governing the software.
- D This basically means that a user is not allowed to study or modify the source code in any way.

3

What does Paragraph (2) say about shareware's trial period?

- A You can change the source code.
- B You can share it with friends and family.
- C You can use all of the software's features.
- D You can use the software for a limited time

4

Which of the following statements about shareware Paragraph (2) support?

- A Users can try it before buying it.
- B Users can share it easily with anyone.
- C Users can download it on their phones.
- D Users can create their own software.

4	3	2	1	الرقم
A	D	A	B	الحل

1. A mysterious, orange, sticky gel, found on the beaches of Kivalina, a village situated on the Alaskan coast between Kotzebue and Point Hope, was recently the source of much interest. Many people thought that the sticky gel was some strange compound that had spread as a result of a chemical reaction. Others had more farfetched ideas about the substance's origins ranging from aliens to volcanic remains.
2. Scientists at an Alaskan laboratory have been busy analyzing the unknown substance. They have concluded that it is a formation of microscopic eggs. One of the scientists said that there are traces of oil in the eggs, and this is what is causing the strange, orange color.
3. The scientists have discovered that the eggs belong to a small invertebrate
- a spineless animal, but they have not been able to identify the exact species.

1

According to Paragraph (1), the strange, orange substance was found...

- A on the beaches of Kotzebue
- B on the beaches of Point Hope
- C close to a compound in Alaska
- D between Kotzebue and Point Hope

2

The word far-fetched in Paragraph (1) is closest in meaning to

- A difficult to believe
- B easy to believe
- C definite
- D clear

3

The word it in Paragraph (2) refers to.....

- A traces of oil
- B a microscope
- C the unknown substance
- D one of Alaska's laboratories

	3	2	1	الرقم
	C	A	D	الحل

1. Rome is known for many things: its military conquests, its civic architecture, temples, roads, emperors, and sculpture. Yet none of these would have been possible without the most vital resource of all: water. Now, as then, water is life, and without effective distribution, there would have been no great Roman civilization. Even until relatively modern times, Roman techniques to collect, store, and channel water over huge distances remain unsurpassed.
2. Such technology, was not, of course, invented from scratch by the Romans, and many earlier Mediterranean peoples had poured resources and expertise into managing water. On the island of Crete, the Minoans developed sophisticated rain-harvesting and filtering systems as early as the middle of the third millennium B.C. Cretan water management techniques were later adopted across the Greek-speaking world, and examples abound of tunnels, drainage systems, and cisterns, sometimes of considerable size.
3. Yet although the water management tradition Rome inherited was rich and extensive, no previous system came close to the sophistication and reach of the Roman aqueduct. Striding across the landscape from Spain to Syria, these awe-inspiring structures not only carried life and livelihood but also proclaimed the greatness of Rome.
4. Aqueducts were costly public works, and not all Roman cities necessarily required them. Some cities, such as Pompeii, had their water needs met by wells or public and private cisterns dug beneath houses. Some cisterns could reach a colossal size, such as the Basilica Cistern (Yerebatan Sarnici) in Constantinople (now Istanbul, Turkey) and the Piscina Mirabilis in Miseno, Italy. The better built to provide drinking water to the populations such as Rome's thought to have reached one million in the first century AD, needed an entire system of aqueducts not only for drinking water but also for supplying ornamental public fountains and baths.
5. Rome was supplied by aqueducts totaling 315 miles in length. Of that, 269 miles ran underground and 46 total miles above ground; however, only about 36 miles consisted of arched structures, just under 12 percent in all.
6. Rome had as many as 11 aqueduct systems, the most ancient of which was the mile-long Aqua Appia, first operational in 312 B.C. It was named for its sponsor, the censor Appius Claudius Caelius, better known for another great pioneering structure of ancient Rome: the Appian Way, one of the first major Roman roads.
7. Three more aqueducts were built in the third and second centuries B.C.: Aqua Anio Vetus, Aqua Marcia, and Aqua Tepula. Aided by his son-in-law Marcus Vipsanius Agrippa, Emperor Augustus was particularly active in improving the capital's water supply, repairing old systems and building new ones. The Augustan-era Aqua Virgo named, according to legend, for the young girl who directed thirsty soldiers to the springs that fed it has been used uninterrupted ever since its construction. During his reign, Caligula began building two aqueducts that were finished by Emperor Claudius, the Aqua Claudia and Aqua Anio Novus. Trajan built the Aqua Traiana, which is 37 miles long, in A.D. 109.
8. The last of Rome's aqueducts was the Aqua Alexandrina, nearly 14 miles long, built by Alexander Severus in A.D. 226. Some have calculated that, once completed, Rome's aqueducts delivered roughly 1.5 million cubic yards of water per day—about 200 gallons per person. Its water network supplied 11 grand scale baths, as well as the 900 or so public baths, and almost 1,400 monumental fountains and private swimming pools. A crucial later stage in the conveying of water was, of course, its disposal. Rome's Cloaca Maxima sewer, which flowed into the Tiber River, became the model for urban sanitation.

1

Who developed rain harvesting in the third millennium B.C.?

A Minoans

B Romans

C Greeks

D Egyptians

2

How long were Rome's aqueducts in total?

A 249 miles

B 46 miles

C 315 miles

D 112 miles

3

When did Trajan build the Aqua Traiana?

A A.D. 109

B A.D. 226

C 312 B.C.

D 37 B.C.

	3	2	1	الرقم
	A	C	A	الحل

1. The Holy Quran tells us that insects form communities Surat al-An'am, 38) and that they can communicate more than 1,400 years afterwards, has accepted that this information is indeed correct. Now, scientists in the United Kingdom are learning that some of these amazing creatures may also have feelings and emotions similar to those of humans.
2. At Newcastle University, they are trying to discover how some insects feel. In recent years, honeybee numbers have been declining worldwide at a disturbing rate. Many explanations have been given for this. Some say the bees are dying because of disease and pesticides. Others say it may be due to pollution or microwave towers. At any rate, this is a very serious situation, for humans as well as for the bees. At least one-third of the world's crops depend on bees. Farmers are worried. What about the bees? How do they feel? Are they scared, sad or depressed?
- (3) The researchers trained a group of bees to tell the difference between two smells. After one smell, they were always given a sweet sugar reward. After the other smell, they were given a bitter substance. They quickly learned to choose the smell with the sweet prize and to stick out their tongues to get it. The scientists wanted to see what the bees would do if they were put in a stressful situation. They shook up half of the bees, to make them think they were in danger.
- These stressed bees refused to put out their tongues for new smells, and only chose the old smell which they knew would be followed by a sweet treat. Even though there was an equal chance that a strange smell would taste good, it seemed they believed it would taste bad and were afraid to try it. These bees had become "pessimists". The other half-the unstressed bees-were much more likely to try tastes from new smells, thus remaining "optimists"
- (4) When humans are stressed, anxious, worried or depressed, they have lower levels of the brain hormone serotonin. So did the stressed bees. This may mean that the feelings of anxious and stressed bees are similar to those of humans with mood disorders. This knowledge, along with further investigations into bee behavior and "feelings" can hopefully be used to understand and remedy their declining numbers, for their sake and for ours.

1

The words these amazing creatures in Paragraph 1) refer to ...

- A Bees
- B insects
- C scientists
- D communities

2

Why are bees important to humans?

- A They have communities and can communicate
- B They are necessary to produce our food crops.
- C They are becoming more numerous than us.
- D They have feelings like us.

3

Which paragraph describes how the scientists trained the bees?

- A Paragraph 1)
- B Paragraph 2)
- C Paragraph 3)
- D Paragraph 4)

4

What can we understand about optimists in Paragraph 3)?

- A They are afraid to try new experiences.
- B They prefer the smells they learn first.
- C They are NOT afraid to try new things.
- D They feel stressed and worried.

4	3	2	1	الرقم
C	C	B	B	الحل

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5

What is the main idea of Paragraph 4)?

- A** Humans and bees have the same hormones.
- B** Humans are more affected by stress than bees.
- C** Understanding similar feelings in humans and bees may help both.
- D** Training stressed bees is important for treating human mood disorders.

			5	الرقم
			C	الحل

- 1.(1) Anybody who doesn't know much about nanotechnology should begin with geckos. These are the lizards that are probably the world's best climbers. Watching them climb upside down on a horizontal pane of glass, you realize that Spiderman should really have been called Geckoman. These guys out-climb spiders any day.
2. With perfect ease they can hang from a single toe, and they do so by pure adhesion, not by sticking a toe in a hole or by curling it round something they can grip. With all the toes on the glass, scientists guess that if the rest of the body were strong enough it could take the weight of a 100kg person suspended below it. Although each toe is equipped with a tiny hook-like claw at the end, these are of no use on the glass. What keeps them up there is the amazing structure of the skin of the toe.
3. Seen under the microscope, each toe has around two million tiny hairs on its underside. Under the higher magnification of an electron microscope the end of each of these hairs is seen to split into hundreds of even tinier nano-hairs, which scientists have called spatulae. These hairs are so small that they are able to establish contact with the molecular structure of the surface the gecko is walking on. With that near-perfect contact the hairs are stuck to the surface by electromagnetic forces called Van der Waals forces. The molecules on the feet and on the surface have areas of slight positive or negative charge that attract each other like mini magnets when they get really close.
4. Scientists have been working for over 15 years now to try to unlock the secrets of the stickiness of gecko toes and find a way to artificially reproduce the same structure of nano-hairs. The hypothesis at the moment is that if any material can be shaped into nano-hairs they will have the same properties as those on gecko toes, so scientists are looking for a different material with which to make the stickiest synthetic surface ever.

1. This is one example of research in the field now known as nanotechnology. In this field, the technology being created can be measured in a few nanometers (one nanometer is a millionth of a millimeter). Interest in developing technology at this level was largely inspired by Richard Feynman at the beginning of the 1960s, but the 'nano' catchphrase was coined in the 1990s by Dr. Eric Drexler, who spurred scientists on through a series of speeches and a book with the title "Engines of Creation: The Coming Era of Nanotechnology".
2. The scientists working on the geckos see an enormously wide range of possible applications for the kind of adhesive nanotechnology that they will develop the one that will make the biggest splash in the media will be the gloves and the boots that will allow rock climbers to take their sport to hitherto undreamed-of heights. But the technology could also be used in surgery to keep the edges of wounds together without the need for stitches. There will also be a huge potential in the manufacturing sector to stick millions of components together tighter than ever before without glue or screws.

1

How many hairs does a gecko have at the bottom of each toe?

- A fifteen
- B hundreds
- C around two thousand
- D around two million

2

What are the forces that allow geckos to climb upside down on glass called?

- A Van der Waals forces
- B Sticking forces
- C Electric forces
- D Spatulae forces

3

Who started using the popular phrase "nano"?

- A Geckoman
- B Eric Drexler
- C Albert Einstein
- D Richard Feynman

	3	2	1	الرقم
	B	A	D	الحل

1. (1) Giant birds of the past have names that speak for themselves. The Elephant bird, a native of Madagascar and the largest known giant bird, stood at over nine feet tall and weighed in at 1,000 pounds or more, until it went extinct about 1,000 years ago.
2. Australia's Mthirung, nicknamed "Thunderbird," which disappeared nearly 50,000 years ago, is thought to have been nearly seven feet tall and weighed between 500 and 1,000 pounds. But until now, no one had ever found evidence of these towering avians in Europe.
3. Today, researchers describe the first fossil of a giant bird found in Crimea. Dated at around 1.8 million years old, the specimen makes experts question previous assumptions that giant birds were not part of the region's fauna during that period
4. A team of paleontologists dug up the fossil, an unusually large femur bone, in Taurida Cave, located on the Crimean Peninsula in the northern Black Sea. The cave was only discovered last June when the construction of a new highway revealed its entrance.
5. Based on the femur's dimensions, the team calculated that the bird would have weighed around 992 pounds as much as an adult polar bear-making it the third largest bird ever recorded. Daniel Field, a scientist at the University of Cambridge, says, "It raises exciting questions about the factors that gave rise to these giant birds, and the factors that drove them to extinction".

1

What two phrases does the writer use to say that the birds were very large?

- A giant bird and towering avian
- B elephant bird and native of Madagascar
- C large femur bone and the region's fauna
- D seven feet tall and nicknamed "Thunder bird"

2

Which of the following does the writer say is a fact?

- A The Thunderbird lived in Australia and Europe.
- B The femur is the largest bone in the body.
- C The Elephant bird was over nine feet tall.
- D Researchers found a polar bear fossil.

3

How are researchers' views since the new discovery different from the views held before?

- A They now know what the birds ate.
- B They now know what the birds looked like.
- C They now know when the birds became extinct.
- D They now know a new place in which the birds lived

4

What can we understand about the giant bird of Crimea from Paragraph (3)?

- A Researchers found it at the bottom of the Black Sea.
- B Highway workers found it at a construction site.
- C Researchers did not find all the bones
- D We can see it in the Crimea Museum.

4	3	2	1	الرقم
C	D	C	A	الحل

- 1.(1) Giant birds of the past have names that speak for themselves. The Elephant bird, a native of Madagascar and the largest known giant bird, stood at over nine feet tall and weighed in at 1,000 pounds or more, until it went extinct about 1,000 years ago.
- 2.Australia's Mthirung, nicknamed "Thunderbird," which disappeared nearly 50,000 years ago, is thought to have been nearly seven feet tall and weighed between 500 and 1,000 pounds. But until now, no one had ever found evidence of these towering avians in Europe.
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5

What can be understood about
Daniel Field from paragraph (4)?

A He studies fossil

B He found the fossil.

C He weighed the fossil.

D He studies at Cambridge
University.

			5	الرقم
			A	الحل

Limited liability means that if a business is unable to pay its debts the owners of the company can only lose the money that they have paid for shares. Sole traders and partnerships have unlimited liability. If the business cannot pay its debts, the owners have to pay them out of their own money. They may have to sell their house and other personal possessions to pay the business's creditors. The importance of limited liability is that people can put money into a firm by buying shares, without risking the loss of all their money if the company fails. If limited liability did not exist, people would be less willing to risk investing in firms.

1

The word "Liability" in the passage is closest in meaning to

A activity

B Control

C influence

D responsibility

2

The word "traders" in the passage is closest in meaning to

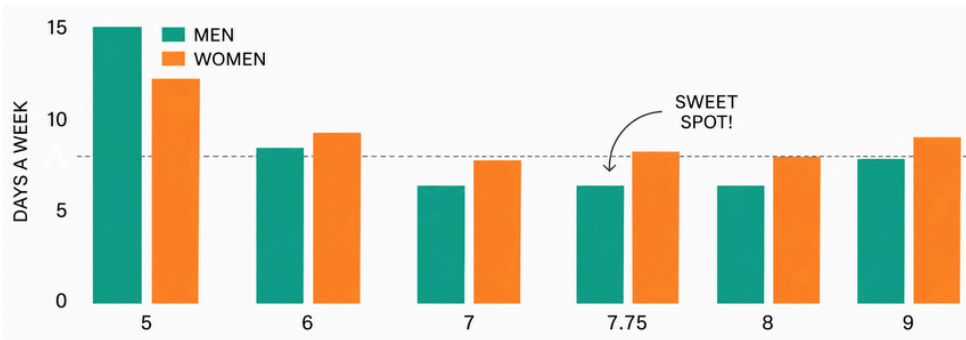
A professionals

B specialists

C dealers

D leaders

		2	1	الرقم
		C	D	الحل



1

Which group has the lowest number of days absent?

A Men who sleep between 7 and 8 hours.

B Women who sleep between 7 and 8 hours

C Men and women who do not stay up late at night.

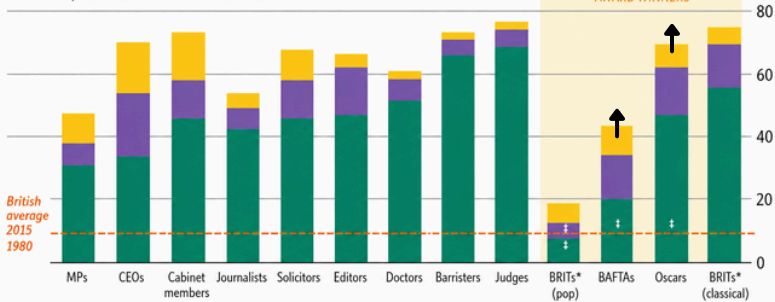
D Men and women who sleep at least 8 hours a night.

			1	الرقم
			D	الحل

British professions

% privately educated

Mid/late 1980s Mid 2000s 2015



Source: The Sutton Trust
Economist.com

* BRITs since 1977, Classical BRITs since 2000

1

In 2015, how many of Britain's CEOs were educated at private schools?

A around 38%

B around 55%

C around 70%

D around 87%

			1	الرقم
			A	الحل

Not long after paper was invented in China in the first century C.E., the art of folding paper emerged. Paper spread to Japan by the sixth century where the rich, who were able to buy the little paper that was available and had the leisure time to practice, developed origami Japanese for folding, "ori," and paper, "kami").

5

The word leisure in the passage is closest in meaning to...

A free

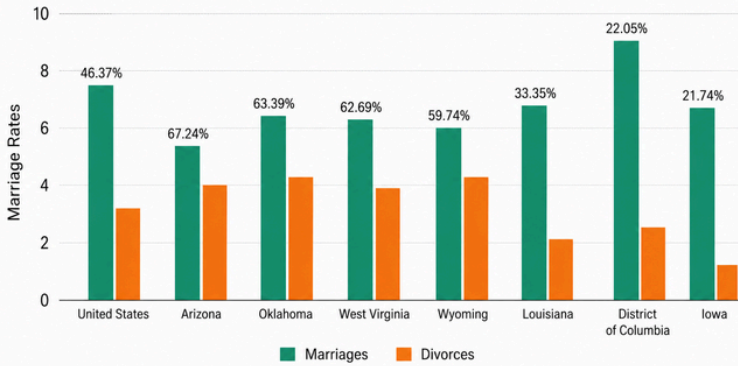
B ease

C holiday

D relaxation

			5	الرقم
			A	الحل

2014 Marriage and Divorce Rates per 1,000 People



1

Which state had the most marriages per 1000 people in 2014?

A District of Colombia

B Oklahoma

C Wyoming

D Arizona

2

Which state has the fewest divorces rates per 1000 people?

A West Virginia

B Oklahoma

C Louisiana

D Iowa

		2	1	الرقم
		D	A	الحل

- (1) If we look at the night sky carefully, we will see that the stars are of many different colors.
- Some are red, others are yellow and some are blue. This is also shown when we take color photographs of the night sky. You can take such a photograph with an ordinary camera as long as it is kept steady. A thirty second exposure is sufficient.
- Astronomers have been able to classify stars according to color. They have found that blue stars are the largest and red stars the smallest. However, there are a few stars which cannot be classified in this way. These are the superstars. For example, Ryiejol is a blue superstar as big as 40,000 suns and Beetle juice is a superstar with a size equal to 17,000 suns.
- Suppose an astronomer observes two stars, one brighter than the other. If neither of them is a superstar, he will know immediately that the brighter star is closer. Astronomers have instruments like light meters which can measure the brightness of a star quite accurately. It is possible to measure a star's distance from the earth if astronomers know the color, brightness and whether or not it is a superstar.

1

The pronoun it in Paragraph 1) refers to the...

A photograph

B exposure

C Camera

D Star

2

According to Paragraph 1, the exposure time needed to photograph the night sky in color is..

A 10 seconds

B 15 seconds

C 20 seconds

D 30 seconds

3

The word sufficient in Paragraph 1) is closest in meaning to...

A enough

B necessary

C required

D significant

4

According to Paragraph 2), Beetle juice is a superstar...

A as big as the sun

B smaller than the sun

C as big as 17,000 suns

D as big as 40,000 suns

4	3	2	1	الرقم
C	A	D	C	الحل

- (1) If we look at the night sky carefully, we will see that the stars are of many different colors.
- Some are red, others are yellow and some are blue. This is also shown when we take color photographs of the night sky. You can take such a photograph with an ordinary camera as long as it is kept steady. A thirty second exposure is sufficient.
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5

The word brighter in Paragraph 3) is closest in meaning to...

A more colorful

B more shiny

C smaller

D larger

6

According to Paragraph 2), astronomers classify stars according to the following EXCEPT...

A Size

B Color

C Shape

D brightness

7

Which of the following colors is NOT mentioned in the passage?

A green

B Yellow

C blue

D Red

8

What is the main idea of the passage?

A Astronomers have been able to measure how far the stars are from each other.

B Astronomers have certain instruments to measure the color of the stars.

C We can know the color of the stars by taking a photograph of the sky at night.

D Stars can be categorized according to color and size.

8	7	6	5	الرقم
D	A	C	B	الحل

1. Like all insects, ants have six legs. Each leg has three joints. The legs of the ant are very strong so they can run very quickly. If a man could run as fast for his size as an ant can, he could run as fast as a racehorse. Ants can lift 20 times their own body weight. An ant brain has about 250,000 brain cells. A human brain has 10 billion brain cells, so a colony of 40,000 ants has collectively the same number of brain cells as one human brain.
2. The average life expectancy of an ant is 45-60 days. Ants use their antennae not only for touch, but also for smell the head of the ant has a pair of large, strong jaws. The jaws open and shut sideways like a pair of scissors. Even adult ants cannot chew and swallow solid food. Instead, they swallow the juice which they squeeze from pieces of food and throw away the dry part that is left.
3. (3)
4. The ant has two eyes, each of which is made of many smaller eyes, so they are called compound eyes. The abdomen of the ant contains two stomachs. One stomach holds the food for itself and the second stomach is for food to be shared with other ants. Like all insects, the outside of their body is covered with a hard armor called the exoskeleton. Ants have four distinct growing stages, the egg, larva, pupa and the adult are classified as a special group of wasps.
5. There are over 10,000 known species of ants. They all live in social groups usually called colonies. A colony has one or more queens. The sole duty of a queen is to lay eggs. The worker ants, all of whom are female, cannot produce eggs; they take care of the queen and the eggs she produces. Since the worker ants are sterile, their roles within the colony might be looking after the young, providing food, or defending the nest from unwanted visitors. Ants are clean and tidy insects, so some worker ants are given the job of taking the rubbish from the nest and putting it outside in a special rubbish dump. Each colony of ants has its own smell. In this way, intruders can be recognized immediately. Many ants, such as the red species, have stingers which they use to defend their nest. However, some ants - like black ants and wood ants - have no stingers, but can squirt acid to defend themselves and the colony.
6. 5) Ants are interesting creatures. They have very tiny bodies but live in a complex social community. They are not simply pests, as many people think; in point of fact, they represent a positive example of how planning and teamwork should work in our societies.

1

What is the main idea of the passage?

A There are different kinds of ants.

B Ants are similar to other insects.

C Ants are fascinating creatures

D Ants present a good example for other insects.

2

According to Paragraph 2, which of the following is TRUE?

A Compared to other insects' ants live for a short time.

B Ants cut their food and then eat it.

C Some of the ant's senses work through its antennae.

D Only young ants can swallow solid food.

3

According to Paragraph 2), adult ants can only swallow food that is...

A Dry

B Solid

C chewed.

D liquid.

4

According to Paragraph 3), an exoskeleton is common to...

A larva.

B all insects.

C only wasps.

D only ants.

4	3	2	1	الرقم
B	D	C	C	الحل

1. Like all insects, ants have six legs. Each leg has three joints. The legs of the ant are very strong so they can run very quickly. If a man could run as fast for his size as an ant can, he could run as fast as a racehorse. Ants can lift 20 times their own body weight. An ant brain has about 250,000 brain cells. A human brain has 10 billion brain cells, so a colony of 40,000 ants has collectively the same number of brain cells as one human brain.
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5

The word compound in Paragraph 3), is closest in meaning to...

A complex.

B whole.

C round.

D complete.

6

According to Paragraph 4), all worker ants can...

A lay eggs.

B squirt acid.

C sting their intruders.

D protect their territory.

7

According to Paragraph 4), ants live in...

A families.

B colonies.

C isolation.

D small group.

8

According to Paragraph 4), ants can know outsiders by their...

A Size.

B Smell.

C Sound

D behavior.

8	7	6	5	الرقم
B	B	D	A	الحل

1. Like all insects, ants have six legs. Each leg has three joints. The legs of the ant are very strong so they can run very quickly. If a man could run as fast for his size as an ant can, he could run as fast as a racehorse. Ants can lift 20 times their own body weight. An ant brain has about 250,000 brain cells. A human brain has 10 billion brain cells, so a colony of 40,000 ants has collectively the same number of brain cells as one human brain.
2. The average life expectancy of an ant is 45-60 days. Ants use their antennae not only for touch, but also for smell the head of the ant has a pair of large, strong jaws. The jaws open and shut sideways like a pair of scissors. Even adult ants cannot chew and swallow solid food. Instead, they swallow the juice which they squeeze from pieces of food and throw away the dry part that is left.
3. (3)
4. The ant has two eyes, each of which is made of many smaller eyes, so they are called compound eyes. The abdomen of the ant contains two stomachs. One stomach holds the food for itself and the second stomach is for food to be shared with other ants. Like all insects, the outside of their body is covered with a hard armor called the exoskeleton. Ants have four distinct growing stages, the egg, larva, pupa and the adult are classified as a special group of wasps.
5. There are over 10,000 known species of ants. They all live in social groups usually called colonies. A colony has one or more queens. The sole duty of a queen is to lay eggs. The worker ants, all of whom are female, cannot produce eggs; they take care of the queen and the eggs she produces. Since the worker ants are sterile, their roles within the colony might be looking after the young, providing food, or defending the nest from unwanted visitors. Ants are clean and tidy insects, so some worker ants are given the job of taking the rubbish from the nest and putting it outside in a special rubbish dump. Each colony of ants has its own smell. In this way, intruders can be recognized immediately. Many ants, such as the red species, have stingers which they use to defend their nest. However, some ants - like black ants and wood ants - have no stingers, but can squirt acid to defend themselves and the colony.
6. 5) Ants are interesting creatures. They have very tiny bodies but live in a complex social community. They are not simply pests, as many people think; in point of fact, they represent a positive example of how planning and teamwork should work in our societies.

5

The pronoun they in Paragraph 5)
refers to..

A ants.

B Pests.

C bodies.

D People.

			9	الرقم
			A	الحل

1. A matryoshka doll refers to a set of dolls of decreasing word size placed one inside the other, The word a diminutive form of the Russian female first name 3 "atryoshka", "Matryona". The first doll set in Russia was carved in 1890 by Vasily Zvyozdochkin from a design by Sergey Malyutin, who was a folk crafts painter. Traditionally the outer layer is a woman, dressed in a saratan, a long traditional Russian dress.
1. A set of matryoshkas consists of a wooden figure which separates, top from bottom, to reveal a smaller figure of the same sort inside, which has, in turn, another figure inside of it, and so on. The number of nested figures is traditionally not less than five, but can be much more, up to several dozen with sufficiently fine craftsmanship. Modern dolls often yield an odd number of figures but this is not an absolute rule; the fine craftsmanship. Modern dolls often yield an odd number of figures but this is not an absolute rule; the original set, for instance, had an even number. The form is approximately cylindrical, with a rounded to be for the head, tapering toward the bottom.
2. It is believed Zvyozdochkin and Malyutin were inspired as no protruding features by a doll from Honshu, the main island of Japan. Sources differ in their descriptions, describing either a round, hollow doll or a nesting doll, portraying a bald old Buddhist monk.
- (4) Zvyozdochkin's creations were first presented at the Exposition Universal in the year 1900 in Paris, where the toy earned a bronze medal. Soon after, matryoshka dolls were being made in several places in Russia and shipped around the world including to Europe, Asia and America
- 5) Matryoshka dolls are often designed to follow a particular theme, and during Perestroika, the leaders of the Soviet Union became a common theme of matryoshkas. In one such example, the largest, outside figure was that of Mikhail Gorbachev, followed by Leonid Brezhnev Yuri Andropov and Konstantin Chernenko almost never appear due to the short length of them of their respective terms), Nikita Khushchev, Joseph Stalin and finally the smallest, Vladimir Lenin.

1
The best title for this passage.....

- A Arts and Crafts
- B Children's Toys
- C Modern Handicrafts
- D Russian Wood figurines

2
The purpose of Paragraph 1) is to.....

- A describe traditional Russian clothes.
- B describe the origin and appearance of the dolls in Russia
- C provide a profile of Zvyozdochkin and Malyutin.
- D provide an explanation of the Russian name Matryona.

3
The word carved in Paragraph 1) is closest in meaning to

- A sourced
- B planned
- C shaped
- D copied

4
According to Part2), what is required for a set to have a large number of nesting dolls?

- A wooden figures
- B expert workmen
- C cylindrical form
- D NO protruding features

4	3	2	1	الرقم
B	C	B	D	الحل

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5

The word this in Paragraph 2) refe.....

A Arts and Crafts

B modern dolls

C several dozen

D absolute rule

6

According to Paragraph 3), the idea of nesting dolls most likely started in.....

A Paris

B japan.

C Russia

D America

7

According to Paragraph 5), some rulers are excluded from being made into dolls because they

A were the smallest

B were NOT Soviet leaders

C were NOT in power for long

D are NOT part of the common theme

	7	6	5	الرقم
	C	B	D	الحل

In the Alberto Cantino map of 1502, the Arab name of Mauritius Island appeared as Dina Arobi. Historians claim that the Arabs communicated this name to the Portuguese, and based on this fact they concluded that the former had already discovered Mauritius by that time.

1

The word the former in the passage refer to.....

A Mauritius Island

B Dina Arobi

C Portuguese

D Arabs

			1	الرقم
			D	الحل

I'm sure you've eaten vinegar on your salad or perhaps used it as a dip for bread, but have you ever wiped it on your underarms or used it to clean a toilet seat? If not, you should give it a try! Vinegar is most commonly used as a food condiment, but it has far more uses than just that. Because it is safe, natural, and eco-friendly, it makes a great alternative for chemical-laden cleaning and sanitizing products. In addition to being able to dissolve mineral deposits on steel, and other surfaces, vinegar is also effective at killing mold and bacteria.

1

At the beginning of the passage, the author assumes that the reader has used vinegar.....

- A to kill bacteria
- B as a food seasoning
- C for personal hygiene
- D for cleaning purposes

			1	الرقم
			B	الحل

1. If small, largely urbanized countries such as Singapore and small island states such as the Maldives are not considered, then Bangladesh has the highest population density in the world. At 1,062 people per km² its population density is about twenty times the global average. It compares with 383 per km² in India and 141 per km² in China - two countries that many people associate with over - population. Over - population cannot be judged by population density alone, but it is a useful starting point when considering the relationship between population and resources in a country.
 2. The lack of natural resources is a major factor in over - population in Bangladesh, as is rapid population growth. The current rate of natural increase in Bangladesh is 1.6 per cent. When Bangladesh became an independent country in 1971 its population was about 75 million, just under half of the total today! The Population Reference Bureau estimates that the population of Bangladesh will rise to 183 million by 2025 and 226 million by 2050. There is already intense competition for the available resources in Bangladesh. How will the country cope in the future when it is already experiencing large-scale poverty and so many other problems?
 - (3) Extremely high population pressure and the deprivation associated with it is areas. The very small amount of cultivable land per person has resulted in a very high level of rural poverty. Most families have to survive on extremely small plots of land. This means that there is not enough work available for many people. About 40 per cent of the population is underemployed, working a limited number of hours a week at low wages. Underemployment is not just confined to the countryside, but affects urban areas too.
 - (4) The regular threat of cyclones and flooding makes this problem much worse. Eighty per cent of the country is situated on the floodplains of the Ganges, Brahmaputra, Meghna and those of several other minor rivers. Much of the country is close to sea level and about 40 per cent is regularly flooded during the monsoon season. Major floods can cause considerable loss of life and destroy vital infrastructure, often setting back development for many years. Where possible, people move to higher land, increasing the already overcrowded nature of such areas. Major floods increase the level of rural - to-urban migration, with the majority of migrants heading for the capital city Dhaka.
- Other urban areas such as Chittagong, Khulna and Rajshahi are also growing in population at very rapid rates. Around 8,000 hectares of cultivable land is lost every year

1
The word slab in the passage is closest in meaning to...

A chunk

B altitude

C speed

D reduction

2
The word unites in the passage is closest in meaning to.....

A relates

B appears

C collapse

D Combines

3
The word unstable in the passage is closest in meaning to...

A firm.

B Safe.

C loose

D larger

	3	2	1	الرقم
	C	D	A	الحل

(1) What comes to mind when you think of emotions? It's probably happiness, sadness, or fear. Emotions such as happiness, anger, sadness, and fear are important emotions, but human emotional experience is vast which means that people are capable of experiencing a wide variety of feelings.

- Let's consider what emotions do and when emotions happen. According to functionalist theories of emotion, emotions help people manage important tasks. Fear, for example, prepares the body to fight or flee; happiness rewards achieving goals and builds attachments to other people, but what causes emotions to happen in the first place? Although it usually feels like something in the world causes an emotion, such as a good hug, emotion theories argue that emotions most likely come from how we think about what is happening in the world, not what is really happening. After all, if things in the world directly caused emotions, everyone would always have the same emotion in response to something. Interest, for example, may motivate a person to learn something new, whereas it may not create a response in someone else.
 - For instance, appraisal theories propose that each emotion is caused by a group of appraisals, which are evaluations and judgments of what events in the world mean for our goals and well-being. We ask ourselves, is this relevant to me? Does it further or obstruct my goals? Can I deal with it or do something about it? Did someone do it on purpose? Different emotions come from different answers to these appraisal questions
 - In general, emotions play important roles in everyday challenges such as responding to threats and building relationships. But emotions also help in other, more intellectual challenges for humans. Compared with other animals, we are born with little knowledge
- but have the potential for enormous intelligence. Emotions such as surprise, interest, and confusion first signal that something out of the ordinary has happened that deserves our attention. They then motivate us to engage with the new things that strain our understanding of the world and how it works. Emotions surely help us to fight or flee, but I believe that more importantly, they aid in learning, exploring, and reflecting.

1

What can we understand from Paragraph (2) about a good hug?

- A** It is likely the result of the two people involved feeling happy.
- B** Scientists argue it works as a reward for achieving a goal.
- C** It may cause different feelings in different people
- D** Theories disagree over its emotional value.

2

How are functionalist theories of emotions different from appraisal theories?

- A** According to functionalist theories, emotions come from how we judge what happens in the world.
- B** According to functionalist theories, emotions help us build relationships or respond to threats.
- C** According to functionalist theories, events in the world cause emotions.
- D** According to functionalist theories, emotional intelligence is more important than logical intelligence.

3

What idea does the word "relationships" in Paragraph (4) repeat?

- A** human emotional experience
- B** evaluations and judgments
- C** attachments to other people
- D** more intellectual challenges

4

Which of the following is the writer's opinion?

- A** People experience many emotions.
- B** People know very little at birth.
- C** Happiness and sadness are emotions.
- D** Emotions help us learn, explore, and reflect.

4	3	2	1	الرقم
D	C	B	C	الحل

(1) What comes to mind when you think of emotions? It's probably happiness, sadness, or fear. Emotions such as happiness, anger, sadness, and fear are important emotions, but human emotional experience is vast which means that people are capable of experiencing a wide variety of feelings.

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5

What can we understand from the passage about emotions?

- A** Emotions may sometimes prevent us from achieving our goals.
- B** Emotions make us want to know more about the world around us.
- C** Scientists have decided there are seven basic types of emotions.
- D** The latest research has changed the way we now think about emotions.

			5	الرقم
			B	الحل

The Saudi Food and Drug Authority (SFDA) was established under the Council of Ministers in 2004, as an independent body corporate that directly reports to The President of Council of Ministers.

The Authority's objective is to regulate, oversee, and control food, drugs, medical devices, as well as to set their mandatory standard specifications, whether they are imported or locally manufactured.

1

What can we understand from the passage about emotions?

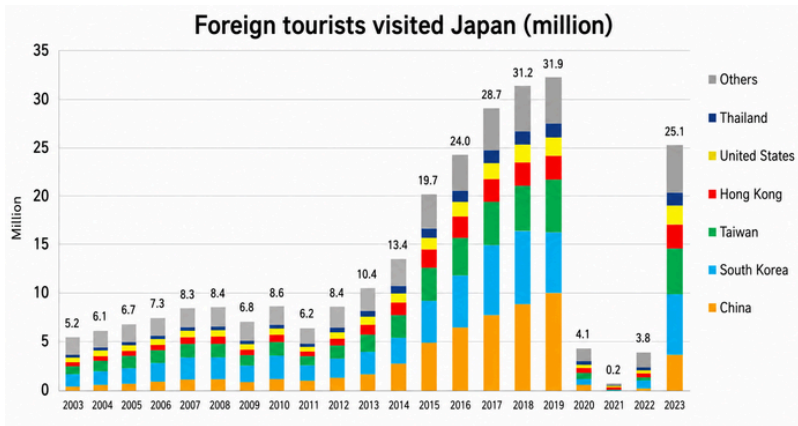
A controlled

B foreign only

C Saudi and foreign

D manufactured only

			1	الرقم
			C	الحل



1

How many Chinese tourists visited Japan in 2017?

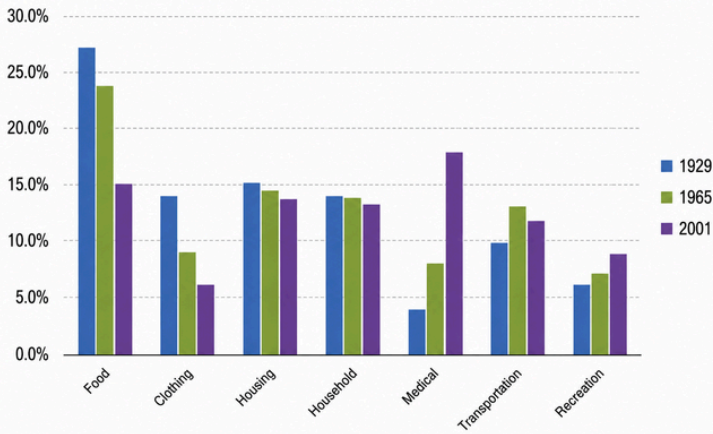
A about 2 million

B about 4 million

C about 7 million

D about 10 million

			1	الرقم
			C	الحل



1

What percentage of spending was on food in 1929?

A 10%

B 15%

C 24%

D 27%

			1	الرقم
			D	الحل

Juliette Low, founder of the Girl Scout movement, had a way of motivating others to help her with her goals. One encounter that required her persistence happened while she was walking along a road and came by a stream.

The only way to get to the other side of the stream was by a very narrow foot bridge, and Juliette was afraid to walk across it alone.

She saw an old man coming down the road and told him to go across the bridge first, while she followed. Although the old man started to protest, her stubborn insistence again worked and he led her across the footbridge.

Once they crossed safely, the old man explained to her that he was blind!

1

The word it in the passage refers to...

A stream

B other side

C road

D way

			1	الرقم
			D	الحل

A mysterious, orange, sticky gel, found on the beaches of Kivalina, a village situated on the Alaskan coast between Kotzebue and Point Hope, was recently the source of much interest. Many people thought that the sticky gel was some strange compound that had spread as a result of a chemical reaction. Others had more farfetched ideas about the substance's origins ranging from aliens to volcanic remains.

1. Scientists at an Alaskan laboratory have been busy analyzing the unknown substance. They have concluded that it is a formation of microscopic eggs. One of the scientists said that there are traces of oil in the eggs, and this is what is causing the strange, orange color.
2. The scientists have discovered that the eggs belong to a small invertebrate - a spineless animal, but they have not been able to identify the exact species.

1

According to Paragraph (1), the strange, orange substance was found

A on the beaches of Kotzebue

B on the beaches of Point Hope

C close to a compound in Alaska

D between Kotzebue and Point Hope

			1	الرقم
			D	الحل

1. The Eastern Caribbean Island of St. Lucia is a part of a chain of volcanic islands known as the Lesser Antilles. St. Lucia is famous for its geothermal activity; heat from the earth's center creates natural hot pools and springs that attract tourists looking to relax in a natural bath!
2. St. Lucia may only be a small island-43 kilometres long and a maximum of 23 kilometres wide (covering 16 square kilometres in total) but its landscape is mixed. There are volcanic beaches, coral diving sites, luxury holiday resorts and fishing villages, and 76 square kilometres of rich rainforest.
3. The island of St. Lucia is known for its pair of pointy mountains, the Pitons, on its west coast. The west coast, where the capital city Castries is found, is met by the Caribbean Sea and is known for its amazing diving! The east coast of the island meets the Atlantic Ocean.
4.) The entire population of St Lucia is approximately 178,000 people which is quite low. Over the centuries, this island has attracted settlers from all over the world, so it has a rich culture. A wide range of religions, music, languages and food can be found here.
- 5) Most people were Amerindians, Caribs and European settlers (mainly from France). During the 19th century, waves of travelers from Europe, the Middle East, and even Japan made their lives in the Caribbean

1
What is one important idea related to St. Lucia's landscape that the writer mentions?

- A It has luxury resorts.
- B It has Japanese settlers.
- C It has a variety of cultures.
- D It has many natural attractions.

3
What does the writer want to show by the example of hot pools and springs?

- A geothermal activity
- B resort attractions
- C a mixed landscape
- D reasons settlers came

2
What is one important idea related to St. Lucia's population that the writer mentions?

- A The population is mostly Amerindians.
- B Its settlers are from the Middle East.
- C It has a small number of people.
- D It is a small island.

4
What is the main topic of the passage?

- A St. Lucia's tourism
- B St. Lucia's history
- C St. Lucia's culture
- D St. Lucia's geography

4	3	2	1	الرقم
D	A	C	D	الحل

Most old people are very pleased that our traditional foods, which disappeared from our society for some time, are now returning.

1

Traditional foods are now.....

A tasting much better

B becoming popular again

C disliked by young people

D seldom served in restaurants

			1	الرقم
			B	الحل

1. If a person wants to be forceful, and really get his message across, then he should be brief; because words are like sunbeams — the more they are condensed, the deeper they burn.

1

The word forceful in the passage is closest in meaning to _____

A sharp

B smart

C mindful

D powerful

			1	الرقم
			D	الحل

Just five years ago, astronomers viewed Mars as an essentially dead world. Recent discoveries made by the Mars Global Surveyor spacecraft, along with studies of Martian meteorites, have completely changed that view.

1

What did scientists discover on Mars?

A Less than five ago.

B Exactly five years ago.

C More than five years ago

D More than ten years ago

			1	الرقم
			B	الحل

Dmitri Mendeleyev has been hailed as the “genius who discovered the periodic table.” However, Mendeleyev wasn’t even the third person to come up with the idea of the periodic table. That honor belongs to the German chemist and physician Lothar Meyer (1830–1895). Meyer wrote a popular book, *The Modern Theory of Chemistry*, published in [year missing]. While preparing the book, he noticed the relationship between the properties of a chemical element and its atomic weight.

1

What does the passage say about Meyer?

A He worked with Mendeleyev.

B He knew about Mendeleyev.

C He wrote a famous textbook.

D He read many books.

			1	الرقم
			C	الحل

1. process is envisioned as carbon atoms combining with diatomic oxygen molecules to produce molecules of carbon dioxide gas.
- 2.2) As mentioned above, the law of conservation of matter expresses that atoms are not created or destroyed in chemical processes. In other words, atoms are conserved in chemical reactions. A reaction is a special process in which certain chemical combinations of atoms transform into new combinations of atoms. In a reaction, the total atom count does not change. Thus, destroying matter by chemical reactions is not possible.

1

The word theory in paragraph 1) is closest in meaning to.....

A idea

B Style

C sense.

D equipment.

2

The word expresses in Paragraph 2) is closest in meaning to

A checks.

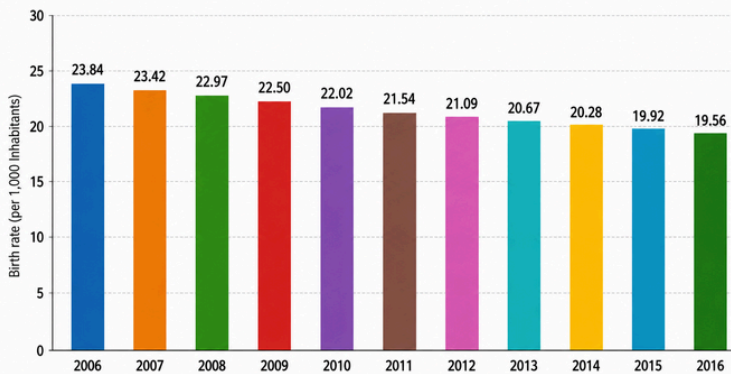
B approves.

C buys.

D explains.

		2	1	الرقم
		D	A	الحل

Saudi Arabia: Birth rate from 2006 to 2016 (per 1,000 Inhabitants)



1

What was the birth rate in Saudi Arabia in 2015?

A 19.56

B 19.92

C 19.99

D 20.28

2

Which year had the highest birth rate in Saudi Arabia?

A 2006

B 2007

C 2015

D 2016

		2	1	الرقم
		A	B	الحل

- 1.(1) Vitamins are organic compounds that the body needs in small amounts to function properly. Humans need 13 different vitamins, which have many roles in the body. For example, Vitamin A helps maintain good vision. Vitamin B helps form red blood cells.
2. Vitamin K is needed for blood to clot when you have a cut or other wound
3. Some vitamins are produced in the body. For example, Vitamin D is made in the skin when it is exposed to sunlight. Vitamins B and K are produced by bacteria that normally live inside the body. Most other vitamins must come from foods. Foods that are good sources of vitamins include whole grains, vegetables, fruits, and milk.
4. Not getting sufficient vitamins can cause health problems. For example, too little vitamin C causes a disease called scurvy. People with scurvy have bleeding gums, nosebleeds, and other symptoms.
5. Minerals are chemical elements that are needed for body processes. Minerals that you need in small amounts include iodine, iron, and zinc. Minerals have many important roles in the body. For example, calcium and phosphorus are needed for strong bones and teeth. Potassium and sodium are needed for muscles and nerves to work normally.
6. Your body cannot produce any of the minerals that it needs. Instead, you must get minerals from the foods you eat. Good sources of minerals include milk, leafy green vegetables, and whole grains. Not getting enough minerals can cause health problems. For example, too little calcium may cause osteoporosis. This is a disease in which bones become soft and break easily. Getting too much of some minerals can also cause health problems. Many people get too much sodium from packaged foods and adding table salt.
7. Too much sodium causes high blood pressure in some people

1

What is one negative effect of taking too much sodium?

A high blood pressure

B weak bones

C bleeding

D headache

2

Why is vitamin K needed in the body?

A to help muscles work normally

B to help cuts stop bleeding

C to make red blood cells

D to improve the health of the skin

3

The word maintain in Paragraph (1) is closest in meaning to

A Share

B Find

C Keep

D Improve

4

The word sufficient in Paragraph (3) is closest in meaning to ...

A important

B extra

C enough

D different

4	3	2	1	الرقم
C	C	B	A	الحل

(1)

The spinal cord is an information highway connecting the nervous system to the brain.

Ascending neural areas send up sensory information, and descending areas send back motor-control information. A look at the neural pathways that control our reflexes, our automatic responses to stimuli, shows the spinal cords work. A simple spinal-reflex path is composed of a single sensory neuron and a single motor neuron, which often communicate through an interneuron.

(2)

One such path makes up the pain reflex. When your fingers touch a hot stove, neural activity excited by the heat travels via sensory neurons to interneurons in your spinal cord. These interneurons respond by activating motor neurons to the muscles in your arm, causing you to jerk your hand away.

(3)

Because the simple pain-reflex pathway runs through the spinal cord and out, you jerk your hand from a candle's flame before your brain receives and responds to the information that causes you to feel pain. Information travels to and from the brain by way of the spinal cord. Were the top of your spinal cord severed, you would not feel such pain. Or pleasure. Your brain would literally be out of touch with your body. Thus, you would lose all sensation and voluntary movement in body regions whose sensory and motor neurons connect with the spinal cord below its point of injury.

1

What helps information travel up and down the spine?

A the brain

B neural paths

C the air we breathe

D automatic responses

			1	الرقم
			B	الحل

1. Psychology is the scientific study of mind and behavior. The word "psychology" comes from the Greek words "psyche, meaning life, and "logos," meaning explanation. Psychology is a popular major for students, a popular topic in the public media, and a part of our everyday lives. Television shows often feature psychologists who provide personal advice to those with personal or family difficulties. Crime dramas such as CSI, Lie to Me, and others feature the work of forensic psychologists who use psychological principles to help solve crimes. And many people have direct knowledge about psychology because they have visited psychologists, for instance, school counselors, family therapists, and religious, marriage, or bereavement counselors.
2. Because we are frequently exposed to the work of psychologists in our everyday lives, we all have an idea about what psychology is and what psychologists do. In many ways, your conceptions are probably correct. Psychologists do work in forensic fields, and they do provide counseling and therapy for people in distress. But there are hundreds of thousands of psychologists in the world, and most of them work in other places, doing work that you are probably now aware of.
3. Most psychologists work in research laboratories, hospitals, and other field settings where they study the behavior of humans and animals. For instance, experts in the Psychology Department at the University of Maryland study such diverse topics as anxiety in children, the interpretation of dreams, the effects of caffeine on thinking, how birds recognize each other, how people from different cultures react differently in negotiation. Psychologists also work in schools and businesses, and they use a variety of methods, including observation, questionnaires, interviews, and laboratory studies, to help them understand behavior.

1

What do psychologists do to help people who are nappy in their lives?

- A They advise them to stop drinking coffee
- B They provide them with treatment services
- C They take them to special hospitals for help.
- D They provide them with advice about their food.

3

What does the passage say about the work of most psychologists?

- A It is field research
- B It is forensic science.
- C It is TV entertainment,
- D It is personal counseling.

2

Why does the writer use the word "Because in Paragraph 2)?

- A To show other examples of jobs psychologists do.
- B To explain the result of people talking and dealing with psychologists.
- C To add more information to the definition of psychology and the work of psychologists.
- D To show that psychologists are very good at finding criminals and solving crimes.

4

Which word can we use to replace the word "But" in paragraph 2)?

- A In addition
- B Therefore
- C Finally
- D However

4	3	2	1	الرقم
D	A	B	B	الحل

1. Psychology is the scientific study of mind and behavior. The word "psychology" comes from the Greek words "psyche," meaning life, and "logos," meaning explanation. Psychology is a popular major for students, a popular topic in the public media, and a part of our everyday lives. Television shows often feature psychologists who provide personal advice to those with personal or family difficulties. Crime dramas such as CSI, Lie to Me, and others feature the work of forensic psychologists who use psychological principles to help solve crimes. And many people have direct knowledge about psychology because they have visited psychologists, for instance, school counselors, family therapists, and religious, marriage, or bereavement counselors.
2. Because we are frequently exposed to the work of psychologists in our everyday lives, we all have an idea about what psychology is and what psychologists do. In many ways, your conceptions are probably correct. Psychologists do work in forensic fields, and they do provide counseling and therapy for people in distress. But there are hundreds of thousands of psychologists in the world, and most of them work in other places, doing work that you are probably now aware of.
3. Most psychologists work in research laboratories, hospitals, and other field settings where they study the behavior of humans and animals. For instance, experts in the Psychology Department at the University of Maryland study such diverse topics as anxiety in children, the interpretation of dreams, the effects of caffeine on thinking, how birds recognize each other, how people from different cultures react differently in negotiation. Psychologists also work in schools and businesses, and they use a variety of methods, including observation, questionnaires, interviews, and laboratory studies, to help them understand behavior.

5

What does the writer think about our knowledge of psychology?

- A It is complete.
- B It is INCORRECT.
- C It is from university.
- D It is from experience.

			5	الرقم
			D	الحل

1. We generally use the word "stress" when we feel that everything seems to have become too much. We are overloaded and wonder whether we really can cope with the demands placed upon us. Anything that poses a challenge or a threat to our well-being is a stress at all, many say our lives would be boring and would probably feel pointless. However, when the stresses affect both our mental and physical health they are bad.
2. The way we respond to a challenge may also be a type of stress. Part of our response to a challenge is physiological and affects our physical state. When faced with a challenge or a threat, our body activates resources to protect us; to either get away as fast as we can. Or fight. This is known as our 'fight-or-flight' response.
3. If you are upstairs at home and an earthquake starts, the faster you can get yourself, and anyone else who might be at home, out the more likely you are all to survive. If you need to save somebody's life during that earthquake by lifting a heavy weight that has fallen on them. You will need parts of your body to be activated to give you more strength.
4. To do this, our body produces larger quantities of the chemicals cortisol, adrenaline and noradrenaline, which trigger it to have a higher heart rate. Heightened muscle preparedness, sweating, and alertness. All these factors help us protect ourselves in a dangerous or challenging situation.
5. Non-essential body functions slow down, such as our digestive and immune systems when we are in a 'fight-or-flight' situation. All resources can then be concentrated or rapid breathing, blood flow, alertness and muscle use.
6. Most of us have varying interpretations of what stress is about and what matters, sort of us focus on what happens to us, such as breaking a bone or getting a promotion. While others think more about the event itself. In my opinion. What really matters are our thoughts about the situations in which we find ourselves.

1

The word overloaded in paragraph (1), is closest in meaning to.....

A Feeling NOT listened to

B Feeling NOT supported

C Feeling under pressure

D Feeling overweight

2

What does the expression 'fight or flight response' used in paragraph (2) mean?

A Staying in a dangerous situation or facing it

B Getting away from a dangerous situation very quickly

C The ways a dangerous situation changes with stress

D The ways a person's body reacts to a dangerous situation

3

According to Paragraph (3), what is the best advice in the event of an earthquake?

A Try to save someone else's life as well as your own

B Make sure that no heavy weight have fallen on top of you.

C Try to get out of the building as quickly as possible.

D Stay inside and wait until the earthquake has finished

4

The word it in paragraph (4) refers to

A body

B cortisol

C adrenaline

D noradrenaline

4	3	2	1	الرقم
A	A	D	C	الحل

1. We generally use the word "stress" when we feel that everything seems to have become too much. We are overloaded and wonder whether we really can cope with the demands placed upon us. Anything that poses a challenge or a threat to our well-being is a stress at all, many say our lives would be boring and would probably feel pointless. However, when the stresses affect both our mental and physical health they are bad.
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5

According to paragraph (5), what is TRUE about a 'fight or flight' situation?

- A** All body functions are considered essential.
- B** All body functions are considered NON essential.
- C** The digestive and immune systems are considered NON essential.
- D** The digestive and immune systems are considered essential

			5	الرقم
			C	الحل

1. Inventory, or the amount of material a company holds. Can affect customer satisfaction. Here, managers must maintain the delicate balance between carrying too little inventory and carrying too much. With too little stock. The firm risks not having products which customers want to buy. To remedy this, the firm may need costly emergency shipments or production. Carrying too much inventory results in higher-than-necessary inventory-carrying costs and out-of-date stock. Thus, in managing inventory, firms must balance the costs of carrying larger inventories against resulting sales and profits.
2. Many companies have greatly reduced their inventories and related costs though just-in-time logistics systems with such systems, producers and retailers carry only small inventories of points or merchandise, often only enough for a few days of operations.
3. New stock arrives exactly when needed, rather than being stored in inventory until being used. Just-in-time systems acquire accurate forecasting along with fast, frequent and flexible delivery so that new supplies will be available when needed. However, these systems result in substantial savings in inventory-carrying and handling Costs.
- (3) Marketers are always looking for new ways to make inventory management more efficient in the not-too- distant future. Handling inventory might even become fully automated. For example, smart tag technology, by which small transmitter clips are embedded more placed on products and packaging on everything from flowers and razors to tires. Smart products could make the entire supply chain - which accounts for nearly 75 percent of a product's cost intelligent and automated.

1

Which word can we use to replace "Thus" in paragraph (1)?

A Particularly

B However

C Therefore

D Though

2

What does paragraph (1) say about inventories?

A They help firms reduce costs and increase profits.

B They help customers find the right items faster.

C They make customers and managers happy.

D They always result in more profits.

3

Why does the writer use the word "However" in Paragraph (2)?

A To show that just-in-time systems are actually useful.

B To explain the process of just-in-time systems,

C To give an example of just-in-time systems.

D To list the benefits of just-in-time systems.

4

What do firms do to avoid keeping higher than necessary inventories?

A They balance the costs against the sales and profits.

B They reduce their costs through logistics systems.

C They call customers to determine their needs.

D They make their inventories automated.

4	3	2	1	الرقم
A	A	A	C	الحل

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5

How does the writer feel about the future of inventories?

A He believes future inventories will cost more.

B He believes future inventories will require more forecasting

C He believes future inventories will make customers happier.

D He believes future inventories will soon be smarter and fully automate

			5	الرقم
			D	الحل

1. Cancer is a serious disease, but when a tumor is localized, it can be removed by surgery. Skin cancer, the most common form of the disease, can usually be treated this way. Melanomas, the most serious form of skin cancer, can be removed surgically, but only if spotted very early.
2. Other forms of treatment make use of the fact that cancer cells grow rapidly and, therefore, need to copy their DNA more quickly than do most normal cells. This makes them especially vulnerable to damage from radiation. As a result, many tumors can be effectively treated with carefully targeted beams of radiation.
3. Medical researchers have worked for years to develop chemical compounds that would kill cancer cells, or at least slow their growth. The use of such compounds against cancer is known as chemotherapy. Great advances in chemotherapy have taken place in recent years and have even made it possible to cure some forms of cancer. However, because most chemotherapy compounds target rapidly dividing cells, they also interfere with cell division in normal, healthy cells. This produces serious side effects in many patients, and it is one of the reasons why scientists are so interested in gaining a better understanding of cell cycle proteins in cancer. The goal of many researchers is to find highly specific ways in which cancer cells can be targeted for destruction while leaving healthy cells unaffected.
4. Understanding and combating cancer remains a major scientific challenge, but scientists at least know where to start. Cancer is a disease of the cell cycle, and conquering cancer will require a much deeper understanding of the processes that control cell division.

1

What does paragraph (1) say about skin cancer?

- A** It's a less frequent than other forms of cancer.
- B** It can normally be removed by surgery.
- C** People can get it from sunbathing.
- D** Melanomas are easy to notice.

2

How can scientists avoid destroying healthy cells?

- A** by treating cancer very early.
- B** by copying the DNA in cancer cells.
- C** by using chemotherapy or beams of radiation.
- D** by better understanding cell cycle proteins in cancer.

3

Which word or words can we use to replace the word "therefore" in paragraph (2)?

- A** instead
- B** besides
- C** in addition
- D** as a result

4

Why does the writer use the word "However" in paragraph (3)?

- A** to say that chemotherapy has its dangers
- B** to give an example of how chemotherapy works
- C** to repeat the previous sentence with fewer words
- D** to say that the previous sentence is actually incorrect.

4	3	2	1	الرقم
A	D	D	B	الحل

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4. Understanding and combating cancer remains a major scientific challenge, but scientists at least know where to start. Cancer is a disease of the cell cycle, and conquering cancer will require a much deeper understanding of the processes that control cell division.

5

How does the writer feel about our understanding of cancer?

A He feels hopeful because scientists have made at least some progress.

B He feels excited because scientists are close to curing its most common forms.

C He feels angry because some treatments make people feel ill.

D He feels disappointed because few of the treatments work.

			5	الرقم
			A	الحل

1. The origins and development of laws and legal systems are for the most part based on the actions of government and religion. In many societies, governments and religion are largely intertwined and their laws reflect this. Because of differences in beliefs and values, laws vary widely from one society to another. However, historically only two major types of legal systems developed, civil law systems and common law. The term civil law as used to describe a legal system refers to a system based primarily on written constitutions and written laws or codes. In such legal systems, a ruler of legislative body creates an extensive set of rules or regulations. to govern the role of courts in such systems is limited. Common law systems, on the other hand, are based on precedent or case law.
2. Civil law jurisdictions, the more common in the world today, date back thousands of years. One of the most famous examples was the Babylonian Empire, a society ruled by a law known as the code of Hammurabi. The code was named after the ruler of the time and dates back to approximately 1760 BCE.
3. Common law systems are those based on the concept of precedent. In this type of system, laws originate from decisions of courts rather than legislative bodies. Originally decisions were based on tradition and custom but eventually decisions were based on precedent. Precedent requires courts to follow decisions of earlier courts. Common law originated with Medieval England and is found in many countries once occupied by Great Britain.

1
What is one important idea that the writer mentioned?

A that Hammurabi created common law

B that civil law is more common than common law

C that decisions were based on traditions

D that the role of court is limited in every

2
What is one important idea that the writer mentions?

A that laws are mostly the same across societies

B that Hammurabi wrote the first legal code

C that in both legal systems, decisions are based on precedents

D that civil law is based on written constitutions and codes

		2	1	الرقم
		D	B	الحل

- 1.(1) Although the global economy continued to grow robustly until 2007, economic performance was not equal: growth in the advanced economies slowed and then stopped in 2009, whereas emerging and developing economies continued to grow.
2. Looking ahead, the International Monetary Fund (IMF), an international bank with 186 member nations, expected growth to continue until 2020 in both advanced and emerging developing economies.
- 3.(2) Although the U.S. economy had been growing steadily since 2000 and recorded the longest peacetime expansion in the nation's history, the worldwide recession which began in December 2007 slowed the rate of growth. The IMF estimated that the U.S. economy grew by less than half of 1 percent in 2008 and, because of subprime mortgage lending and other global financial problems, declined 2.5 percent in 2009.
4. International experts recorded global economic growth of 3.9 percent in 2010 and 4.3 percent in 2011, despite the high oil prices.
- 5.(3) Canada and Western Europe: America's leading export partner, Canada, showed a growth rate of 2.6 percent in 2010 and 3.6 percent in 2011. The euro area which declined by 3.9 percent in 2009, grew by 1.0 percent in 2010, and by 1.6 percent in 2011.
6. The United Kingdom and smaller European countries such as Austria, the Netherlands, Sweden, and Switzerland, experienced a recession.
- 7.(4) Mexico and Latin America: America's second largest export customer, Mexico, suffered its sharpest recession ever in 1995, and experienced another major setback in 2009. However, its growth rate in 2010 and 2011 was 4.0 percent and 4.7 percent, respectively. Brazil escaped the recent global economic crisis with only minor setbacks: its growth in 2008 was more than 5 percent, and in 2009 it declined only 0.4 percent. In general, the Latin American and the Caribbean economies are recovering at a robust pace.
8. Japan: Japan's economy is regaining momentum. Stronger consumer demand and business investment make Japan less reliant on exports for growth. The IMF puts the growth for Japan at 1.7 percent in 2010 and 2.2 percent in 2011.
9. Other Asian Countries: The economic growth in Asia remained strong in 2008 and 2009 despite the global recession. Growth was led by China, where its economy expanded by 8.7 percent in 2009, and by at 10 percent and 9.7 percent in 2010 and 2011, respectively. Growth in India slowed modestly to 5.6 percent in 2009. Growth in Indonesia, Malaysia, the Philippines, Thailand, and Vietnam was as expected at 4.7 percent and 5.3 percent in 2010 and 2011, respectively. In short, the key emerging economies in Asia are leading the global recovery. China's emergence as a global economic power has been among the most dramatic economic developments of recent decades. From 1980 to 2004, China's economy averaged a real GDP growth rate of 9.5 percent and became the world's sixth-largest economy. China's total share in world trade expanded from 1 percent in 1980 to almost 6 percent in 2003. By 2004, China had become the third largest trading nation in dollar terms, behind the United States and Germany and just ahead of Japan.
- 12.(7) Emerging Europe: The year 2007 marked the sixth consecutive year during which emerging Europe grew much faster than Western Europe, but growth in many countries was uneven. The global economic crisis that plagued this region finally came to an end in 2009, and most countries in the region saw positive growth in 2010 and 2011.
13. 2011
- 14.(8) Commonwealth of Independent States. The growth in this region turned out to be the predicted 3.8 percent in 2010 and 4.0 percent in 2011. Strong growth is expected to continue in Azerbaijan and Armenia, whereas growth is projected to remain stable in Moldova, Tajikistan, and Uzbekistan. After World War II, trade between the United States and the communist nations of Central and Eastern Europe was minimal. The United States maintained high tariff barriers on imports from most of these countries and also restricted their exports. However, since the disintegration of the Soviet Union and the collapse of communism, trade between the United States and Central and Eastern Europe has expanded substantially. The countries that made the transition from communist to market economies quickly have recorded positive growth for several years. Among the nations that have enjoyed several years of positive economic growth are the member countries of the Central European Free Trade Association: Hungary, the Czech Republic, Poland, Slovenia and Slovakia.

1

Who is America's leading export partner?

- A USA
- B Canada
- C Mexico
- D The United Kingdom

2

What was the percentage of the Euro area economy decline in 2009?

- A 1 percent
- B 1.6 percent
- C 3.9 percent
- D 10 percent

3

When did the worldwide recession begin?

- A 2007
- B 2008
- C 2009
- D 2010

4

What was China's total world trade share in 2003?

- A 1 percent
- B 4.5 percent
- C 6 percent
- D 9.5 percent

4	3	2	1	الرقم
C	A	C	B	الحد

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- 15.

5

Which country is a member of the Central European Free Trade Association?

A Armenia

B Polana

C Moldova

D Turkey

			5	الرقم
			B	الحل

- (1) A soda company sponsoring nutrition research. An oil company helping fund a climate-related research meeting. Does the public care who's paying for science?
- (2) In a word, yes. When industry funds science, credibility suffers. And this does not bode well for the types of public-private research partnerships that appear to be becoming more common as government funding for research and development reduces.
- (3) The recurring topic of conflict of interest has made headlines in recent weeks. The National Academies of Science, Engineering, and Medicine has revised its conflict-of-interest guidelines following questions about whether members of a recent expert group on GMO's had industry connections or other financial conflicts were not disclosed in the panel's final report.
- (4) This indicates how hard it may be for the public to see research as useful when produced with an industry partner, even when that company is just one of several collaborators. What people think of funding sources.
- (5) When a research team included an industry partner, the public were generally less likely to think the scientists would consider a full range of evidence and listen to different voices. An industry partner also reduced how much participants believed any resulting data would provide meaningful guidance for making decisions.
- (6) You may think that including a diverse array of partners in a research collaboration might remove the negative perceptions that come with industry involvement. But, while including scientists from a non-industry organization (particularly a nongovernmental organization) made some difference, the effect was small. Adding a government partner provided no real additional benefit.
- (7) Participants who were asked to describe what they thought about the research partnership in their own words said they were skeptical whether an industry partner could ever be trusted to release information that might hurt its profits.
- (8) Stories of Pharmaceutical companies conducting less than rigorous clinical trials for the benefit of their marketing departments, or the tobacco industry steadfastly denying the connection between smoking and cancer in the face of mounting evidence, help explain public concern about industry-funded science.

1

How are the ideas that "not all evidence is considered" and "not all findings are related"?

- A Both are part of the tobacco industry's research.
- B "Not all evidence is considered" is an example of "not all findings are released"
- C Both are examples of public opinion about the type of research.
- D One represents NGO research and the other company-funded research.

2

Which of the following is an opinion?

- A They were Skeptical whether an industry partner could ever be trusted to release information that might hurt its profits.
- B The National Academies of Science, Engineering and Medicine has revised its conflict-of-interest guidelines.
- C An industry partner also reduced how much participants believed any resulting data would provide meaningful guidance for making decisions.
- D Including scientists from a non-industry organization made some difference, but the effect was small.

3

How is the public's view about funding science different from the industry's view?

- A The public think that the industry should use their money to do more researches.
- B The public think that public-private research partnerships work well.
- C The public think that government research is less efficient.
- D The public think that the industry mainly cares about money.

4

What can we understand from the text about company-funded research?

- A It is less reliable than government-funded research.
- B The government often chooses the area of research.
- C Companies often receive money from governments
- D It usually involves more than one company.

4	3	2	1	الرقم
A	D	A	C	الحل

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5

What can we understand from the passage about government funding for research?

A Public health research receives most of the money.

B The public think it's a waste of money.

C There used to be more money available.

D Government funding is a slow process.

			5	الرقم
			B	الحل

(1) The Official Opening of The Suez Canal was on November 17, 1869. Representatives of almost every European royal family attended the inauguration celebration. Ships from France, Russia, Austria, Italy, Britain and the United States sailed through the canal. The total cost of the project was an estimated \$105 million, which at the time was a lot of money. This was more than twice the original estimate. But it was a tiny sum compared with the cost of a similar project today.

1

by modern standards building the canal was

- A Extremely inefficient
- B Very time- consuming
- C Extremely inexpensive
- D Very important politically.

2

The canal was most important to the ...

- A Europeans
- B Egyptians
- C Americans
- D Arab world

3

What are two important factors in A project?

- A quality and structure
- B administration and procurement.
- C accounting and le
- D Controls and pro.....

4

Which activities will..... department?

- A property dip.....
- B salary and benefits
- C taxes and yea.....
- D legal service

4	3	2	1	الرقم
B	B	A	C	الحل

1. A market-orientated company is one that organizes its activities, products and services around the wants and needs of its customers. By contrast, a product-oriented firm has its primary focus on its product and on the skills, knowledge and systems that support that product.
2. Until the late 20th century many firms were product-orientated and failed to understand the changing needs of their customers in an increasingly competitive marketplace. A major swing towards market-orientation has led to intensified market research and product ranges carefully designed to fit customer preferences.
3. However, product-orientation can still be important in keeping an emphasis on quality, safety and investment in new technology.
4. Successful companies recognize the importance of both approaches. Products must start with the needs and wants of customers. But delivery of a profitable product depends on efficiency and quality in production.
5. In the real world, market and product orientation are closely intertwined so that companies like Gillette, Coca-Cola and Travis Perkins, will:
- carry out market research into what consumers want
 - organize product research in line with the results of market research
 - constantly engage in qualitative market research to find out what focus groups of customers think of new ideas
 - test market new products in smaller market areas before launching them onto a wider market
 - evaluate ongoing customer perception of goods and services, in order to make improvements to technologies and product offerings
- Market orientation gets the right product: product orientation gets the product right.

1

What important idea connected to product-oriented firms does the writer mention in Paragraph (1)?

- A** Their customers want and need their products.
- B** They help customers based on what they want and need
- C** They pay more attention to what they make and services that help it.
- D** They need skills, knowledge, and systems in order to make products.

2

What does paragraph 6 say about livestock farming affecting poor?

- A** It provides the poor with the needed nutrition.
- B** It is too expensive for the poor to buy.
- C** It increases the price of grains so the poor can no longer afford it.
- D** The poor can afford buying the red meat.

		2	1	الرقم
		C	C	الحل

1. Many people think globalization is a new phenomenon. In fact, this process has been happening for thousands of years. For example, some very old Chinese artifacts have been found in North and South America, and antique Arabian money has been found as far north as Norway.
2. What is even more remarkable is how quickly plants from the New World became staples in the Old World. Hungarian cooking. For example, is famous for use of red peppers, and the Irish and famous for eating potatoes. Indian food is an even better example. People in many countries now often eat Indian food. They seem to enjoy the idea that is the "traditional" but what is really in it? In many "traditional" Indian dishes, you will probably find potatoes, tomatoes, squash, corn, and sweet peppers.
3. Your food may be cooked in peanut oil and have peanuts and cashew nuts sprinkled on top. For dessert you may have guavas or papaya.
4. We think of all this food as "traditional" Indian food. Yet sailors brought all these plants to India from America on ships after 1500. We can also assume that they took a long time to spread and become popular in their new homes. So really, they are not that traditional - they are relatively new. And the same is true for traditional food in many places. The chili pepper for instance is a main part of the diet from South Africa to Hungary, from Mexico to Spain, to Yemen to India to China, but it originated in the Americas. So Globalization is really nothing new. We can learn a lot about globalization today by studying patterns of globalization in the past. It is a process that has been happening since man began to trade

1

According to paragraph (1). Globalization is often assumed to be a recent development. In fact, globalization

- A Originated with the Chinese
- B Went as far north as Norway
- C Has been going on for a long time
- D Is evidenced in North and South America

2

In paragraph (1). Discovered artifacts and antiques came originally from ...

- A China and Arabia
- B Norway and China
- C North and South America
- D Arabia and North America

3

The word antiques in paragraph (1) is closest in meaning to

- A Traditional
- B Very distant
- C Metallic
- D Very Old

4

According to paragraph (3), where did most of the plants mentioned in the passage originate?

- A In North America
- B In Asia and the Americas
- C In North and South America
- D In North America And Europe

4	3	2	1	الرقم
C	D	A	C	الحل

1. Many people think globalization is a new phenomenon. In fact, this process has been happening for thousands of years. For example, some very old Chinese artifacts have been found in North and South America, and antique Arabian money has been found as far north as Norway.
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1
How does the author use a discussion of plants?

- A To show how they can add variety to our diet
- B To show how quickly new ones spread
- C As an example of globalization
- D To describe Indian food

2
If the passage continued it would probably show why globalization.....

- A Was uncommon in the Old World
- B Was irrelevant to some societies
- C Is important today
- D Is to be discarded

		2	1	الرقم
		C	C	الحل

A mountain is a landform that extends above the surrounding area. A mountain is generally higher and steeper than a hill.

5

What does the passage say about hills?

A They are lower than mountains.

B They are as high as mountains.

C They are higher than mountains.

D They are steeper than mountains.

			5	الرقم
			A	الحل

1. The damage you described in your letter dated 7 July has now been inspected
2. The faults in the wiring appear to have been caused by dripping water from the floor above. The electrical contractor, who installed the wiring in February, tells me that the wall was dry at the time he replaced the old wires. However, we will arrange for repairs to be made and seal off that section.
3. Durafloor is one of the most hardwearing materials of its kind on the market and we were surprised to hear that it had worn away within six months, so we made a closer inspection. We noticed that the floor had been cut into and this seems to have been volcano produced a huge ash cloud that spread to the east. It caused many airports in Europe to close because it was too dangerous for plans to fly through the ash.

1

Which year was called "the year without a summer"?

A 1815

B 1816

C 1825

D 1883

2

Which Island was formed by volcanoes?

A Hawaii

B Ireland

C Iceland

D Indonesia

3

What is lava?

A Ash

B Gas

C magma

D dust

	3	2	1	الرقم
	C	C	B	الحل

The Ashes is a Test cricket series played between England and Australia. It is one of the most celebrated rivalries in international cricket and dates back to 1882.

5

The word celebrated in the passage is closest in meaning to -----

A enjoyed

B preserved

C performed

D recommended

			5	الرقم
			A	الحل

The King Faisal International Prize is awarded annually to a person or group of persons who have done distinguished work in different fields. Nominations for recipients of the Prize are accepted from scientific and academic institutions worldwide, irrespective of race, nationality, or creed.

5

Where do the King Faisal Prize nominations come from?

A the sons of King Faisal

B governmental agencies

C philanthropic organizations

D universities and scientific institutions

			5	الرقم
			D	الحل

1. The oceans make up 70 percent of the planet and contain 97 percent of all the water on Earth. It also makes up the vast majority of water stores, the majority of the planet's moisture, terrestrial energy, and heat from the sun. This energy is transferred between the equator and the two poles by larger surface currents, by winds and deep ocean currents driven by differences in ocean density. It also provides the moisture and energy for storm systems and ultimately global climates.
2. As terrestrial creatures, humans think of the importance of the planet's land surfaces, yet Earth is a planet consisting of 70 percent water. From space, the dominance of water is obvious because most of it is stored in Earth's oceans.
3. Earth would not be the same planet without its oceans. The oceans, along with the atmosphere, keep Earth's surface temperatures fairly constant worldwide. Some places on Earth reach as cold as -20 degrees Celsius, whereas other places reach as hot as 55 degrees Celsius. Yet on other planets like Mercury, temperatures range from -180 degrees Celsius to 430 degrees Celsius.

1

What is the writer's main purpose?

A to recommend

B to complain

C to advise

D to inform

2

What is one important idea that the writer mentions?

A Both poles are covered in ice.

B Earth is cooler than Mercury.

C Oceans are extremely important

D Water is essential to living things.

		2	1	الرقم
		C	D	الحل

- (1) The idea that "everyone needs 8 hours of sleep" is untrue. Newborns spend nearly two-thirds of their day asleep, most adults no more than one-third. Age-related differences in average time spent sleeping are rivaled by differences in the normal amount of sleep among individuals at any age. Some people thrive with fewer than 6 hours of sleep per night; others regularly sleep 9 hours or more. Sleep patterns may be genetically influenced. When two researchers, Wilse Webb and Scott Campbell, checked the pattern and duration of sleep among fraternal and identical twins, only the identical twins were strikingly similar.
- Whatever their normal need for sleep, some 10 to 15 percent of adults complain of insomnia - persistent problems in falling or staying asleep. True insomnia is not the occasional inability to sleep that we experience when anxious or excited. For a stressed organism, alertness is natural and adaptive. Moreover, from middle age on, sleep is seldom uninterrupted. Occasional awakenings become the norm, not something to fret over or treat with medication.
- Sometimes people fret unnecessarily about their sleep. Scientists have learned to doubt people's fretful sleep reports. In laboratory studies, insomnia complainers do get less sleep than others, but they typically overestimate, by about double, how long it took them to fall asleep, and they underestimate by nearly half how long they actually slept.
- Even if we've been awake only an hour or two, we may think we've had little sleep because it's the waking part we remember. When researchers awaken people repeatedly during the night, some recall having slept soundly.
- (4) The most common quick fixes for true insomnia - sleeping pills - can aggravate the problem. Both reduce REM sleep and can leave a person with next-day blahs. With continued use, one needs bigger doses to get an effect, and when the drug is discontinued, the insomnia may worsen. Scientists are searching for natural chemicals that are abundant during sleep and might be synthesized as a sleep aid without side effects. In the meantime, sleep experts offer other natural alternatives:
- Relax before bedtime, using dimmer light.
- Avoid caffeine (this includes chocolate) after late afternoon and avoid rich foods before bedtime. A glass of milk may help. (Milk provides raw materials for the manufacture of serotonin, a neurotransmitter that facilitates sleep.)
- Sleep on a regular schedule (rise at the same time even after a restless night) and avoid naps. A regular sleep schedule boosts daytime alertness, too, as shown in a recent experiment in which University of Arizona students slept 7.5 hours a night on either a varying or consistent schedule.
- Exercise regularly but not in the late evening. (Late afternoon is best.)
- Reassure yourself that the temporary loss of sleep causes no great harm, certainly nothing worth losing sleep over.
- If nothing else works, aim for less sleep; go to bed later or get up earlier.
- More rare but also more severe than insomnia are the sleep disorders narcolepsy and sleep apnea. People with narcolepsy (from narco, "numbness," and lepsy, "seizure") suffer periodic, overwhelming sleepiness. This usually lasts less than 5 minutes but sometimes occurs at the most inopportune times, perhaps just after taking a terrific swing at a softball or when laughing loudly or shouting angrily. In severe cases, the person may collapse directly into a brief period of REM sleep, with its accompanying loss of muscular tension. Those who suffer from narcolepsy - 1 in 2000 people, estimates the Stanford University Center for Narcolepsy - must live with extra caution.
- The National Heart, Lung, and Blood Institute reports that 1 in 25 people (mostly overweight men) suffer from sleep apnea - a treatable disorder that was unknown before modern sleep research. They intermittently stop breathing during sleep. (Apnea means "stopping respiration." After an effortless minute or so, decreased blood oxygen arouses the sleeper to awaken and snort in air for a few seconds. The process can repeat more than 400 times a night, depriving the person of slow-wave sleep. Apart from complaints of sleepiness and irritability during the day - and their friends' complaints about their loud "snoring" - apnea sufferers are often unaware of their disorder.

1
What percentage of adults have problems falling asleep?

A 2-3 percent

B 6-8 percent

C 10-15 percent

D 20-25 percent

2
How many people suffer from narcolepsy?

A 1 in 5 people

B 1 in 25 people

C 1 in 400 people

D 1 in 2000 people

3
Who did a study on sleep apnea?

A The University of Arizona

B The New York Center for Sleep Apnea

C The National Heart, Lung, and Blood Institute

D The Stanford University Center for Narcolepsy

4
What did Wilse Webb and Scott Campbell study?

A different types of men

B different types of twins

C different types of adults

D different types of parents

4	3	2	1	الرقم
B	C	D	C	الحل

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5

Who usually experiences sleep apnea?

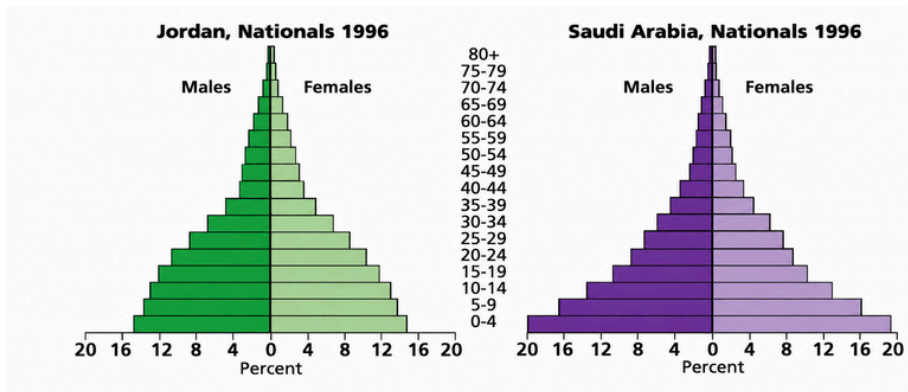
A fat men

B thin women

C normal adults

D identical twins

			5	الرقم
			A	الحل



1

In 1996, 17% of male Saudis were between which ages?

A 0-4 years old

B 5-9 years old

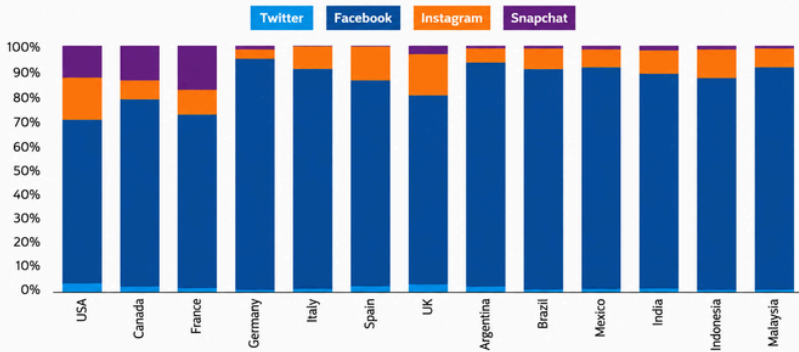
C 10-14 years old

D 15-19 years old

			1	الرقم
			B	الحل

Social Networks' Share of Time

Share of Combined Minutes for 4 Major Social Networking Apps



1

What percentage of social media minutes did Indians spend using Snapchat?

A 100%

B 25%

C 2%

D 0%

			1	الرقم
			C	الحل

How many fast food meals do you eat per week?

	Children 5-12	Young Adults 13-17	Adults 18-49	Elderly 50+	Total
0	8	2	4	9	23
1-3	24	4	26	31	85
4-6	10	28	14	6	58
7+	8	16	6	4	34

Which fast food restaurants have you visited in the last year?

	Children 5-12	Young Adults 13-17	Adults 18-49	Elderly 50+	Total
McDonalds	44	42	41	42	169
Burger King	36	41	32	28	137
Herfy	11	43	32	3	89
Hardees	9	46	25	10	90
KFC	24	36	43	42	145

1

Which fast food restaurant is most popular for adults?

A Burger King

B McDonalds

C Hardees

D KFC

2

Which fast food restaurant is most popular?

A McDonalds

B Hardees

C Burger King

D KFC

		2	1	الرقم
		A	D	الحل

1. The University administration asked questions to find out about their services at the Student Union. The professors were all told to ask their students to fill out the questionnaires and return them by the end of the semester.

1

Who should respond to the questionnaires?

A NEITHER the students NOR the professors.

B the students and the professors.

C the professors.

D the students.

			1	الرقم
			D	الحل

1. Alex: Hi Dave, do you want to come over for dinner tonight?

2. Dave: Sorry Alex, I can't talk right now because 'm

1

What is Dave's reply?

A Working.

B Looking.

C Read.

D Fast

			1	الرقم
			A	الحل

Unit 1	
Origin of Hispanic Culture: Europe.....1	
Unit 2	
Origin of Hispanic Culture: America..... 20	
Unit 3	
Religion in the Hispanic World.....35	
Unit 4	
Revolutionary Movements of the century.....60	

1

which unit would most likely discuss prayer in Hispanic Culture?

A Unit 1

B Unit 2

C Unit 3

D Unit 4

2

which unit would most likely discuss violent changes in society in Hispanic countries?

A Unit 1

B Unit 2

C Unit 3

D Unit 4

		2	1	الرقم
		D	C	الحل

Partly, 512 penguins have washed up dead on the shores in southern Brazil. Marine biologists and veterinarians are working together to determine the cause of the mysterious deaths. But so far, details remain hazy. The penguins don't appear physically injured or malnourished, and the researchers have no traces of oil on their bodies. The lack of clues, and with the sheer number of the penguins, have left researchers puzzled.

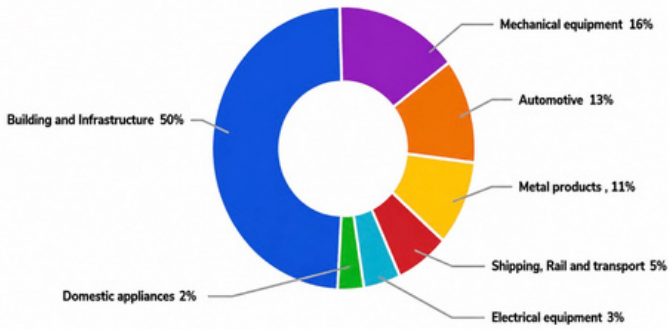
1

What did the scientist find out about the dead penguins?

- A** They were killed by oil.
- B** They died on the beaches.
- C** They DON'T know what killed them.
- D** They were NOT killed while migrating.

			1	الرقم
			C	الحل

Industries that use the most steel



1

Which city has the same level of traffic congestion as Lima?

A Bogota

B Moscow

C New York

D New Delhi

			1	الرقم
			D	الحل

1. Message to Tom
2. "Steve: Can I come and see you next weekend?"
3. Tom: on Friday I am busy, but Saturday will be OK."

1

What did Steve ask in his message to Tom?

A Are you usually busy at weekends?

B What do you usually do on Fridays?

C What are you going to do on Saturday?

D Can I come and see you next weekend?

			1	الرقم
			D	الحل

Ancient Instruments and Measuring the Stars

1. The most ancient device found in all early civilisations, is a "shadow stick". The shadow cast from a shadow stick was used to observe the motion of the Sun and thus to tell time. Today we call this instrument a Gnomon. The name gnomon comes from the Greek and refers to any L-shaped instrument, originally used to draw a right angle.
2. In Euclid Book II, where Euclid deals with the transformation of areas, the gnomon takes the form of an "L-shaped" area touching two adjacent sides of a parallelogram. Today, a gnomon is the vertical rod or similar device that makes the shadow on a sundial.
3. The Merkheth is one of the oldest known astronomical instruments. It was developed around 600 BCE and uses a plumb line to obtain a true vertical. Babylonian and Egyptian astronomers were able to measure the altitude and lateral displacement of heavenly objects from a particular direction by using a Merkheth, thus giving the earliest ideas of turning, or angle.
4. A pair of merkheths were used to establish a North-South direction by lining them up, one behind the other, with the Pole Star. Viewing the plumb lines through the sight made sure the two merkheths and the sight were in the same straight line with the Pole Star. Using a water clock to determine timings, this arrangement of merkheths allowed people to take measurements of night-time events, for example times when certain stars crossed the vertical plumb line (a "transit line").
5. The Egyptians divided the 360 degrees of the ecliptic into 36 sections of 10 degrees each. This division was known before 2300 BCE. Each ten-degree section (called a decan from the Greek for ten) contained a constellation of stars lined up along the ecliptic. Since the Earth makes a full rotation in 24 hours, the stars in a new decan will rise above the

horizon about every 40 minutes. The system of decans was used for determining the night hours and the seasons.

Babylonian Astronomers

- 6) Observations of celestial bodies by the Babylonians from about 1,800 BCE gave rise to the eventual division of the circle into 360 degrees, and by about 500 BCE, the division of the heavens into twelve regions of 30 degrees each, often referred to as the 12 houses of the zodiac. The Babylonians recorded the events of the lunar month, the daily movement of the sun across the sky over the year, and the rising and setting of the major planets. So, by 750 BCE astronomers had a reasonably accurate means of measuring the elevation (latitude) and lateral direction (longitude) of all objects in the heavens. They built up an extensive collection of data, and made tables of the positions of objects in the sky at any given time through a year (these tables are called ephemerides).
- 7) Using observational techniques like heliacal rising, which occurs when a planet, star or other body first becomes visible above the eastern horizon at dawn, it was discovered that:
 - the constellations of the zodiac completed a full circle through the sky once a year
 - the Sun's apparent movement daily across the sky formed 1360 of a circle
 - the moon moved through about 13360 of a circle each day
 - the Ecliptic was inclined to the horizon (about 2312 degrees)
 - planets were travelling through the starry background in regular paths that were sometimes moving back on themselves in a loop (retrograde)
 - eclipses of the moon and the sun could be predicted
 - transits of planets (e.g., Venus) moving across the face of the sun, and occultations (where the moon covered the stars) could be observed

These observations continued over many centuries, slowly becoming more accurate, so that ancient people were able to make star maps, and detect the regular events in the heavens.

- 8) Many seasonal phenomena like the flooding of the Nile, or special events like religious ceremonies were linked to astronomical phenomena.

The ability to predict some of these major astronomical events gave rise to

الكلمة في الصفحة التالية

astrology, where people believed that there was a link between heavenly and earthly events, and that the stars had some control over their lives. See this BBC news item about a prehistoric star map.

1. The Babylonians and Chinese both believed that the earth and the moon were spherical, that the earth and the moon rotated on an axis, and that the sun and the planets moved in circles round the earth. This enabled them to be able to explain the phases of the moon, and predict eclipses of the moon and the sun by believing that the earth cast a shadow on the moon, and the moon cast a shadow over the sun. They were able to predict paths of other objects across the sun, for example the transit of Venus, a description and explanation of which can be found on Wikipedia.
2. The Babylonian astronomers recorded astronomical data systematically and by the Seleucid period (330-125BCE) there were a great many astronomical tablets showing ephemerides for the moon and the major planets. Many of the tablets contain "procedures" or instructions for how to calculate intervals between astronomical events using the properties of simple arithmetic progressions. These procedural processes were the earliest steps of a mathematical astronomy, and both the procedures and the data were used by those who came later. The Babylonians wrote down lists of numbers, in what we would call an arithmetic progression and recognized that numbers repeated themselves over periods of time.

Chinese Astronomy

1. The Chinese were the most accurate observers of celestial phenomena before the Arabs. "Oracle Bones" with star names engraved on them dating back to the Chinese Bronze Age (about 2,000 BCE) have been found, and very old star maps have been found on pottery, engraved on stones, and painted on the walls of caves. Surviving records of astronomical observations made by two astronomers Shi Shen and Gan De date from the 4th century BCE.
2. Shi Shen wrote a book on astronomy, and made a star map and a star catalogue. In 364 BCE Gan De made the first recorded observation of sunspots, and the moons of Jupiter and they both made accurate observations of the five major planets. Their observations were based on the principle of the stars rotating about the pole (equivalent to the earth rotating on its axis).
1. The oldest star map found so far is from Dunhuang. Earlier thought to date from about 940 CE, it was made with precise mathematical methods by the astronomer and mathematician Li Chunfeng (602-670) and shows 1339 stars in 257 Chinese star groups with a precision between 1.5 and 4 degrees of arc. In all there are 12 charts each in 30-degree sections displaying the full sky visible from the Northern hemisphere. Up to now it is the oldest complete preserved star atlas discovered from any civilisation. It has been on display this year in the British Library to celebrate 2009 as the International Year of Astronomy.
2. Some elements of Indian astronomy reached China with the expansion of Buddhism (25-220 CE). Later, during the period (618-907 CE) a number of Indian astronomers came to live in China and Islamic astronomers collaborated closely with their Chinese counterparts particularly during (1271-1368).
3. Very little of the knowledge of the Indians and the Chinese was known in Europe before the Portuguese navigators and the Jesuit scientist Matteo Ricci in the fifteenth century. Babylonian astronomy contributed direct empirical data as a foundation for Greek theory and exactly the same data which provided the information for the "zig-zag" data results in Babylonian theory were used to calculate the mean motions of the sun and moon by Hipparchus.

الأسئلة في الصفحة التالية

القطعة في الصفحتين السابقة

1

Who used the "Merkhet" to measure altitude?

- A Babylonian and Egyptian astronomers
- B Babylonian and Greek astronomers.
- C Greek and Egyptian astronomers.
- D Greek and Chinese astronomers.

2

What two objects did the Babylonian and Chinese believe rotated an axis?

- A the sun and the moon
- B The earth and the sun
- C The earth and the moon
- D The sun and the Venus

3

What did Gan De make in 364 BC?

- A a star map and observations of Jupiter's moons.
- B a star catalogue and observations of five planets
- C observations of five planets and Jupiter's moons
- D Observations of Jupiter's moons and a star catalogue

4

According to paragraphs 3 and 4, what did the Dinar and Rupee have in common?

- A The material form which they were made.
- B The similar origin of the names.
- C The countries they are used in.
- D The value that they held.

4	3	2	1	الرقم
A	C	C	A	الحل

القطعة في الصفحتين السابقة

1

The word it in paragraph 6, refers to...

A Peso.

B Spain.

C Weight.

D Markka.

2

The expression derived from in paragraph 7, is closest in meaning to....

A Originated.

B Translated.

C Explained.

D Produced.

3

According to paragraph 8, the origin of the word Riyal is.....

A Hejazi.

B Spanish.

C Yemeni.

D Ottoman.

	3	2	1	الرقم
	B	A	A	الحل

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1

This gardener wants to work at.....

A a residence

B a hospital

C an office

D a farm

2

When can the gardener be contacted?

A weekday evenings

B weekend evenings

C any time

D Saturday

		2	1	الرقم
		A	A	الحل

1. With lignin and appropriate architecture, we truly have wood. It is wood that makes trees. In practice, it is mainly the cells of the conducting vessels that become lignified, and they and their surrounding supporting cells are the main ingredient in timber.

1

The word they in the passage refers to

A cells

B vessels

C timber

D Trees

			1	الرقم
			A	الحل