READING PASSAGE 1

You should spend about 20 minutes on **Questions 1-13** which are based on Reading Passage 1 below.

Lie Detector

A

However much we may abhor it, deception comes naturally to all living things. Birds do it by feigning injury to lead hungry predators away from nesting young. Spider crabs do it by disguise: adorning themselves with strips of kelp and other debris, they pretend to be something they are not—and so escape their enemies. Nature amply rewards successful deceivers by allowing them to survive long enough to mate and reproduce. So it may come as no surprise to learn that human beings–who, according to psychologist Gerald Jellison of the University of South California, are lied to about 200 times a day, roughly one untruth every five minutes–often deceive for exactly the same reasons: to save their own skins or to get something they can't get by other means.

B

But knowing how to catch deceit can be just as important a survival skill as knowing how to tell a lie and get away with it. A person able to spot falsehood quickly is unlikely to be swindled by an unscrupulous business associate or hoodwinked by a devious spouse. Luckily, nature provides more than enough clues to trap dissemblers in their own tangled webs—if you know where to look. By closely observing facial expressions, body language and tone of voice, practically anyone can recognize the telltale signs of lying. Researchers are even programming computers–like those used on Lie Detector—to get at the truth by analyzing the same physical cues available to the naked eye and ear. "With the proper training, many people can learn to reliably detect lies," says Paul Ekman, professor of psychology at the University of California, San Francisco, who has spent the past 15 years studying the secret art of deception.

C

In order to know what kind of lies work best, successful liars need to accurately assess other people's emotional states. Ekman's research shows that this same emotional intelligence is essential for good lie detectors, too. The emotional state to watch out for is stress, the conflict most liars feel between the truth and what they actually say and do.

D

Even high-tech lie detectors don't detect lies as such; they merely detect the physical cues of emotions, which may or may not correspond to what the person being tested is saying. Polygraphs, for instance, measure respiration, heart rate and

LIVEWORKSHEETS

skin conductivity, which tend to increase when people are nervous–as they usually are when lying. Nervous people typically perspire, and the salts contained in perspiration conduct electricity. That's why a sudden leap in skin conductivity indicates nervousness–about getting caught, perhaps? –which might, in turn, suggest that someone is being economical with the truth. On the other hand, it might also mean that the lights in the television studio are too hot–which is one reason polygraph tests are inadmissible in court. "Good lie detectors don't rely on a single sign," Ekman says, "but interpret clusters of verbal and nonverbal clues that suggest someone might be lying."

E

Those clues are written all over the face. Because the musculature of the face is directly connected to the areas of the brain that process emotion, the countenance can be a window to the soul. Neurological studies even suggest that genuine emotions travel different pathways through the brain than insincere ones. If a patient paralyzed by a stroke on one side of the face, for example, is asked to smile deliberately, only the mobile side of the mouth is raised. But tell that same person a funny joke, and the patient breaks into a full and spontaneous smile. Very few people–most notably, actors and politicians–are able to consciously control all of their facial expressions. Lies can often be caught when the liar's true feelings briefly leak through the mask of deception. "We don't think before we feel," Ekman says. "Expressions tend to show up on the face before we're even conscious of experiencing an emotion."

F

One of the most difficult facial expressions to fake—or conceal, if it is genuinely felt–is sadness. When someone is truly sad, the forehead wrinkles with grief and the inner corners of the eyebrows are pulled up. Fewer than 15% of the people Ekman tested were able to produce this eyebrow movement voluntarily. By contrast, the lowering of the eyebrows associated with an angry scowl can be replicated at will by almost everybody. "If someone claims they are sad and the inner corners of their eyebrows don't go up," Ekman says, "the sadness is probably false."

G

The smile, on the other hand, is one of the easiest facial expressions to counterfeit. It takes just two muscles–the zygomaticus major muscles that extend from the cheekbones to the corners of the lips–to produce a grin. But there's a catch. A genuine smile affects not only the corners of the lips but also the orbicularis oculi, the muscle around the eye that produces the distinctive "crow's-feet" associated with people who laugh a lot. A counterfeit grin can be unmasked if the lip corners go up, the eyes crinkle but the inner corners of the eyebrows are not lowered, a

LIVEWORKSHEETS

movement controlled by the orbicularis oculi that are difficult to fake. The absence of lowered eyebrows is one reason why false smiles look so strained and stiff.

Questions 1-5

Do the following statements agree with the information given in Reading Passage 1?

*In boxes **1 – 5** on your answer sheet, write*

TRUE if the statement agrees with the information

FALSE if the statement contradicts the information

NOT GIVEN if the information is not given in the passage

1 All living animals can lie.

2 Some people tell lies for self-preservation.

3 The fact of lying is more important than detecting one.

4 Researchers are using equipment to study which part of the brain is responsible for telling lies.

5 To be a good liar, one has to understand other people's emotions.

Questions 6 – 9

Choose the correct letter **A**, **B**, **C** or **D**.

*Write your answer in boxes **6-9** on your answer sheet.*

6 How does a lie-detector work?

A It analyzes one's verbal response to a question.

B It records the changes in one's facial expression.

C It illustrates the reasons about the emotional change when one is tested.

D It monitors several physical reactions in the person undergoing the test.

7 Why couldn't lie detectors be used in a court of law?

A because the nonverbal clues are misleading.

B because there could be other causes of a certain change in the equipment.

C because the lights are too hot.

D because the statistic data on the lie detectors are not accurate.

8 The writer quotes from the paralyzed patients

A to exemplify people's response to true feelings.

B to show the pathways for patients to recover.

C to demonstrate the paralyzed patient's ability to smile.

D to emphasize that the patient is in a state of stroke.

9 According to the passage, politicians

A can express themselves clearly.

B are good at masking their emotions.

C are conscious of the surroundings.

LIVEWORKSHEETS

D can think before action.

Questions 10 – 13

Classify the following facial traits as referring to

A Happiness

B Anger

C Sadness

Write the correct letter **A**, **B** or **C** in boxes **10-13** on your answer sheet.

10 Lines formed above eyebrows

11 Movement from muscle that orbits the eye

12 Eyebrows down

13 Inner corner of eyebrows raised

READING PASSAGE 2

You should spend about 20 minutes on **Questions 14-26** which are based on Reading Passage 2 below.

Chinese Yellow Citrus Ant
for
BIOLOGICAL CONTROL

A

In 1476, the farmers of Berne in Switzerland decided, according to this story, there was only one way to rid their fields of the cutworms attacking their crops. They took the pests to court. The worms were tried, found guilty and excommunicated by the archbishop. In China, farmers had a more practical approach to pest control. Rather than rely on divine intervention, they put their faith in frogs, ducks and ants. Frogs and ducks were encouraged to snap up the pests in the paddies and the occasional plague of locusts. But the notion of biological control began with an ant. More specifically, the story says, it started with the predatory yellow citrus ant Oecophylla smaragdina, which has been polishing off pests in the orange groves of southern China for at least 1700 years. The yellow citrus ant is a type of weaver ant, which binds leaves and twigs with silk to form a neat, tent-like nest. In the beginning, farmers made do with the odd ants'nest here and there. But it wasn't long before growing demand led to the development of a thriving trade in nests and a new type of agriculture—ant farming.

B

LIVEWORKSHEETS

Foran insect that bites, the yellow citrus ant is remarkably popular. Even by ant standards, Oecophylla smaragdina is a fearsome predator. It's big, runs fast and has a powerful nip—painful to humans but lethal to many of the insects that plague the orange groves of Guangdong and Guangxi in southern China. And for at least 17 centuries. Chinese orange growers have harnessed these six-legged killing machines to keep their fruit groves healthy and productive. The story explains that citrus fruits evolved in the Far East and the Chinese discovered the delights of their flesh early on. As the ancestral home of oranges, lemons and pomelos, China also has the greatest diversity of citrus pests. And the trees that produce the sweetest fruits, the mandarins—or kan–attract a host of plant-eating insects, from black ants and sap-sucking mealy bugs to leaf-devouring caterpillars. With so many enemies, fruit growers clearly had to have some way of protecting their orchards.

C

The West did not discover the Chinese orange growers' secret weapon until the early 20th century. At the time, Florida was suffering an epidemic of citrus canker and in 1915 Walter Swingle, a plant physiologist working for the US Department of Agriculture, was, the story says, sent to China in search of varieties of orange that were resistant to the disease. Swingle spent some time studying the citrus orchards around Guangzhou, and there he came across the story of the cultivated ant. These ants, he was told, were "grown" by the people of a small village nearby who sold them to the orange growers by the nestful.

D

The earliest report of citrus ants at work among the orange trees appears in a book on tropical and subtropical botany written by His Han in AD 304. "The people of Chiao-Chih sell in their markets ants in bags of rush matting. The nests are like silk. The bags are all attached to twigs and leaves which, with the ants inside the nests, are for sale. The ants are reddish-yellow in colour, bigger than ordinary ants. In the south, if the kan trees do not have this kind of ant, the fruits will all be damaged by many harmful insects, and not a single fruit will be perfect.

E

Initially, farmers relied on nests which they collected from the wild or bought in the market where trade in nests was brisk. 'It is said that in the south orange trees which are free of ants will have wormy fruits. Therefore the people race to buy nests for their orange trees, 'wrote Liu Hsun in Strange Things Noted in the South, written about AD 890. The business quickly became more sophisticate. From the 10th century, country people began to trap ants in artificial nests baited with fat. "Fruit growing families buy these ants from vendors who make a business of collecting and selling such creatures, "wrote Chuang Chi-Yu in 1130. "They trap them by filling hogs 'or sheep's bladders with fat and placing them with the cavities

LIVEWORKSHEETS

open next to the ants 'nests. They wait until the ants have migrated into the bladders and take them away. This is known as 'rearing orange ants'. "Farmers attached the bladders to their trees, and in time the ants spread to other trees and built new nests. By the 17th century, growers were building bamboo walkways between their trees to speed the colonization of their orchards. The ants ran along these narrow bridges from one tree to another and established nests "by the hundreds of thousands".

F

Did it work? The orange growers clearly thought so. One authority, Chi Ta-Chun, writing in 1700, stressed how important it was to keep the fruit trees free of insect pests, especially caterpillars. "It is essential to eliminate them so that the trees are not injured. But hand labour is not nearly as efficient as ant power..." Swingle was just as impressed. Yet despite this report, many Western biologists were skeptical. In the West, the idea of using one insect to destroy another was new and highly controversial. The first breakthrough had come in 1888, when the infant orange industry in California had been saved from extinction by the Australian vedalia beetle. This beetle was the only thing that had made an inroad into the explosion of cottony cushion scale that was threatening to destroy the state's citrus crops. But, as Swingle now knew, California's "first" was nothing of the sort. The Chinese had been an expert in biocontrol for many centuries.

G

The story goes on to say that the long tradition of ants in the Chinese orchards only began to waver in the 1950s and 1960s with the introduction of powerful organic (I guess the author means chemical insecticides). Although most fruit growers switched to chemicals, a few hung onto their ants. Those who abandoned ants in favour of chemicals quickly became disillusioned. As costs soared and pests began to develop resistance to the chemicals, growers began to revive the old ant patrols. They had good reason to have faith in their insect workforce. Research in the early 1960s showed that as long as there were enough ants in the trees, they did an excellent job of dispatching some pests—mainly the larger insects—and had modest success against others. Trees with yellow ants produced almost 20 per cent more healthy leaves than those without. More recent trials have shown that these trees yield just as big a crop as those protected by expensive chemical sprays.

H

One apparent drawback of using ants—and one of the main reasons for the early skepticism by Western scientists—was that citrus ants do nothing to control mealy bugs, waxy-coated scale insects which can do considerable damage to fruit trees. In fact, the ants protect mealy bugs in exchange for the sweet honeydew they secrete. The orange growers always denied this was a problem but Western

LIVEWORKSHEETS

scientists thought they knew better. Research in the 1980s suggests that the growers were right all along. Where mealy bugs proliferate under the ants 'protection they are usually heavily parasitized and this limits the harm they can do. Orange growers who rely on carnivorous ants rather than poisonous chemicals maintain a better balance of species in their orchards. While the ants deal with the bigger insect pests, other predatory species keep down the numbers of smaller pests such as scale insects and aphids. In the long run, ants do a lot less damage than chemicals—and they're certainly more effective than ex-communication.

Questions 14-18

Use the information in the passage to match the year (listed **A-G**) with the correct description below.

*Write the appropriate letters **A-G** in boxes **14-18** on your answer sheet.*

NB *You may use any letter more than once*

A 1888
B 1476
C 1915
D 1700
E 1130
F 304 AD
G 1950

14 First record of ant against pests written.
15 WS studied ant intervention method in China.
16 First case of orange crops rescued by an insect in the western world.
17 Chinese farmers start to choose a chemical method.
18 A book wrote mentioned ways to trap ants.

Questions 19-26

Do the following statements agree with the information given in Reading Passage 2?

*In boxes **19-26** on your answer sheet, write*

TRUE if the statement is true
FALSE if the statement is false
NOT GIVEN if the information is not given in the passage

19 China has the most orange pests in the world.
20 Swingle came to China in order to search an insect for the US government.
21 Western people were impressed by Swingle's theory of pest prevention.
22 Chinese farmers realised that price of pesticides became expensive.
24 Trees without ants had more unhealthy fallen leaves than those with.

LIVEWORKSHEETS

25 Yield of fields using ants is larger a crop than that using chemical pesticides.
26 Chinese orange farmers proposed that ant protection doesn't work out of China.

READING PASSAGE 3

You should spend about 20 minutes on **Questions 27-40** which are based on Reading Passage 3 below.

Travel Books

There are many reasons why individuals have travelled beyond their own societies. Some travellers may have simply desired to satisfy curiosity about the larger world. Until recent times, however, travellers did start their journey for reasons other than mere curiosity. While the travellers' accounts give much valuable information on these foreign lands and provide a window for the understanding of the local cultures and histories, they are also a mirror to the travellers themselves, for these accounts help them to have a better understanding of themselves.

Records of foreign travel appeared soon after the invention of writing, and fragmentary travel accounts appeared in both Mesopotamia and Egypt in ancient times. After the formation of large, imperial states in the classical world, travel accounts emerged as a prominent literary genre in many lands, and they held especially strong appeal for rulers desiring useful knowledge about their realms. The Greek historian Herodotus reported on his travels in Egypt and Anatolia in researching the history of the Persian wars. The Chinese envoy Zhang Qian described much of central Asia as far west as Bactria (modern-day Afghanistan) on the basis of travels undertaken in the First century BCE while searching for allies for the Han dynasty. Hellenistic and Roman geographers such as Ptolemy, Strabo, and Pliny the Elder relied on their own travels through much of the Mediterranean world as well as reports of other travellers to compile vast compendia of geographical knowledge.

During the post-classical era (about 500 to 1500 CE), trade and pilgrimage j? emerged as major incentives for travel to foreign lands. Muslim merchants sought trading opportunities throughout much of the eastern hemisphere. They described lands, peoples, and commercial products of the Indian Ocean basin from East Africa to Indonesia, and they supplied the First written accounts of societies in sub-Saharan West Africa. While merchants set out in search of trade and profit, devout Muslims travelled as pilgrims to Mecca to make their hajj and visit the holy sites of Islam. Since the prophet Muhammad's original pilgrimage to Mecca, untold millions of Muslims have followed his example, and thousands of hajj accounts have related their experiences. East Asian travellers were not quite so prominent as Muslims

LIVEWORKSHEETS

during the postclassical era, but they too followed many of the highways and sea lanes of the eastern hemisphere. Chinese merchants frequently visited South-East Asia and India, occasionally venturing even to East Africa, and devout East Asian Buddhists undertook distant pilgrimages. Between the 5th and 9th centuries CE, hundreds and possibly even thousands of Chinese Buddhists travelled to India to study with Buddhist teachers, collect sacred texts, and visit holy sites. Written accounts recorded the experiences of many pilgrims, such as Faxian, Xuanzang, and Yijing. Though not so numerous as the Chinese pilgrims, Buddhists from Japan, Korea, and other lands also ventured abroad in the interests of spiritual enlightenment.

Medieval Europeans did not hit the roads in such large numbers as their Muslim and East Asian counterparts during the early part of the post-classical era, although gradually increasing crowds of Christian pilgrims flowed to Jerusalem, Rome, Santiago de Compostela (in northern Spain), and other sites. After the 12th century, however, merchants, pilgrims, and missionaries from medieval Europe travelled widely and left numerous travel accounts, of which Marco Polo's description of his travels and sojourn in China is the best known. As they became familiar with the larger world of the eastern hemisphere – and the profitable commercial opportunities that it offered – European peoples worked to find new and more direct routes to Asian and African markets. Their efforts took them not only to all parts of the eastern hemisphere, but eventually to the Americas and Oceania as well.

If Muslim and Chinese peoples dominated travel and travel writing in postclassical times, European explorers, conquerors, merchants, and missionaries took centre stage during the early modern era (about 1500 to 1800 CE). By no means did Muslim and Chinese travel come to a halt in early modern times. But European peoples ventured to the distant corners of the globe, and European printing presses churned out thousands of travel accounts that described foreign lands and peoples for a reading public with an apparently insatiable appetite for news about the larger world. The volume of travel literature was so great that several editors, including Giambattista Ramusio, Richard Hakluyt, Theodore de Bry, and Samuel Purchas, assembled numerous travel accounts and made them available in enormous published collections.

During the 19th century, European travellers made their way to the interior regions of Africa and the Americas, generating a fresh round of travel writing as they did so. Meanwhile, European colonial administrators devoted numerous writings to the societies of their colonial subjects, particularly in Asian and African colonies they established. By mid-century, attention was flowing also in the other direction. Painfully aware of the military and technological prowess of European and Euro-

LIVEWORKSHEETS

American societies, Asian travellers in particular visited Europe and the United States in hopes of discovering principles useful for the organisation of their own societies. Among the most prominent of these travellers who made extensive use of their overseas observations and experiences in their own writings were the Japanese reformer Fukuzawa Yukichi and the Chinese revolutionary Sun Yat-sen. With the development of inexpensive and reliable means of mass transport, the 20th century witnessed explosions both in the frequency of long-distance travel and in the volume of travel writing. While a great deal of travel took place for reasons of business, administration, diplomacy, pilgrimage, and missionary work, as in ages past, increasingly effective modes of mass transport made it possible for new kinds of travel to flourish. The most distinctive of them was mass tourism, which emerged as a major form of consumption for individuals living in the world's wealthy societies. Tourism enabled consumers to get away from home to see the sights in Rome, take a cruise through the Caribbean, walk the Great Wall of China, visit some wineries in Bordeaux, or go on safari in Kenya. A peculiar variant of the travel account arose to meet the needs of these tourists: the guidebook, which offered advice on food, lodging, shopping, local customs, and all the sights that visitors should not miss seeing. Tourism has had a massive economic impact throughout the world, but other new forms of travel have also had considerable influence in contemporary times.

Questions 27-28

Choose the correct letter **A**, **B**, **C** or **D**.

*Write your answers in boxes **27-28** on your answer sheet.*

27 What were most people travelling for in the early days?

A Studying their own cultures

B Business

C Knowing other people and places better

D Writing travel books

28 Why did the author say writing travel books is also "a mirror" for travellers themselves?

A Because travellers record their own experiences.

B Because travellers reflect upon their own society and life.

C Because it increases knowledge of foreign cultures.

D Because it is related to the development of human society.

Questions 29-36

Complete the table on the next page.

Choose **NO MORE THAN TWO WORDS** from Reading Passage 3 for each answer.

LIVEWORKSHEETS

TIME	TRAVELLER	DESTINATION	PURPOSE OF TRAVEL
Classical Greece	Herodotus	Egypt and Anatolia	To gather information for the study of **29** _____
Han Dynasty	Zhang Qian	Central Asia	To seek **30** _____
Roman Empire	Ptolemy, Strabo, Pliny the Elder	Mediterranean	To acquire **31** _____
Post-classical Era (about 500 to 1500 CE)	Muslims	From East Africa to Indonesia, Mecca	For trading and **32** _____
5th to 9th centuries CE	Chinese Buddhists	**33** _____	To collect Buddhist texts and for spiritual enlightenment
Early modern era (about 1500 to 1800 CE)	European explorers	New World	To satisfy public curiosity for the New World
During 19th century	Colonial administrators	Asia, Africa	To provide information for the **34** _____ they set up
By mid-century	Sun Yat-sen, Fukuzawa Yukichi	Europe and the United States	To study the **35** _____ of their societies

LIVEWORKSHEETS

of the 1800s			
20th century	People from **36** _____ countries	Mass tourism	Entertainment and pleasure

Questions 37-40

Choose the correct letter, **A**, **B**, **C** or **D**.

*Write your answers in boxes **37-40** on your answer sheet.*

37 Why were the imperial rulers especially interested in these travel stories?

A Reading travel stories was a popular pastime.

B The accounts are often truthful rather than fictional.

C Travel books played an important role in literature.

D They desired knowledge of their empire.

38 Who were the largest group to record their spiritual trips during the postclassical era?

A Muslim traders

B Muslim pilgrims

C Chinese Buddhists

D Indian Buddhist teachers

39 During the early modern era, a large number of travel books were published to

A meet the public's interest.

B explore new business opportunities.

C encourage trips to the new world.

D record the larger world.

40 What's the main theme of the passage?

A The production of travel books

B The literary status of travel books

C The historical significance of travel books

D The development of travel books

LIVEWORKSHEETS