

IELTS

Actual Tests

Reading & Listening



ACADEMIC MODULE

Based on Past Papers in 2019

10 Reading Actual Tests in 2019

10 Listening Actual Tests in 2019



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IELTS ACTUAL TESTS – READING & LISTENING ACADEMIC MODULE

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LISTENING

TEST 1

SECTION 1

Question 1-5

Complete the table below.

Write ONE WORD AND/OR NUMBERS for each answer.

JOB HUNTING			
Company's name	Job details	Reference number	Contact
<i>Example</i> <u>POWER</u> (manufacturing company)	<ul style="list-style-type: none"> • work in a 1 section 	SW35FT	Jane 2
COTTON (grocery company)	<ul style="list-style-type: none"> • good pay • work – in 3 office – in a 4 • chance of promotion 	5	go to office

Question 6 -10

Complete the notes below

Write ONE WORD ONLY for each answer.

Notes on Jobs

- Local jobs can be found in the 6.....
- Buy the 7.....to get one free magazine (Job Plus)
- Feel stress and spend a lot of time looking for jobs
- Advisable to go to an 8.....instead of the recruitment seminar
- Bring a student card (10% discount)
- Referee:
 - former boss (once had a job)
 - one of the 9.....(if not)
- Intend to take the art course

- Fill out a 10.....form at the end of the course

SECTION 2

Question 11 - 15

Choose the correct letter, A, B or C.

11 The reason why David is replacing Jane is that

- A. she is unwell.
- B. she is very busy.
- C. she is inexperienced.

12 According to the speaker, what is the problem for the museum currently?

- A. lack of staff
- B. lack of publicity
- C. lack of money

13 Why were the thieves able to successfully steal the statue?

- A. The security device is outdated.
- B. The security guard is not well-trained.
- C. They knew what they were searching for.

14 In order to improve security, they are going to

- A. get more closed-circuit television cameras.
- B. hire more security guards.
- C. buy more computers.

15 What kind of librarian are they looking for?

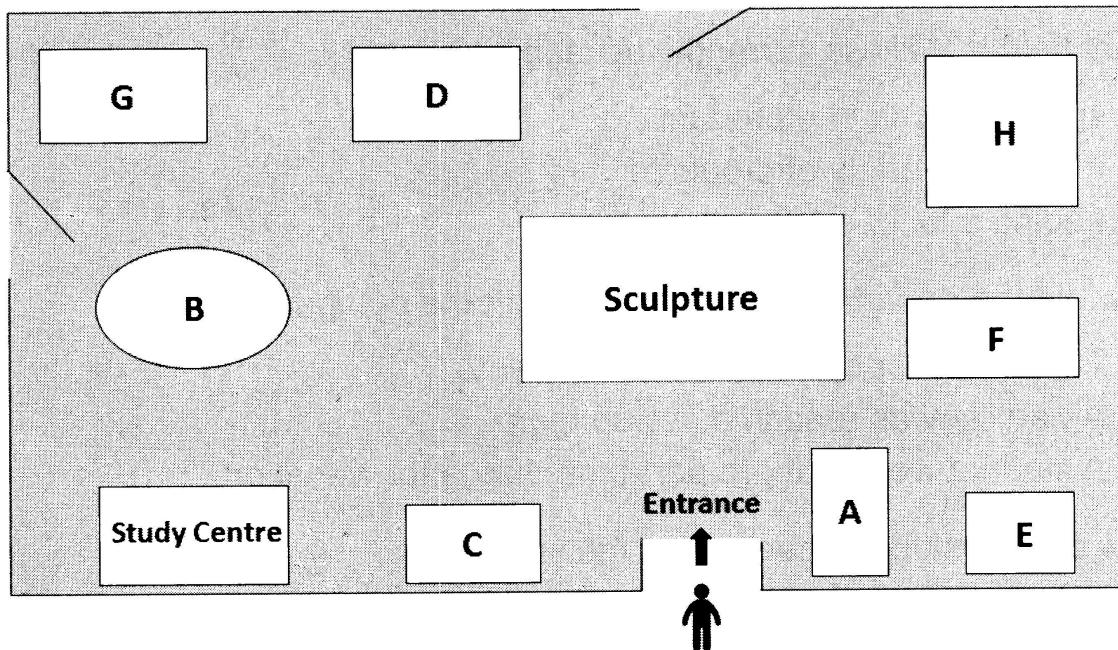
- A. responsible
- B. experienced
- C. highly-trained

Question 16 - 20

Label the map below.

Write the correct letter, A-H, next to questions 16-20.

City Museum



- 16 Box Office
 17 Children's Room
 18 Cafe
 19 Multimedia Room
 20 Showroom

SECTION 3

Question 21 - 26

Choose the correct letter, A, B or C.

Willows Studies

- 21 What field is Willows currently focused on?
 A. Specialising in one product
 B. making a variety of products
 C. adding a lot of retail outlet
22. How did the students feel about the software?
 A. The professor contacted the company.
 B. An article was read in a newspaper
 C. A student work their part-time during the vacations.

23. How did the student fell about the software

- A. It's not easy to predict.
- B. It's slow for drawing designs
- C. It had a good interface.

24 How did the students find out about the effects of the software on the company?

- A. They went to the IT department.
- B. They talked with the manager.
- C. They inspected the accounts.

25 The reason why the students have a face-to-face interview alone is that

- A. they could prepare for exams.
- B. there will be less disturbance.
- C. it's less realistic.

26 How did the two students perform in the exam?

- A. very disappointing
- B. significantly good
- C. above the average

Question 27 - 28

Choose TWO letters, A-E.

In which TWO ways will the new system affect the company?

- A. gain more profit
- B. employ more new staff
- C. increase sales
- D. reduce production time
- E. cut labour costs

Questions 29 and 30

Choose TWO letters, A

Which TWO effects will the new system have on new clients?

- A. getting more involved in the design
- B. obtaining more contacts

- C. linking at home to do online work
- D. wasting less time
- E. decreasing labour costs

SECTION 4

Complete the notes below.

Write ONE WORD ONLY for each answer.

A Survey Research

Results of Questionnaire

- The patients preferred to choose the hospital because of the free 31..... service provided.
- Most patients wished the hospital to be 32.....
- Patients were concerned about prior 33.....about the hospital treatment.

Actions in the next year

- improvements on website for local 34.....as well as hospital medical staff
- incentive to motivate the members of staff
- extra 35.....for staff's success in work
- considering the opinions of the 36
- improving the effectiveness of 37.....between patients, doctors and staff
- first-come-first-served system

Recommendation

- A new unit would be built for those who are suffering from 38..... disturbance.
- A new ward would be proposed to those in need of 39..... surgery.
- The equipment is advanced enough to do with the treatments.
- More effective 40.....is needed to improve the efficiency of communication.

TEST 2

SECTION 1

Complete the table below.

Write ONE WORD AND/OR A NUMBER for each answer.

Notes on A Part-time Society

Example

Name of society: Leighton

Location: 1.....house

Want: 2.....actors and singers (no experience required)

Transportation: shuttle services (need someone who is able to 3.....)

Meeting time: 6:00-8:00pm

every 4.....

Close time: during 5.....

Membership fee (including 6.....)

- £40 for employed members (under 30 years of age)

- £ 60 for employed members (30-60 years of age)

- £ 7 for retired or unemployed members (over 60 years of age)

Minimum joining age

- 8.....

Most members are

- friendly

- fond of culture and music

- 9.....authors looking for new experiences to write about in their books

Charity

The children's 10.....will get the money raised by the annual dinner.

SECTION 2

Questions 11-14

Choose the correct letter, A, B or C.

11 What kind of changes is the station making?

- A. relocation
- B. reconstruction
- C. expansion

12 The original buildings on the site were

- A. houses.
- B. industrial buildings.
- C. shops.

13 Firstly the station intended to use the site as

- A. a leisure centre.
- B. a car park.
- C. a lounge.

14 The new buildings will be situated to the right side of

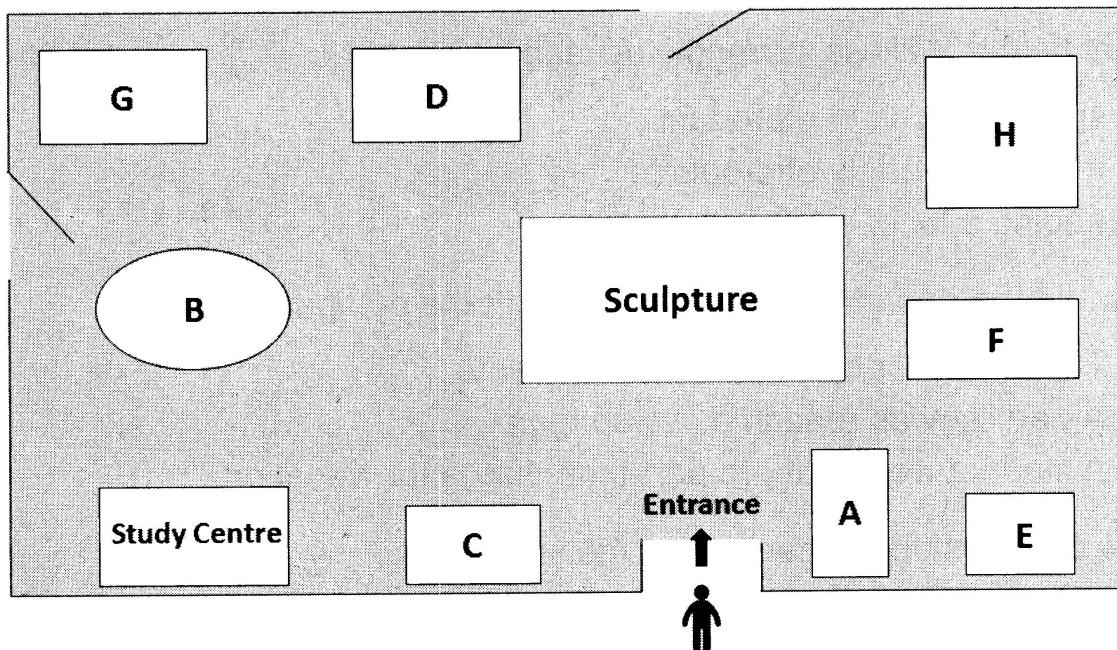
- A. the shopping district.
- B. the apartment blocks.
- C. the new formal gardens.

Question 15- 20

Label the map below.

Write the correct letter, A-G, next to questions 15-20.

Leisure Complex Plan



- 15 Cafe
- 16 Taxi Rank
- 17 CarPark
- 18 Passenger Waiting Area
- 19 Waiting Area for Wheelchair Users
- 20 Tourist Office

SECTION 3

Questions 21-25

Choose the correct letter, A, B or C.

- 21 What has Irene recently done?
 A. She has almost finished planning the experiment.
 B. She is not applying herself enough to her work.
 C. She spends a lot of time in the laboratory.
- 22 What is Bill's attitude toward Kim?
 A. He is grateful for Kim's contribution.
 B. He is not fond of Kim's tastes in clothes.
 C. He thinks Kim is not good at laboratory work.
- 23 What does Jen think of the other people in the group?

- A. The boys are good at maths which is very helpful.
- B. They would fail the experiment without Irene's contribution.
- C. Irene has completed the data analysis so the experiment is nearly done.

24 How did Jen and Bill feel about Linda?

- A. She was always submitted her work late for the group work.
- B. She was difficult to get in touch with.
- C. She thought it was easy to get a high score.

25 Why was Jen invited to the professor's individual project?

- A. She was quite popular among students.
- B. She always finished reading all the assignments.
- C. She was close to the professor.

Question 26- 30

What task has been given to each person?

Choose FIVE answers from the box and write the correct letter, A-G, next to questions 26-30.

Tasks

- A. Abstract
- B. Acknowledgement
- C. Methodology
- D. Bibliography
- E. Literature review
- F. Results
- G. Discussion

Person

- 26 Irene
- 27 Kim
- 28 Jen
- 29 Bill
- 30 Linda

SECTION 4

Complete the notes below.

Write ONE WORD ONLY for each answer.

Nanotechnology

General information

explanation: manipulation of matter on a minutes scale

huge investment in research

The reason why development of Nanotechnology may be started because of a new type of 31.....

Application

a) daily lives

- aids in getting 32..... from diet
- reduces the cost of 33.....
- improves the 34..... of food

b) agriculture

- use of Nanotechnology has resulted in a spray which increase the efficiency of 35..... in the soil and can be use instead of Artificial chemical

c) medical area

- Nanotechnology can help avoid food poisoing
- Nanotechnology can kill foods' 36.....and make them safe to eat.
- Nanoparticles are injected into the body and allow 37.....to enter the veins.
- Some certain nanoparticles are able to sterilise more than 650 types of bacteria.
- 38.....has the greatest antibacterial qualities.
- Splifferenes help 39 loss programmes.

d) cosmetics

- Preventing 40.....from entering the body avoids skin cancer.

TEST 3

SECTION 1

Complete the notes below.

Write NO MORE THAN TWO WORDS AND/OR A NUMBER for each answer.

Job Enquiry

Example

- name: Freddie Lea
- location: 1.....Island
- Starting date: 2.....
- Age: 17
- Four vacancies for 3.....
- Pay: 5.52 per hour
- Qualities required: ability to 4.....
- Duties:
 - + Offer table service
 - + Look after 5.....
- Extra advantage: ability of the candidate to 6.....

- Benefits:
 - + free 7.....
 - + a 8..... will be provided

- Interview arranged for: 9.....at 10:00 am

- Need to take
 - + a reference letter from employer
 - + a bank statement
 - + the application form with a 10.....

SECTION 2

Question 11 - 12

Choose TWO letters, A-E.

Which TWO things are included in the price of the tour?

- A. garden gloves
- B. ladybugs
- C. bush timbering lessons
- D. food
- E. hummina birds

Questions 13 and 14

Choose TWO letters, A-E.

Which TWO facilities of Pine Garden are open today?

- A. plant care centre
- B. cafe
- C. gift shop
- D. model town
- E. tourist office

Questions 15-20

Choose SIX answers from the box and write the correct letter, A-H, next to questions 15-20.

- A. varieties of desert
- B. edible plants
- C. lawns and lawn alternatives
- D. native plants
- E. storing water
- F. plants attract wildlife
- G. unified design
- H. soil nutrients

- 15 Mary
- 16 Berson
- 17 Smith
- 18 Nunee
- 19 Scanlan
- 20 Mandelson

SECTION 3

Question 21 - 26

Choose the correct letter, A, B or C.

21 How could ancient Africans recognize different stars?

- A. by the location of the stars
- B. by the way stars affect each other

C. by the distance between two stars

22 In which way do the Weyaka people like to deal with their money?

- A. open bank accounts
- B. assist others
- C. lend money to others

23 What do the Africans obtain from their suffering?

- A. ways of protecting their environment
- B. approaches to improving their international status
- C. reasons of conquering drought

24 What are the local people concerned with?

- A. having enough food
- B. getting rid of disease
- C. going back to their former environment

25 What is the reason for the declining financial condition of the African people?

- A. They find it hard to trade because of the undeveloped transportation system.
- B. They have difficulty in mining minerals.
- C. They refuse to develop a range of commercial activities.

26 When can the African people expect to stop suffering from starvation?

- A. next year
- B. in the long-term future
- C. in the near future

Question 27 - 30

Complete the sentences below.

Write NO MORE THAN TWO WORDS for each answer.

- 27 A valuable quality of the Africans is to make up for the difficulties of food transportation.
- 28 The government intends to pay greater attention to their plan.
- 29 Nowadays, the Africans are encouraged to in an area consistently.
- 30 For the Weyaka people, it is impolite to visit someone's home without

SECTION 4

Complete the notes below.

Write NO MORE THAN TWO WORDS for each answer.

Animal Sense

Smell

- Dogs have a greater sense of smell than human beings and are able to tell.
- Some animals can smell odours such as 31.....recognised by the human nose.
- Some beetles can only distinguish the odours of certain plants.
- Bees, feeling threatened, will use their 32.....before they sting.
- Queen bees, which can sting multiple times, use their feet to keep 33.....over the colony.
- A female 34.....decides whether or not to mate with a male according to the quality of his scent.

Hearing

- Sound through vibrations can be recognized by beetles without ears by using their 35.....
- They can locate prey living in 36.....by tracking the vibrations.

Sight

- Snakes are able to search for food by detecting 37.....from the mouths of their prey.
- They can tell the 38.....of a mouse by detecting its heat.
- After its prey is killed, a snake stores food in its 39.....and hibernates.
- A snake that goes into a state of hibernation will not eat for a long period of time.
- The 40.....is calculated by snakes before hunting their prey.

TEST 4

SECTION 1

Complete the table below.

Write ONE WORD AND/OR A NUMBER for each answer.

NOTES ON CONCERTS

Example

What to order before start coffee

Type of Concerts	Time	Cost	Additional Information
1 concert	Every afternoon	2 \$ for students \$6.50 for adults	• Organise a press tent • Broadcast on the local 3 station
4 concert	Friday	Entrance fee: approx \$40	Decorate with 5
Opera show	6	Charged by 7	There will be a 8 performance
Karaoke night	Saturday	No group 9	To end the show, a popular 10 will perform

SECTION 2

Question 11 -16

Choose the correct letter, A, B or C.

11 What was Jill surprised to find?

- A. Some work to reduce the water usage to her house could be done soon.
- B. The house was poorly insulated.
- C. She could get financial help.

12 What does Jill say every family can do straight away?

- A. Use energy-saving bulbs.
- B. Turn down the thermostat.
- C. Turn off their appliances completely.

13 What pleased Jill about the energy provider?

- A. reduction in price for prompt payment
- B. allowing customers to pay online
- C. having a reduction in price of the energy-saving sources

14 What difficulty does Jill have with the energy meters?

- A. They are difficult to access.
- B. The figures are hard to read accurately.
- C. She can't tell whether they're for electricity or for gas.

15 What kind of energy-saving method is Jill going to take next?

- A. Use an energy-saving boiler.
- B. Have the walls checked for their insulation level.
- C. Install double-glazed windows.

16 Why is Jill doubtful about renewable energy?

- A. She thinks it's unsuitable for her house.
- B. She doesn't understand the technical details.
- C. She believes it's too expensive.

Question 17 - 18

Choose TWO letters, A-E.

Which TWO water-saving tips does Jill recommend?

- A. use more showers than baths
- B. keep the washing machine full before using it
- C. boil only as much water as you need
- D. turn off the taps while you are brushing your teeth
- E. repair leaking taps

Question 19 - 20

Choose TWO letters, A-E.

Which TWO topics do people most frequently ask about?

- A. the ideal temperature setting on the thermostat
- B. whether to leave the light on or not
- C. whether to use a computer or laptop to watch movies
- D. how to work out the operating cost of appliances
- E. whether solar panels only work on sunny days

SECTION 3

Questions 21-25

Choose the correct letter, A, B or C.

21 Students may fail the exam if they

- A. do not collect primary statistics.
- B. copy other people's work.
- C. do not follow the instructions.

22 Why does the man think they should avoid including the pictures of the first volcano in the presentation?

- A. They are not attractive.
- B. The time is limited.
- C. People have never heard of it.

23 About Mount Fago, a volcano in Mexico or the USA, the man thinks

- A. they should not use inaccurate information in the presentation.
- B. they should use another example.
- C. it does not matter where the volcano is.

24 The woman thinks they should mention Mount Etna since

- A. it covers most of the important points.
- B. It was formed a long time ago.
- C. it has stunning views.

25 They agree to leave out Mount Herton as

- A. other students have used it before.
- B. it is irrelevant to their topic.
- C. there is nothing special about this volcano.

Question 26 - 30

Which statement applies to each of the following situations?

Choose FIVE answers from the box and write the correct letter, A-G, next to questions 26-30.

- A. make a short film
- B. lacked his/her own points
- C. neglect the positive aspect
- D. watch some documentaries
- E. did not prepare beforehand
- F. identify the differences between them.

26 The woman's last presentation was criticized because it

27 The tutor suggests for the next presentation the woman should

28 People do not know enough about volcanoes and so they

29 The reason why the man felt very nervous is that he

30 They are researching active and extinct volcanoes to

SECTION 4

Complete the notes below.

Write NO MORE THAN TWO WORD ONLY for each answer.

A Chain Store in the UK

Initial expansion

- The company expanded by opening more 31.....to increase market share in England.
- They could raise capital by reducing the number of branches in southern 32.....

Consultation

- They closed the 33.....of the convenience stores in Oxford.
- Over 200 staff had to be transferred and 34.....
- A new brand image was established to focus on selling 35.....

The future way

- A 36.....was assigned to hold each discussion.
- Retail stores should be flexible in making 37.....
- Changes should be introduced in 38..... so that the staff can become accustomed to the new rules.

Conclusion

- Be open-minded about the 39.....for expansion they choose.
- Companies have saved costs by changing the structure of the 40.....of department stores.

TEST 5

SECTION 1

Complete the notes below.

Write ONE WORD AND/OR A NUMBER for each answer.

INCIDENT REPORT

Example

Name: Anna Lumley

Telephone: 1.....

Date of arrival: 2.....

Address: 235 3..... Road, East sea

The total value of insurance: \$ 4.....

Missing items:

- lamps and chairs (not expensive)
- furniture and 5.....
- a rocking horse, some 6..... and fruit bowls

Items ordered: - a clock

- a 7.....

Damaged items: - the 8..... needs to be replaced

- a 9..... of one of the dining chairs is split
- four 10..... were broken

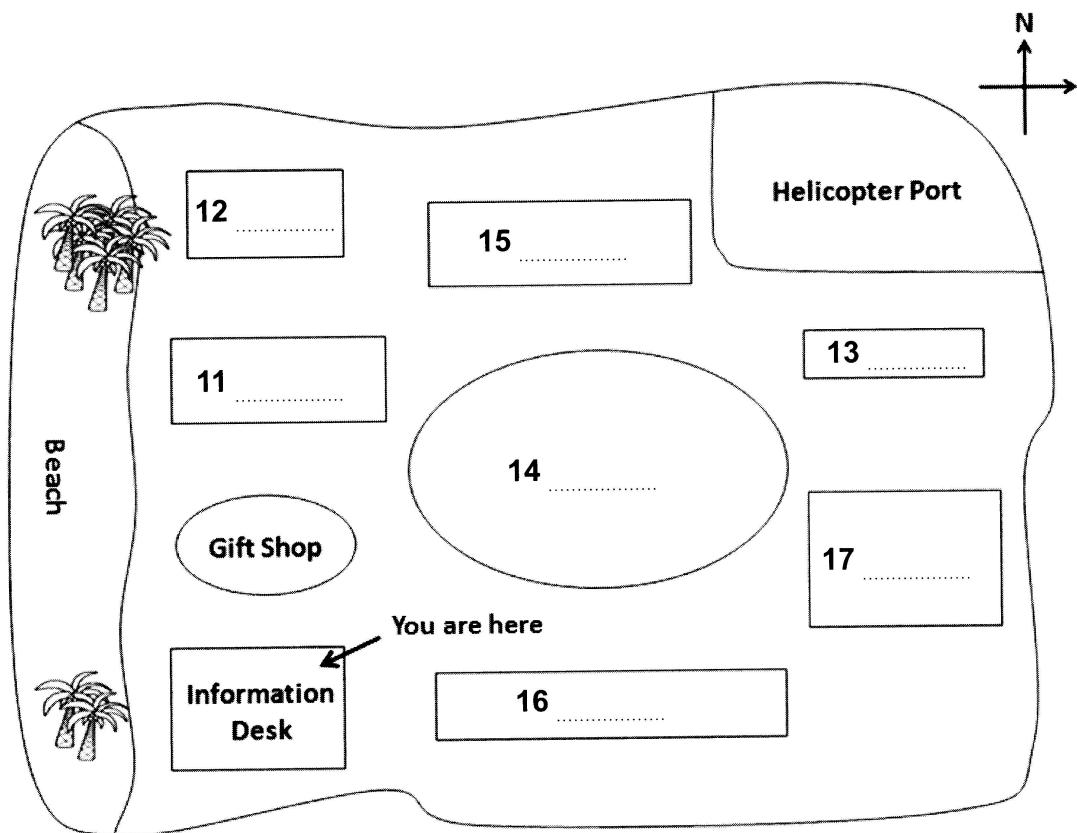
SECTION 2

Question 11 - 17

Label the plane below

Write NO MORE THAN TWO WORDS or each answers.

Mangrovetree Resort



Question 18 - 20

Choose the correct letter, A, B or C.

18 What kind of food does the restaurant serve every day?

- A. seafood
- B. barbecue
- C. vegetables

19 What is the feature of the Tiki room?

- A. It's best for newly-wed couples.
- B. It's suitable for families with children.

C. It's a good fit for business people.

20 What did the hotel win an award for recently?

- A. good service
- B. good facilities
- C. environmental protection

SECTION 3

Question 21 - 25

Choose the correct letter, A, B or

21 Why did James choose to work in the bakery?

- A. Because it's close to his home.
- B. Because it has a good reputation in the subject area.
- C. Because it's a part of a chain.

22 What was James surprised at in his studies?

- A. He finds the theoretical courses easy.
- B. He can finish the theoretical courses.
- C. He finds the theoretical work interesting.

23 How is James' course assessed in the first term?

- A. The marks are given by students to each other.
- B. Self-assessment.
- C. It is up to the practical experience.

24 Why has Kate enquired about the English language course?

- A. She wants to become an artist.
- B. It is her first language.
- C. She plans to curate in a gallery.

25 What else did Kate need to get before going to the college?

- A. starting date of the course
- B. an offer with scholarships
- C. a catalogue of modules

Questions 26-30

What statement applies to each of the following courses?

Choose FIVE answers from the box and write the correct letter, A-G, next to questions 26-30.

- A. There are a lot of background readings.
- B. People stay at the studio where the course is taken.
- C. Many outside speakers will give a talk.
- D. It's the most difficult course.
- E. Students do their own research.
- F. Students need to spend a lot of money on a camera with a good display.
- G. Expensive materials need to be bought.

26 History of Art

27 Sculpture

28 Digital Painting

29 Art Theory

30 Photography

SECTION 4

Complete the notes below.

Write NO MORE THAN TWO WORDS for each answer.

Birds in New Zealand

Facts

- The birds often build their nests along the coastline or next to the 31.....
- In 1984, researchers found that there were 32..... of this kind of bird left.
- It is difficult to 33..... the number of birds accurately.

Influencing factors

- Human activities, such as 34..... and building homes threaten the bird population.
- The birds are influenced by many species which can eat their 35.....
- Natural disasters like 36..... can also reduce the population of the birds.

Ways of protection

- The zoo should hire a 37..... to keep the birds from being poached
- The organizer could build 38..... to prevent the public from getting closer.
- People should make more of an effort to protect 39..... birds.
- Through the 40....., people will learn more about bird protection

TEST 6

SECTION 1

Complete the notes below.

Write NO MORE THAN TWO WORDS AND/OR A NUMBER

Office Rental

Example

Address: 21 North Avenue

- Type of company: 1.....

- Full name: Jonathan Smith

- Position: 2.....

- Location: near the 3.....
- No. of people: 30
- Preferred size of the area: 4..... ft²
- Requirements: 24-hour 5.....
6..... on ground floor
- Preferred facilities: a (an) 7..... to cook in
a (an) 8..... away from the workspace
- No. of power sockets Daily exercise: 40
- Daily exercise: a (an) 9.....
- unnecessary: 10.....
- Other requirements: WIFI
- Arrangement of viewing: 3 p.m on Thursday

SECTION 2

Questions 11-14

Choose the correct letter, A, B or C.

11 The reason why this island attracts so many tourists is that

- A. it's a good place to relax.
- B. the transport is very convenient.
- C. the ticket price is relatively low.

12 What is recommended to bring when you visit the island?

- A. a raincoat
- B. a sun umbrella
- C. a helmet

13 What is the most popular attraction at the resort?

- A. the rose garden
- B. the sunset
- C. the freshwater pond

14 What could possibly surprise visitors to the island?

- A. the size of the island
- B. a wide range of wildlife
- C. making new friends

Questions 15-20

What characteristic has been offered for each facility?

Choose SIX answers from the box and write the correct letter, A-G, next to questions

Characteristic

- A. old prison
- B. stunning view
- C. street art
- D. gallery
- E. gift shopping
- F. bird watching
- G. cycling
- H. maritime museum

Facility

- 15 tourist centre
- 16 mountain
- 17 small theatre
- 18 art museum
- 19 pond
- 20 ancient building

SECTION 3

Questions 21-24

What feature is there for each character in the novels?

Choose FOUR answers from the box and write the correct letter,

- A is deliberately cruel to other people.
- B acts with childish innocence.
- C resents previous events.
- D pays attention to appearance.
- E acts in a foolish way.
- F has insight into human nature.

- 21. Rosy
- 22. Flory
- 23. Lizzie
- 24. Estelle

Questions 25 and 26

Choose TWO letters, A-E.

What are the speakers' opinions about the literature lectures?

- A. They are too noisy for virtual learning.
- B. They are well structured.
- C. There is insufficient time for discussion.
- D. They always start punctually.
- E. They are too shy to take part in discussions.

Questions 27 and 28

Choose TWO letters, A-E.

What improvements can be made in the near future?

- A. enhancing IT support
- B. providing more computers
- C. finding a good librarian
- D. buying some new photocopying machines
- E. becoming a good group leader

Questions 29 and 30

Choose TWO letters, A-E.

What do the speakers think of the group discussions?

- A. The class is too large.
- B. It's easy to find time to meet.
- C. Group sizes are suitable.
- D. The class time is properly managed.
- E. They find that the class is very effective.

SECTION 4

Complete the notes below.

Write NO MORE THAN TWO WORDS for each answer.

History of Music in Britain

In the 18th century

- During the Industrial Revolution people moved to cities to work in the 31.....
- In the 1850s, the culture was influenced greatly by 32.....from different countries.
- Originally music reflected the work life of different 33.....in those days.
- Different songs were created in the same 34....., although people were from a variety of nations.
- The songs written by the workers during this period mainly came from their feelings about harsh 35.....
- Some small musical works were composed by people who were protesting against difficult living conditions.
- The musical trends were led by 36..... performers.

In the 19th century

- During this period, some musical groups had expanded their popularity among 37.....
- In the late 1870s, the 38..... came into contact with these flourishing musical traditions.
- Some music produced by these groups is still preserved in museums.

Nowadays

- These musical genres still exert an influence on 39.....culture.
- Enthusiastic fans are still collecting and keeping the 40..... of music from those days.

Test 7

SECTION 1

Write **NO MORE THAN THREE WORDS AND/OR A NUMBER** for each answer.

Wildlife Conservation Society

Application for membership

Example Caller's name:

Michael Jones

IELTS ACTUAL TESTS – READING & LISTENING ACADEMIC MODULE

Heard of WCS from: 1 _____	
Address:	21 Beel Street, Leeds
Postcode:	2 _____
Phone number:	01173 58642
E-mail address:	3 mj@_____
Length of membership: Type of membership: Fee:	4 _____ Years 5 _____ 6 £_____
Payment details:	direct debit
Name of bank:	7 _____
Account name:	Michael Jones
Account number:	01059612
Date of first payment:	8 _____
Reference number:	9 _____
Other requests:	-extra information pack -10 _____

SECTION 2

Question 11–18

Write **NO MORE THAN TWO WORDS AND/OR A NUMBER** for each answer.

Spring Festival

Event	Location	Date and Time	Other Information
Firework display	Near the 11_____	4 September 9 p.m.	Pack a 12_____ and blanket
Display of 13_____	Central Park	Daily	Buses run from the town centre every 14_____ minutes
The 15_____ Show	Exhibition Centre	10–15 September 9 a.m.–10 p.m.	
“Grow Your Imagination”	in the 16_____	11–19 September	
“Swing in Spring”	in the 17_____	17&18 September	Saturday matinee Performance at 18_____

Question 19 and 20

Choose the correct letter, A, B or C.

19 In the Spring Festival competition, you can win

A. a family pass to “Balloons Down Under” .

B. a cheque for \$200.

C. a flight in a hot air balloon.

20 You can get an entry form for the competition from

A. the radio station.

B. the newspaper.

C. the Festival's website

SECTION 3

Write **NO MORE THAN THREE WORDS** for each answer.

Archaeology Course

- Can be combined with any other subject except 21_____
- Has three 22_____ modules in first semester?

Module 1

Title: 23_____

Lecturer: Dr. Morris

Learning method: Lectures and practical sessions

Content: Based on processes

- recording
- 24_____
- interpretation
- display

Assessment: By 25_____

Module 2

Title: 26_____

Lecturer: Prof. Elliot

Content: 27_____ and development of built environments

Assessment: By 28_____ examination

Module 3

Title: Method and Science

Lecturer: Dr. Thompson

Content: Standard techniques in fieldwork and analysis

Learning method: 50% lab work, 50% 29_____

Site survey at end of module (the 30_____ is to be announced later)

SECTION 4

Questions 31–33

Choose the correct letter, A, B or C.

31 What impact does Marc Prensky believe that digital technology has had on young people?

- A. It has altered their thinking patterns.
- B. It has harmed their physical development.
- C. It has limited their brain capacity.

32 “Digital immigrants” tend to access computers

- A. using their native language.
- B. less efficiently than young people.
- C. for less important information.

33 What example is given of having a “digital accent” ?

- A. Having less effective typing skills.
- B. Doing things the old-fashioned way.
- C. Being unable to understand instructions.

Questions 34–40

Which theorist makes each of the following points?

Write the correct letter, A, B or C, next to questions 34–40.

Points made

34 Current teaching methods don't work _____

35 Many students don't understand computers. _____

36 Computer technology doesn't interest all students. _____

- 37 Students can still learn the traditional way. _____
- 38 Students still need to learn research skills. _____
- 39 We should use computer games to teach. _____
- 40 Computers can't replace educators. _____

Theorists

A Allen

B James

C Vander

Test 8

SECTION 1

Questions 1–5

Write no more than two words and/or a number for each answer.

Transport from Bayswater	
Example	Answer
Destination	Harbour City
• Express train leaves at 1_____	
• Nearest station is 2_____	
• Number 706 buss Goes to 3_____	
• Number 4_____ bus goes to station	
• Earlier bus leaves at 5_____	

Questions 6–10

Write no more than one word and/or a number for each answer.

Transport	Cash fare	Card fare
Bus	6\$ _____	\$1.50
Train(peak)	\$10	\$10
Train(off-peak) —before 5p.m. or after (7 _____ p.m.)	\$10	8\$ _____
9 _____ ferry	\$4.50	\$3.55
Tourist ferry (10 _____)	\$35	-
Tourist ferry (whole day)	\$65	-

SECTION 2**Questions 11–14**

Which counsellor should you see?

Write the correct letter, A, B or C, next to questions 11–14.

A Louise Bagshaw

B Tony Denby

C Naomi Flynn

- 11 If it is your first time seeing a counsellor.
- 12 If you are unable to see a counsellor during normal office hours.
- 13 If you do not have an appointment.
- 14 If your concerns are related to anxiety.

Questions 15-20

Write no more than two words for each answer.

Workshop	Content	Target group
Adjusting	what you need to succeed academically	15 _____ students
Getting Organised	use time effectively, find 16 _____ between study and leisure	all students
Communicating	talking with staff, communicating across cultures	all students, especially 17 _____
Anxiety	18 _____ .breathing techniques, meditation, etc.	students about to sit exams
19 _____	staying on track for long periods	20 _____ students only

SECTION 3

Questions 21–30

Write no more than three words for each answer.

Novel: 21 _____

Protagonists: Mary Lennox; Colin Craven

Time period: Early in 22 _____

Plot: Mary—>-UK — meets Colin who thinks he'll never be able to 23_____

They become friends.

Point of view: “Omniscient” — narrator knows all about characters’ feelings, opinions and 24_____.

Audience: Good for children— story simple to follow.

Symbols (physical items that represent 25_____):

- the robin redbreast

- 26 _____
- the portrait of Mistress Craven

Motifs (patterns in the story):

- the Garden of Eden
- secrecy — metaphorical and literal transition from 27 _____

Themes: Connections between

- 28 _____ and outlook
- 29 _____ and well-being
- individuals and the need for 30 _____

SECTION 4

Questions 31—35

Write one word only for each answer.

Time Perspectives		
Time Zone	Outlook	Features & Consequences
Past	Positive	Remember good time, e.g. birthdays. Keep family records, photo albums, etc.
	31_____	Focus on disappointments, failures, bad decisions.
Present	Hedonistic	Live for 32_____ ;seek sensation; avoid pain.
	Fatalistic	Life is governed by 33_____ .religious beliefs, social conditions. Life's path can't be changed.
Future	34_____	Prefer work to play. Don't give in to temptation.

	Fatalistic	Have a strong belief in life after death and importance of 35_____ in life.
--	------------	--

36 We are all present hedonists

A at school.

B at birth.

C while eating and drinking.

37 American boys drop out of school at a higher rate than girls because

A they need to be in control of the way they learn.

B they play video games instead of doing school work.

C they are not as intelligent as girls.

38 Present-orientated children

A do not realise present actions can have negative future effects.

B are unable to learn lessons from past mistakes.

C know what could happen if they do something bad, but do it anyway.

39 If Americans had an extra day per week, they would spend it

A working harder.

B building relationships.

C sharing family meals.

40 Understanding how people think about time can help us

A become more virtuous.

B work together better.

C identify careless or ambitious people.

Test 9

SECTION 1

Write ONE WORD AND/OR A NUMBER for each answer.

THEATRE ROYAL PLYMOUTH Booking Form

Example

Performance The Impostor

Date:	Saturday 1_____
Time:	2_____
Tickets:	three adults and one child
Seats in:	the 3_____
Seat row/number(s)	4_____
Method of delivery:	Post
Total payment:	£39
Card details:	
Type:	5_____
Number:	6_____
Name:	Mr.J. 7_____
Address:	8_____ Street. London

	9 _____
Additional requests:	put on the mailing list book 10_____

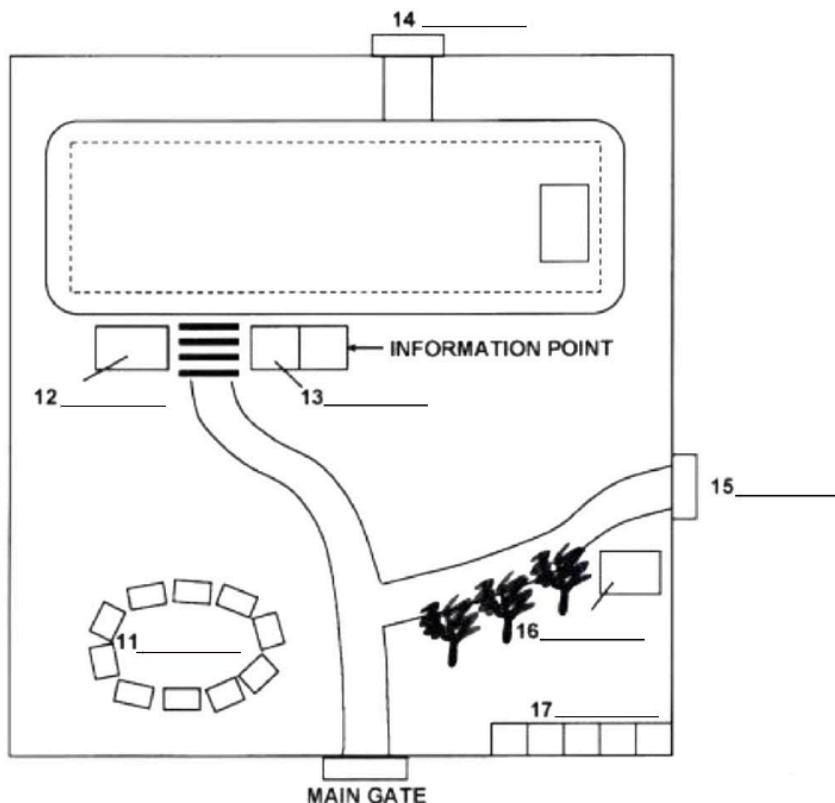
SECTION 2

Questions 11–17

Label the plan of the rock festival site below.

Choose SEVEN answers from the box and write the correct letter, A–I

- A art exhibition
- B band entrance
- C car park
- D craft fair
- E exhibitions' entrance
- F fringe stage
- G lock-up garages
- H main stage
- I restaurant



Question 18 - 20

Write **NO MORE THAN TWO WORDS** for each answer.

- 18 To show you are an official visitor, you have to wear the _____ provided
- 19 Car blocking paths could prevent access by _____ in an emergency.
- 20 To reclaim items from storage, you must show your _____.

SECTION 3

Questions 21—23

Which **THREE** factors does Marco's tutor advise him to consider when selecting a course?

A possibility of specialisation

B relevance to future career

C personal interest

D organization of course

E assessment methods

F range of topics

G reputation of lecturer

Questions 24–27

24 Why does Marco's tutor advise him to avoid the Team Management course?

A It will repeat work that Marco has already done.

B It is intended for students at a lower level than Marco.

C It may take too much time to do well.

25 Why does Marco want to do a dissertation?

A He thinks it will help his future career.

B He would like to do a detailed study.

C He has already done some work for it.

26 What does Marco's tutor think about the dissertation outline?

A The topic is too narrow to be useful.

B The available data may be unsuitable.

C The research plan is too complicated.

27 What does Marco decide to do about his dissertation?

A Contact potential interviewees.

B Change to another topic.

C Discuss it with Professor Briggs.

Questions 28–30

Write **NO MORE THAN TWO WORDS** for each answer.

Practical details

28 A first draft of the dissertation should be completed by the end of _____

29 The dissertation should be registered with the _____ of the department.

30 Marco should get a copy of the statistic software from the _____.

SECTION 4

Questions 31–33

Write **ONE WORD ONLY** for each answer.

The Tiger Shark

Origin of name: its dark bands

Size: 6.5 metres (maximum)

Preferred habitat: near to the 31_____

Typical food: other sea creatures but also
32_____ produced by humans

Paine Island area: studies show tiger sharks are mainly found here during
the 33_____ (when turtles are nesting)

Questions 34–38

Write **ONE WORD ONLY** for each answer.

Shark Tagging Process

Pieces of 34 _____ were attached to lines as bait

The lines were 35 _____ regularly.

The hooked shark was brought to the 36 _____ and secured.

The shark was measured and tagged, and tissue removed for research.

Large sharks: an acoustic tag was fitted or a 37 _____ was attached.

The shark was 38 _____ and could be tracked.

Questions 39 and 40

39 The purpose of the research was to understand the tiger sharks

A reproductive patterns.

B migration patterns.

C feeding patterns.

40 Observations showed that, in general, tiger sharks

A change depths frequently.

B usually avoid the surface of the water.

C often spend long periods on the ocean floor.

TEST 10**SECTION 1**

Write NO MORE THAN TWO WORDS AND/OR A NUMBER for each answer.

Student Accommodation		
Type	Cost	Contract
Example College: Single room	Standards 3276 per year Ensuite: 1_____ £per year (meals are not included)	36 weeks (Rooms not available during the 2_____)
3_____ Room with a family	£ 150 per week —all inclusive	Arrangements are 4_____
Private renting: Room in a share house or a 5_____	From £ 275 to £490 per month additional costs(for this year) • gas and electricity 6 £_____ per month approx. • 7_____ £9 • 8_____	6 months Need • 9_____ • two 10_____

SECTION 2**Questions 11–18**

11 The Heritage Clothes exhibition was put together by

A museum staff.

B local residents.

C clothing manufacturers.

12 The photographs show the clothes worn by

A their owners.

B professional models.

C design students.

13 The exhibition called Toys from the Past is

A displayed in a new gallery.

B on show for a limited time.

C aimed specially at children.

14 Visitors to Toys from the Past are recommended to

A play with the toy trains.

B look at all the dolls.

C see the board games.

15 The miniature toys have been

A made by the museum.

B bought by the museum.

C borrowed by the museum.

16 The biscuit factory made tins

A for people all over the world.

B of different shapes.

C for many famous people.

17 People's favourite biscuit used to be

A an unsweetened one.

B one covered in chocolate.

C one filled with cream.

18 The hands-on activity allows people to

- A make some biscuits.
- B taste some of the biscuits.
- C pack a biscuit tin.

Questions 19 and 20

Write NO MORE THAN TWO WORDS for each answer.

19 The gift shop is located beside the _____ on the ground floor.

20 Free _____ are available for visitors' belongings.

SECTION 3

Questions 21–24

Pacific tapa cloth

21 Pacific tapa cloth is different from other types of tapa cloth because it is

A the only tapa made today.

B better quality than others.

C put to a wider range of uses.

22 What does Helen say about the paper mulberry tree?

A It is also a source of food.

B It is not native to the Pacific.

C It can grow in any environment.

23 Why did Maori people of New Zealand stop making tapa?

- A They could not find the right trees in New Zealand.
- B They were introduced to other fabrics by the Europeans.
- C They found a better material for making fabric.

24 Large pieces of tapa are made from smaller pieces which are

- A stuck together.
- B woven together.
- C sewn together.

Questions 25–30

According to the speakers, what function has tapa cloth played in the following countries?

Functions

- A recreational
- B practical
- C spiritual
- D commercial

Countries

- 25 Samoa
- 26 Tonga
- 27 Cook Islands
- 28 Fiji

29 Tahiti

30 Tikopia

SECTION 4**Question 31 and 32**

31 Participants in the learner Persistence study were all drawn from the same

A age group.

B geographical area.

C socio-economic level.

32 The study showed that when starting their course, older students were most concerned about

A effects on their home life.

B implications for their future career.

C financial constraints.

Questions 33–37

Write ONE WORD ONLY for each answer.

Research findings

	Social and Environmental Factors	Other Factors	Personal Characteristics
First level of importance	Effective support	Perceived success in study	Enjoyment of a 33_____
Second level of importance	Positive experiences at	Good	Many 36_____

			in daily life
Third level of importance	Good interaction with the		Capacity for
38 _____	37 _____	No family problems	multi-tasking

Questions 38–40

Write NO MORE THAN TWO WORDS for each answer.

Recommendations

- Ask new students to complete questionnaires to gauge their level of
38 _____
- Train selected students to act as 39 _____
- Outside office hours, offer 40 _____ help.
- Follow up students who miss deadlines.

READING**TEST 1**
READING PASSAGE 1

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

The natural of Yawning

A. While fatigue, drowsiness or boredom easily bring on yawns, scientists are discovering there is more to yawning than most people think. Not much is known about why we yawn or if it serves any useful function. People have already learned that yawning can be infectious. “Contagious yawning” is the increase in likelihood that you will yawn after watching or hearing someone else yawn, but not much is known about the under-lying causes, and very little research has been done on the subject. However, scientists at the University of Albany, as well as the University of Leeds and the University of London have done some exploration.

B. It is commonly believed that people yawn as a result of being sleepy or tired because they need oxygen. However, the latest research shows that a yawn can help cool the brain and help it work more effectively, which is quite different from the popular belief that yawning promotes sleep and is a sign of tiredness. Dr. Andrew Gallup and his colleagues at the University of Albany in New York State said their experiments on 44 students showed that raising or lowering oxygen and carbon dioxide levels in the blood did not produce that reaction. In the study participants were shown videos of people laughing and yawning, and researchers counted how many times the volunteers responded to the “contagious yawns”. The researchers found that those who breathed through the nose rather than the mouth were less likely to yawn when watching a video of other people yawning. The same effect was found among those who held a cool pack to their forehead, whereas those who held a warm pack yawned while watching the video. Since yawning occurs when brain temperature rises, sending cool blood to the brain serves to maintain the best levels of mental efficiency.

C. Yawning is universal to humans and many animals. Cats, dogs and fish yawn just like humans do, but they yawn spontaneously. Only humans and chimpanzees, our closest relatives in the animal kingdom, have shown definite contagious yawning. Though much of yawning is due to suggestibility, sometimes people do not need to actually see a person yawn to involuntarily yawn themselves: hearing someone yawning or even reading about yawning can cause the same reaction.

D. However, contagious yawning goes beyond mere suggestibility. Recent studies show that contagious yawning is also related to our predisposition toward empathy—the ability to understand and connect with others’ emotional states. So empathy is important, sure, but how could it possibly be related to contagious yawning? Leave it up to psychologists at Leeds University in England to answer that. In their study, researchers selected 40 psychology students and 40 engineering students. Generally,

psychology students are more likely to feel empathy for others, while engineering students are thought to be concerned with objects and science. Each student was made to wait individually in a waiting room, along with an undercover assistant who yawned 10 times in as many minutes. The students were then administered an emotional quotient test: students were shown 40 images of eyes and asked what emotion each one displayed. The results of the test support the idea that contagious yawning is linked to empathy. The psychology students—whose future profession requires them to focus on others—yawned contagiously an average of 5.5 times in the waiting room and scored 28 out of 40 on the emotional test. The engineering students—who tend to focus on things like numbers and systems—yawned an average of 1.5 times and scored 25.5 out of 40 on the subsequent test. The difference doesn't sound like much, but researchers consider it significant. Strangely enough, women, who are generally considered more emotionally attuned, didn't score any higher than men.

E. Another study, led by Atsushi Senju, a cognitive researcher at the University of London, also sought to answer that question. People with autism disorder are considered to be developmentally impaired emotionally. Autistics have trouble connecting with others and find it difficult to feel empathy. Since autistics have difficulty feeling empathy, then they shouldn't be susceptible to contagious yawning. To find out, Senju and his colleagues placed 49 kids aged 7 to 15 in a room with a television. 24 of the test subjects had been diagnosed with autism spectrum disorder, the other 25 were non-autistic kids. The test subjects were shown short clips of people yawning as well as clips of people opening their mouths but not yawning. While the kids with autism had the same lack of reaction to both kinds of clips, the non-autistic kids yawned more after the clips of people yawning.

F. There also have been studies that suggest yawning, especially psychological “contagious” yawning, may have developed as a way of keeping a group of animals alert and bonding members of a group into a more unit one. If an animal is drowsy or bored, it may not be as alert as it should to be prepared to spring into action and its yawning is practically saying, “Hey, I need some rest, you stay awake”. Therefore, a contagious yawn could be an instinctual reaction to a signal from one member of the herd reminding the others to stay alert when danger comes. So the theory suggests evidence that yawning comes from the evolution of early humans to be ready to physically exert themselves at any given moment.

Question 1 - 5

Read paragraphs A—F. Which paragraph contains the following information?

NB You may use any letter more than once.

- 1 Humans' imaginations can cause yawning.
- 2 Research shows that yawning is closely related to occupations.
- 3 An overview of the latest research in yawning.
- 4 Yawning is used to regulate brain temperature.
- 5 Scientists discovered some evidence disproving the early understanding of yawning.

Questions 6 - 9

Match each of the following research results with the university which it comes from

NB You may use any letter more than once.

- A. University of Albany
- B. University of Leeds
- C. University of London

- 6 There is no gender difference in the cause of yawning.
- 7 People with certain disorders are less likely to be affected by other people yawning.
- 8 Yawning is associated with the way people breathe.
- 9 People who are trained to feel empathy for others are more likely to yawn than those who are untrained.

Questions 10 - 13

Complete the summary below.

Choose ONE WORD from the passage for each answer.

Write your answers in boxes 10-13 on your answer sheet.

Another theory shows that yawning is used for 10.....individuals into a tighter social unit. Alternatively, yawning can help increase alertness of group members in case 11 is close. For example, yawning signals that a member of the group needs some 12and requires the others to stay aware of the surrounding situation. This theory proves that yawning is only a spontaneous behaviour resulting from some part of a simple 13.....system in early humans.

READING PASSAGE 2

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

WATER TREATMENT 2 : REED BEB

In recent years, it has been shown that plants, more accurately roots, play a crucial part in purifying dirty water before it enters seas and rivers. In 15th-century Britain, dirty water was purified by passing through the wetlands. People began to realize that the “natural” way of water purification was effective. Nowadays subsurface flow wetlands (SSFW) are a common alternative in Europe for the treatment of wastewater in rural areas, Mainly in the last 10 to 12 years there has been a significant growth in the number and size of the systems in use. The conventional mechanism of water purification used in big cities where there are large volumes of water to be purified is inappropriate in rural areas.

The common reed has the ability to transfer oxygen from its leaves, down through its stem and rhizomes, and out via its root system. As a result of this action, a very high population of microorganisms occurs in the root system, in zones of aerobic, anoxic, and anaerobic conditions. As the waste water moves very slowly through the mass of reed roots, this liquid can be successfully treated. The reason why they are so effective is often because within the bed’s root sector, natural biological, physical and chemical processes interact with one another to degrade or remove a good range of pollutants.

Dirty water from households, farms and factories consume a lot of oxygen in the water, which will lead to the death of aquatic creatures. Several aquatic plants are

important in purifying water. They not only absorb carbon dioxide and release oxygen into the water, improving the environment for fish, but absorb nutrients from the water as well. Britain and the G.S. differ in their preference of plants to purify water. Bulrushes (*Scirpus spp.*) and rushes (*Juncus spp.*) are excellent water purifiers. They remove excess nutrients from the water as well as oil and bacteria such as *Escherichia coli* and *Salmonella*. However, algae grow freely in summer and die off in winter. Their remains foul the bottom of the pool.

Artificial reed beds purify water in both horizontal and downflow ways. The reeds succeed best when a dense layer of root hairs has formed. It takes three years for the roots to fully develop. Which type of wetland a certain country applies varies widely depending on the country in Europe and its main lines of development. Besides the development of horizontal or vertical flow wetlands for wastewater treatment, the use of wetlands for sludge treatment has been very successful in Europe. Some special design lines offer the retention of microbiological organisms in constructed wetlands, the treatment of agricultural wastewater, treatment of some kinds of industrial wastewater, and the control of diffuse pollution.

If the water is slightly polluted, a horizontal system is used. Horizontal-flow wetlands may be of two types: free-water surface-flow (FWF) or sub-surface water-flow (SSF). In the former the effluent flows freely above the sand/gravel bed in which the reeds etc. are planted; in the latter effluent passes through the sand/gravel bed. In FWF-type wetlands, effluent is treated by plant stems, leaves and rhizomes. Such FWF wetlands are densely planted and typically have water-depths of less than 0.4m. However, dense planting can limit the diffusion of oxygen into the water. These systems work particularly well for low strength effluents or effluents that have undergone some forms of pretreatment and play an invaluable role in tertiary treatment and the polishing of effluents. The horizontal reed flow system uses a long reed bed, where the liquid slowly flows horizontally through. The length of the reed bed is about 100 meters. The downside of horizontal reed beds is that they use up lots of land space and they do take quite a long time to produce clean water.

A vertical flow (downflow) reed bed is a sealed, gravel filled trench with reeds growing in it. The reeds in a downflow system are planted in a bed 60cm deep. In vertical flow reed beds, the wastewater is applied to the top of the reed bed, flows down through a rhizome zone with sludge as a substrate, then through a root zone with sand as a substrate, followed by a layer of gravel for drainage, and is collected in an under-

drainage system of large stones. The effluent flows onto the surface of the bed and percolates slowly through the different layers into an outlet pipe, which leads to a horizontal flow bed where it is cleaned by millions of bacteria, algae, fungi, and microorganisms that digest the waste, including sewage. There is no standing water so there should be no unpleasant smells.

Vertical flow reed bed systems are much more effective than horizontal flow reed-beds not only in reducing biochemical oxygen demanded (BOD) and suspended solids (SS) levels but also in reducing ammonia levels and eliminating smells. Usually considerably smaller than horizontal flow beds, they are capable of handling much stronger effluents which contain heavily polluted matters and have a longer lifetime value. A vertical reed bed system works more efficiently than a horizontal reed bed system, but it requires more management, and its reed beds are often operated for a few days then rested, so several beds and a distribution system are needed.

The natural way of water purification has many advantages over the conventional mechanism. The natural way requires less expenditure for installation, operation and maintenance. Besides, it looks attractive and can improve the surrounding landscape. Reed beds are natural habitats found in floodplains, waterlogged depressions and estuaries. The natural bed systems are a biologically proved, an environmentally friendly and visually unobtrusive way of treating wastewater, and have the extra virtue of frequently being better than mechanical wastewater treatment systems. Over the medium to long term reed bed systems are, in most cases, more cost effective to install than any other wastewater treatment. They are naturally environmentally sound protecting groundwater, dams, creeks, rivers and estuaries.

Questions 14 - 16

Do the following statements agree with the information given in Reading Passage 2?
In boxes 14-16 on your answer sheet, write

- | | |
|-----------|--|
| TRUE | if the statement agrees with the information |
| FALSE | if the statement contradicts the information |
| NOT GIVEN | if there is no information on this |

14 The reed bed system is a conventional method for water treatment in urban areas.

15 In the reed roots, there is a series of processes that help break down the pollutants.

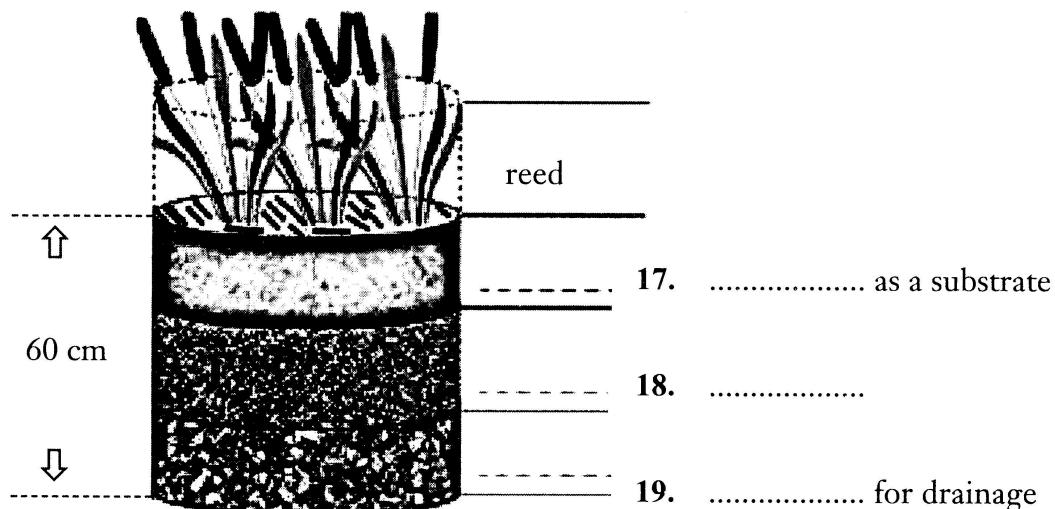
16 Escherichia coli is the most difficult bacteria to eliminate.

Questions 17-19

Complete the diagram below.

Choose NO MORE THAN THREE WORDS from the passage for each answer.

Downflow Reed Bed System



Question 20 - 24

Use the information in the passage to match the advantages and disadvantages of the two systems: horizontal flow system and down-flow system (listed A—H) below. Write the appropriate letters A-H in boxes 20-24 on your answer sheet.

The advantage of the downflow system is 20.....; however, 21 and 22.....The two advantages of the horizontal system are 23.....and 24.....In comparison with the downflow system, the horizontal system is less effective.

- A. it requires several beds
- B. it is easier to construct
- C. it builds on a gradient
- D. it doesn't need much attention

- E. it produces less sludges
- F. it isn't always working
- G. it needs deeper bed
- H. it can deal with more heavily polluted water

Questions 25-26

Choose two correct letters, from the following A, B, C, D or E.

Write your answers in boxes 25–26 on your answer sheet.

What are the TWO advantages of the natural water purification system mentioned in the passage:

- A. It uses micro-organisms
- B. It involves a low operating cost
- C. It prevents flooding.
- D. It is visually good-looking
- E. It can function in all climates

READING PASSAGE 3

History of telegraph in communication

Jean-Antoine Nollet was a French clergyman and physicist. In 1746 he gathered about two hundred monks into a circle about a mile (1.6 km) in circumference, with pieces of iron wire connecting them. He then discharged a battery of Leyden jars through the human chain and observed that each man reacted at substantially the same time to the electric shock, showing that the speed of electricity's propagation was very high. Given a more humane detection system, this could be a way of signaling over long distances. In 1748, Nollet invented one of the first electrometers, the electroscope, which detected the presence of an electric charge by using electrostatic attraction and repulsion.

After the introduction of the European semaphore lines in 1792, the world's desire to further its ability to communicate from a distance only grew. People wanted a way to send and receive news from remote locations so that they could better understand what was happening in the world around them—not just what was going on in their immediate town or city. This type of communication not only appealed to the media industry, but also to private individuals and companies who wished to stay in touch with contacts. In 1840 Charles Wheatstone from Britain, with William Cooke, obtained a new patent for a telegraphic arrangement. The new apparatus required only a single pair of wires, but the telegraph was still too costly for general purposes. In 1845, however, Cooke and Wheatstone succeeded in producing the single needle apparatus, which they patented, and from that time the electric telegraph became a practical instrument, soon adopted on all the railway lines of the country.

It was the European optical telegraph, or semaphore, that was the predecessor of the electrical recording telegraph that changed the history of communication forever. Building on the success of the optical telegraph, Samuel F. B. Morse completed a working version of the electrical recording telegraph, which only required a single wire to send code of dots and dashes. At first, it was imagined that only a few highly skilled encoders would be able to use it but it soon became clear that many people could become proficient in Morse code. A system of lines strung on telegraph poles began to spread in Europe and America.

In the 1840s and 1850s several individuals proposed or advocated construction of a telegraph cable across the Atlantic Ocean, including Edward Thornton and Alonzo Jackman. At that time there was no material available for cable insulation and the first breakthrough came with the discovery of a rubber-like latex called gutta percha. Introduced to Britain in 1843, gutta percha is the gum of a tree native to the Malay Peninsula and Malaysia. After the failure of their first cable in 1850, the British brothers John and Jacob Brett laid a successful submarine cable from Dover to Calais in 1851. This used two layers of gutta percha insulation and an armoured outer layer. With thin wire and thick insulation, it floated and had to be weighed down with lead pipe.

In the case of first submarine-cable telegraphy, there was the limitation of knowledge of how its electrical properties were affected by water. The voltage which may be impressed on the cable was limited to a definite value. Moreover, for certain reasons, the cable had an impedance associated with it at the sending end which could make

the voltage on the cable differ from the voltage applied to the sending-end apparatus. In fact, the cable was too big for a single boat, so two had to start in the middle of the Atlantic, join their cables and sail in opposite directions. Amazingly, the first official telegram to pass between two continents was a letter of congratulation from Queen Victoria of the United Kingdom to the President of the United States, James Buchanan, on August 16, 1858. However, signal quality declined rapidly, slowing transmission to an almost unusable speed and the cable was destroyed the following month.

To complete the link between England and Australia, John Pender formed the British-Australian Telegraph Company. The first stage was to lay a 557nm cable from Singapore to Batavia on the island of Java in 1870. It seemed likely that it would come ashore at the northern port of Darwin from where it might connect around the coast to Queensland and New South Wales. It was an undertaking more ambitious than spanning ocean. Flocks of sheep had to be driven with the 400 workers to provide food. They needed horses and bullock carts and, for the parched interior, camels. In the north, tropical rains left the teams flooded. In the centre, it seemed that they would die of thirst. One critical section in the red heart of Australia involved finding a route through the McDonnell mountain range and then finding water on the other side. The water was not only essential for the construction teams. There had to be telegraph repeater stations every few hundred miles to boost the signal and the staff obviously had to have a supply of water.

On August 22, 1872, the Northern and Southern sections of the Overland Telegraph Line were connected, uniting the Australian continent and within a few months, Australia was at last in direct contact with England via the submarine cable, too. This allowed the Australian Government to receive news from around the world almost instantaneously for the first time. It could cost several pounds to send a message and it might take several hours for it to reach its destination on the other side of the globe, but the world would never be the same again. The telegraph was the first form of communication over a great distance and was a landmark in human history.

Question 27 - 32

Do the following statements agree with the information given in Reading Passage In boxes 27-32 on your answer sheet, write

- TRUE if the statement agrees with the information
FALSE if the statement contradicts the information
NOT GIVEN if there is no information on this

- 27 In the research of the French scientist, metal lines were used to send messages.
- 28 People increasingly hoped to explore ways of long-distance communication in the late eighteenth century.
- 29 Using Morse Code to send message needed special personnel to first simplify the message,
- 30 Morse was a famous inventor before he invented the code.
- 31 Water was significant to early telegraph repeater stations on the continent.
- 32 The Australian Government offered funds for the first overland line across the continent.

Questions 33 - 40

Answer the questions below. Choose NO MORE THAN TWO WORDS from the passage for each answer.

Write your answers in boxes 33-40 on your answer sheet.

- 33 Why did Charles Wheatstone's telegraph system fail to come into common use in the beginning?
- 34 What material was used for insulating cable across the sea?
- 35 What was used by British pioneers to increase the weight of the cable in the sea?
- 36 What would occur in the submarine cable when the voltage was applied?
- 37 Who was a message first sent to across the Atlantic by the Queen?
- 38 What animals were used to carry the cable through desert?
- 39 What weather condition delayed construction in north Australia?
- 40 How long did it take to send a telegraph message from Australia to England in 1872?

TEST 2

READING PASSAGE 1

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

Bondi Beach

Bondi Beach is one of Australia's most well-known beaches and among the world's most famous. Bondi Beach is located in a suburb of Sydney, 7 kilometres east of the Sydney central business district. Bondi is said to be a corruption of an Aboriginal word boondi meaning water breaking over rocks. It has been spelt a number of different ways over time, e.g. Boondi, Bundi, Elundye. The Australian Museum records that Bondi means a place where a flight of nullas took place. The current spelling was accepted in 1827.

Aboriginal people occupied many sites in the area now known as Waverley in the period before European settlement. There were numerous recorded sightings during the early colonial period and there are significant aboriginal rock carvings, including rough carvings of fish or fishes on the cliffs. The indigenous people of the area, at the time of European settlement, have generally been referred to as the Sydney people or the Eora, which means "the people". There is no clear evidence for the name or names of the particular band or bands of the Eora that roamed what is now the Waverley area. A number of place names within Waverley, most famously Bondi, have been based on words derived from Aboriginal languages of the Sydney region.

Formal European settlement goes back to 1809, when the early road builder, William Roberts received a grant of 81 hectares from Governor Bligh, of what is now most of the business and residential area of Bondi Beach. In 1851, Edward Smith Hall and Francis O'Brien purchased 200 acres of the Bondi area that embraced almost the whole frontage of Bondi Beach. Between 1855 and 1877 O'Brien purchased Hall's share of the land, renamed the land the "O'Brien Estate", and made the beach and the surrounding land available to the public as a picnic ground and amusement resort. As the beach became increasingly popular, O'Brien threatened to stop public beach access. However, the Municipal Council believed that the Government needed to intervene to make the beach a public reserve. However it was not until June 9, 1882, that the NSW Government acted and Bondi Beach became a public beach.

In the early 1800s swimming at Sydney's beaches was a controversial pastime. In 1803, Governor Philip King forbade convicts from bathing in Sydney Harbour because of "the dangers of sharks and stingrays, and for reasons of decorum". But by the 1830s sea bathing was becoming a popular activity, despite being officially banned between 9:00 a.m. and 8:00 p.m.. During the 1900s these restrictive attitudes began to relax and the beach became associated with health, leisure and democracy. Bondi Beach was a working class suburb throughout most of the twentieth century with migrant people comprising the majority of the local population. The first tramway reached the beach in 1884 and the tram became the first public transportation in Bondi. As an alternative, this action changed the rule that only wealthy people could enjoy the beach. By the 1930s Bondi was drawing not only local visitors but also people from elsewhere in Australia and overseas.

The increasing popularity of sea bathing during the late 1800s and early 1900s raised concerns about public safety. In response, the world's first formally documented surf lifesaving club, the Bondi Surf Bathers' Life Saving Club was formed in February 1906, the first club house being a simple tent in the dunes. This was powerfully reinforced by the dramatic events of "Black Sunday" at Bondi in 1938. Some 35,000 people were on the beach and a large group of lifesavers were about to start a surf race when three freak waves hit the beach, sweeping hundreds of people out to sea. Lifesavers rescued 300 people, the largest mass rescue in the history of surf bathing.

Bondi Beach is the end point of the City to Surf Fun Run, the largest running event in the world, which is held each year in August. Australian surf carnivals further instilled this image. Particularly popular during the inter-War years and immediately after World War II, these displays of pageantry, discipline, strength and skill drew large crowds and even royal attention. A Royal Surf Carnival was held at Bondi Beach for Queen Elizabeth II during her first tour to Australia in 1954. In addition to many activities, Bondi Beach Market is open every Sunday. Many wealthy people spend Christmas Day at the beach. However, a shortage of houses occurs when lots of people rushed to the seaside. Manly is the seashore town which solved this problem. However, people still choose Bondi as their destination rather than Manly.

A commercial retail centre is separated from Bondi Beach by Campbell Parade, and Bondi Park, featuring many popular cafes, restaurants, and hotels, with views of the beach. The valley running down to the beach is famous over the world for its view of distinctive red tiled roofs. These architectural styles are deeply influenced by the

coastal towns in England. In the last decade, Bondi Beaches' unique position has seen a dramatic rise in svelte contemporary houses and apartments to take advantage of the views and scent of the sea. Bondi Beach hosted the beach volleyball competition at the 2000 Summer Olympics. A temporary 10,000-seat stadium, a much smaller stadium, 2 warm-up courts, and 3 training courts were set up to host the tournament and only stood for six weeks. The stadium had uncovered seating around three sides, and a partly covered stand on one side. Campaigners opposed both the social and environmental consequences of the development. "They're prepared to risk lives and risk the Bondi beach environment for the sake of eight days of volleyball", said Stephen Uniacke, a construction lawyer involved in the campaign. Other environmental concerns include the possibility that soil dredged up from below the sand will acidify when brought to the surface.

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 there is no information on this

- 1 Indigenous people learned rock carvings from the Europeans.
- 2 Bondi Beach was not a public gathering area at the beginning.
- 3 Sea bathing was considered to be beneficial for physical health during the early 1900s.
- 4 British coastal towns affect the building style in areas adjacent to Bondi Beach.
- 5 Bondi Beach was partly damaged due to the construction of the volleyball stadium.

Questions 6-9

Answer the questions below. Choose NO MORE THAN TWO WORDS AND / OR A NUMBER from the passage for each answer.

Write your answers in boxes 6—9 on your answer sheet.

- 6 Which public transport did people take to go to Bondi in the late 19th century?
- 7 When did British Royalty first go to Bondi?

- 8 What sort of Olympic sport was held in Bondi in 2000?
- 9 Apart from their social activities, what were local people worried might be ruined when the stadium was constructed?

Questions 10 - 13

Complete the summary below.

Choose NO MORE THAN TWO WORDS from the passage for each answer.

Write your answers in boxes 10–13 on your answer sheet.

There are all sorts of sport held at Bondi Beach every year, which attract lots of 10.....to go there on their vacations. However, the accommodation is not sufficient and the nearby city 11.....has become the supplementary. As a matter of fact, 12is still the best choice for residents. The buildings along the valley to Bondi are famous for their coloured 13.....and their European style.

READING PASSAGE 2

You should spend about 20 minutes on Questions, which are based on Re Passage 2 below.

Questions 14-18

Reading Passage 2 has seven paragraphs, A—G

Choose the correct heading for paragraph A, C—E and G from the list of headings below.

Write the correct number i—ix in boxes 14—18 on your answer sheet.

14. Paragraph A

Example Answer

Paragraph B iv

15. Paragraph C

16. Paragraph D

17. Paragraph E

Example	Answer
Paragraph F	V

18. Paragraph G

List of Headings

- i Remembering the past more clearly
- ii Bringing back painful memories
- iii Originally an alarm signal
- iv The physical effects of scent versus image
- v Checking unreliable evidence
- vi Reinforcing one sense with another
- vii Protection against reliving the past
- viii The overriding power of sight and sound
- ix Conflicting views

Follow your nose

A. Aromatherapy is the most widely used complementary therapy in the National Health Service, and doctors use it most often for treating dementia. For elderly patients who have difficulty interacting verbally, and to whom conventional medicine has little to offer, aromatherapy can bring benefits in terms of better sleep, improved motivation, and less disturbed behaviour. So the thinking goes. But last year, a systematic review of health care databases found almost no evidence that aromatherapy is effective in the treatment of dementia. Other findings suggest that aromatherapy works only if you believe it will. In fact, the only research that has unequivocally shown it to have an effect has been carried out on animals.

B. Behavioural studies have consistently shown that odours elicit emotional memories far more readily than other sensory cues. And earlier this year, Rachel Herz, of Brown University in Providence, Rhode Island, and colleagues peered into people's heads using functional Magnetic Resonance Imaging (fMRI) to corroborate that. They scanned the brains of five women while they either looked at a photo of a bottle of perfume that evoked a pleasant memory for them, or smelled that perfume. One woman, for instance, remembered how as a child living in Paris—she would watch

with excitement as her mother dressed to go out and sprayed herself with that perfume. The women themselves described the perfume as far more evocative than the photo, and Herz and co-workers found that the scent did indeed activate the amygdala and other brain regions associated with emotion processing far more strongly than the photograph. But the interesting thing was that the memory itself was no better recalled by the odour than by the picture. "People don't remember any more detail or with any more clarity when the memory is recalled with an odour," she says. "However, with the odour, you have this intense emotional feeling that's really visceral."

C. That's hardly surprising, Herz thinks, given how the brain has evolved. "The way I like to think about it is that emotion and olfaction are essentially the same thing," she says. "The part of the brain that controls emotion literally grew out of the part of the brain that controls smell." That, she says, probably explains why memories for odours that are associated with intense emotions are so strongly entrenched in us, because smell was initially a survival skill: a signal to approach or to avoid.

D. Eric Vermetten, a psychiatrist at the University of Utrecht in the Netherlands, says that doctors have long known about the potential of smells to act as traumatic reminders, but the evidence has been largely anecdotal. Last year, he and others set out to document it by describing three cases of post-traumatic stress disorder (PTSD) in which patients reported either that a certain smell triggered their flashbacks, or that a smell was a feature of the flashback itself. The researchers concluded that odours could be made use of in exposure therapy, or for reconditioning patients' fear responses.

E. After Vermetten presented his findings at a conference, doctors in the audience told him how they had turned this association around and put it to good use. PTSD patients often undergo group therapy, but the therapy itself can expose them to traumatic reminders. "Some clinicians put a strip of vanilla or a strong, pleasant, everyday odorant such as coffee under their patients' noses, so that they have this continuous olfactory stimulation," says Vermetten. So armed, the patients seem to be better protected against flashbacks. It's purely anecdotal, and nobody knows what's happening in the brain, says Vermetten, but it's possible that the neural pathways by which the odour elicits the pleasant, everyday memory override the fear-conditioned neural pathways that respond to verbal cues.

F. According to Herz, the therapeutic potential of odours could lie in their very unreliability. She has shown with her perfume-bottle experiment that they don't guarantee any better recall, even if the memories they elicit feel more real. And there's plenty of research to show that our noses can be tricked, because being predominantly visual and verbal creatures, we put more faith in those other modalities. In 2001, for instance, Gil Morrot, of the National Institute for Agronomic Research in Montpellier, tricked 54 oenology students by secretly colouring a white wine with an odourless red dye just before they were asked to describe the odours of a range of red and white wines. The students described the coloured wine using terms typically reserved for red wines. What's more, just like experts, they used terms alluding to the wine's redness and darkness—visual rather than olfactory qualities. Smell, the researchers concluded, cannot be separated from the other senses.

G. Last July, Jay Gottfried and Ray Dolan of the Wellcome Department of Imaging Neuroscience in London took that research a step further when they tested people's response times in naming an odour, either when presented with an image that was associated with the odour or one that was not. So, they asked them to sniff vanilla and simultaneously showed them either a picture of ice cream or of cheese, while scanning their brains in a fMRI machine. People named the smells faster when the picture showed something semantically related to them, and when that happened, a structure called the hippocampus was strongly activated. The researchers' interpretation was that the hippocampus plays a role in integrating information from the senses—information that the brain then uses to decide what it is perceiving.

Questions 19 - 24

Look at the following findings (Questions 19-24) and the list of researchers
 Match each finding with the correct researcher, A-D.
 Write the correct letter, A-D, in boxes 19-24 on your answer sheet.

NB You may use any letter more than once.

- 19 Smell can trigger images of horrible events.
- 20 Memory cannot get sharper by smell.
- 21 When people are given an odour and a picture of something to learn, they will respond more quickly in naming the smell because the stimulus is stronger when two or more senses are involved.

- 22 Pleasant smells counteract unpleasant recollections.
- 23 It is impossible to isolate smell from visual cues.
- 24 The part of brain that governs emotion is more stimulated by a smell than an image.
- A. Rachel Hertz
B. Eric Vermetten
C. Gil Morrot
D. Jay Gottfried and Ray Dolan

Questions 25 - 26

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

Write your answers in boxes 25-26 on your answer sheet.

- 25 In the article, what is the opinion about the conventional method of aromatherapy?

- A. Aromatherapy is the use of essential oils extracted from plants.
B. Evidence has proved that aromatherapy is effective in treating dementia.
C. People who feel aromatherapy is effective believe it is useful.
D. Aromatherapy is especially helpful for elderly patients.

- 26 What is Rachel Hertz's conclusion?

- A. The area of the brain which activates emotion has the same physiological structure as the part controlling olfaction.
B. We cannot depend on smell, and people have more confidence in sight and spoken or written words.
C. Odours can recall real memories even after the perfume-bottle experiment.
D. Smell has proved its therapeutic effect over a long time span.

READING PASSAGE 3

You should spend about 20 minutes on Passage 3 below.

Architecture in Britain

From the Middle Ages to the 20th century, what are the influences and movements that have shaped the changing face of British architecture?

Architecture is about evolution, not revolution. It used to be thought that once the Romans pulled out of Britain in the fifth century, their elegant villas, carefully-planned towns and engineering marvels like Hadrian's Wall simply fell into decay as British culture was plunged into the Dark Ages. It took the Norman Conquest of 1066 to bring back the light, and the Gothic cathedral-builders of the Middle Ages played an important part in the revival of British culture. However, the truth is not as simple as that. Romano-British culture—and that included architecture along with language, religion, political organisation and the arts—survived long after the Roman withdrawal. And although the Anglo-Saxons had a sophisticated building style of their own, little survives to bear witness to their achievements as the vast majority of Anglo-Saxon buildings were made of wood.

Even so, the period between the Norman landing at Pevensey in 1066 and the day in 1485 when Richard III lost his horse and his head at Bosworth, ushering in the Tudors and the Early Modern period, marks a rare flowering of British buildings. And it is all the more remarkable because the underlying ethos of medieval architecture was "fitness for purpose". The great cathedrals and parish churches that lifted up their towers to heaven were not only acts of devotion in stone; they were also fiercely functional buildings. Castles served their particular purpose and their battlements and turrets were for use rather than ornament. The rambling manor houses of the later Middle Ages, however, were primarily homes, their owners achieving respect and maintaining status by their hospitality and good lordship rather than the grandeur of their buildings. In a sense, the buildings of the 16th century were also governed by fitness for purpose—only now, the purpose was very different. In domestic architecture, in particular, buildings were used to display status and wealth.

This stately and curious workmanship showed itself in various ways. A greater sense of security led to more outward-looking buildings, as opposed to the medieval arrangement where the need for defence created houses that faced inward onto a courtyard or series of courtyards. This allowed for much more in the way of exterior ornament. The rooms themselves tended to be bigger and lighter—as an expensive commodity, the use of great expanses of glass was in itself a statement of wealth. There was also a general move towards balanced and symmetrical exteriors with central entrances. With the exception of Inigo Jones (1573-1652), whose confident handling of classical detail and proportion set him apart from all other architects of the period, most early 17th century buildings tended to take the innocent exuberance of late Tudor work one step further. But during the 1640s and 50s the Civil War and its aftermath sent many gentlemen and nobles to the Continent either to escape the fighting or, when the war was lost, to follow Charles II into exile. There they came into contact with French, Dutch and Italian architecture and, with Charles's restoration in 1660, there was a flurry of building activity as royalists reclaimed their property and built themselves houses reflecting the latest European trends. The British Baroque was a reassertion of authority, an expression of absolutist ideology by men who remembered a world turned upside down during the Civil War. The style is heavy and rich, sometimes overblown and melodramatic. The politics which underpin it are questionable, but its products are breathtaking.

The huge glass-and-iron Crystal Palace, designed by Joseph Paxton to house the Great Exhibition of 1851, shows another strand to 19th century architecture—one which embraced new industrial processes. But it wasn't long before even this confidence in progress came to be regarded with suspicion. Mass production resulted in buildings and furnishings that were too perfect, as the individual craftsman no longer had a major role in their creation. Railing against the dehumanising effects of industrialisation, reformers like John Ruskin and William Morris made a concerted effort to return to hand-crafted, pre-industrial manufacturing techniques. Morris's influence grew from the production of furniture and textiles, until by the 1880s a generation of principled young architects was following his call for good, honest construction.

The most important trends in early 20th century architecture simply passed Britain by. Whilst Gropius was working on cold, hard expanses of glass, and Le Corbusier was experimenting with the use of reinforced concrete frames, we had staid establishment architects like Edwin Lutyens producing Neo-Georgian and Renaissance country

houses for an outmoded landed class. In addition there were slightly batty architect-craftsmen, the heirs of William Morris, still trying to turn the clock back to before the Industrial Revolution by making chairs and spurning new technology. Only a handful of Modern Movement buildings of any real merit were produced here during the 1920s and 1930s, and most of these were the work of foreign architects such as Serge Chermayeff, Berthold Lubetkin and Erno Goldfinger who had settled in this country.

After the Second World War the situation began to change. The Modern Movement's belief in progress and the future struck a chord with the mood of post-war Britain and, as reconstruction began under Attlee's Labour government in 1945, there was a desperate need for cheap housing which could be produced quickly. The use of prefabricated elements, metal frames, concrete cladding and the absence of decoration—all of which had been embraced by Modernists abroad and viewed with suspicion by the British—were adopted to varying degrees for housing developments and schools. Local authorities, charged with the task of rebuilding city centres, became important patrons of architecture. This represented a shift away from the private individuals who had dominated the architectural scene for centuries.

Since the War it has been corporate bodies like these local authorities, together with national and multinational companies, and large educational institutions, which have dominated British architecture. By the late 1980s the Modern Movement, unfairly blamed for the social experiments implicit in high-rise housing, had lost out to irony and spectacle in the shape of post-modernism, with its cheerful borrowings from anywhere and any period. But now, in the new Millennium, even post-modernism is showing signs of age. What comes next?

Questions 27 - 31

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

Write your answers in boxes 27—31 on your answer sheet.

27 After Romans left Britain,

- A. their achievements were neglected.
- B. their cultural legacy endured.
- C. there was an abrupt culture change.
- D. their buildings were well protected.

28 Medieval architecture aspired all above to be

- A. immense.
- B. useful.
- C. decorative.
- D. durable.

29 Which of the following architectural features characterize the 16th-century architecture in Britain?

- A. They faced inward.
- B. They had plain exteriors.
- C. They had small windows.
- D. They used symmetry in architecture.

30 How did the 17th-century British buildings come to be influenced by styles from continental Europe?

- A. Fugitives brought ideas from continental Europe back to Britain.
- B. British craftsmen went to work in other countries.
- C. Monarchs encouraged cultural contact with other countries.
- D. Buildings were restored by architects in European countries.

31 What drove building designs after the Second World War?

- A. Conservatism
- B. a housing shortage
- C. foreign architecture
- D. wealthy patronage

Questions 32 - 40

Complete the sentences below.

Choose NO MORE THAN THREE WORDS from the passage for each answer.

Write your answers in boxes 32-40 on your answer sheet.

- 32 Because most Anglo-Saxon buildings were constructed from....., few of them have survived.
- 33 The owners of medieval manor houses in Britain earned their reputation through their.....and elegance.
- 34 The 16th-century building was designed to show evidence of..... and
- 35 In the 16th century, the use of glass was fashionable, even though it was an.....
- 36 Indigo Jones was particularly skilful in designing architecture in the..... style.
- 37 Though William Morris designed..... and..... , his emphasis on hand-crafting influenced architects.
- 38 In the early 20th century, architects like.....were producing conservative designs.
- 39 Before the Second World War, modern movement buildings in Britain were mainly designed by.....
- 40 After the Second World War, much architecture was commissioned by..... rather than private individuals.

TEST 3

READING PASSAGE 1

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

Bovid

A bovid is any member of almost 140 species of ungulates belonging to the family Bovidae. The bovids are the largest family of hoofed mammals and are native to Africa, Europe, Asia, and North America. Members include antelope, bison, buffalo, cattle, sheep and goats. Bovids have mutually beneficial symbiotic relationships with bacteria and other microorganisms that allow the digestion of cellulose, the most abundant form of living terrestrial biomass, but one that is indigestible for many animals, including humans.

Bovids are not so common in endemic insular faunas and are mainly recorded in Southeast Asia, Japan and some Mediterranean islands. By the late Miocene, the bovids rapidly diversified, leading to the creation of 70 new genera. This late Miocene radiation was partly because most bovids became adapted to more open, grassland habitats. Some species of bovid are solitary, but others live in large groups with complex social structures.

All bovids have the similar basic form—a snout with a blunt end, one or more pairs of horns immediately after the oval or pointed ears, a distinct neck and a tail varying in length and bushiness among the species. However, the bovids show great variation in size: the gaur can weigh as much as 1,000kg and stands 2-3m high at the shoulder. The royal antelope, at the opposite extreme, is only 25cm tall and weighs at most 3kg.

Despite differences in size and appearance, bovids are united by the possession of certain common features. Being ruminants, the stomach is composed of four chambers: the rumen (80%), the omasum, the reticulum, and the abomasum. Bovids retain undigested food in their stomachs to be regurgitated and chewed again as necessary. Bovids are almost exclusively herbivorous. Most bovids bear 30 to 32 teeth. While the upper incisors are absent, the upper canines are either reduced or absent. Instead of the upper incisors, bovids have a thick and tough layer of tissue, called the dental pad, which provides a surface to grip grasses and foliage. All bovids have four toes on each foot—they walk on the central two (the hooves), while the outer two (the dewclaws) are much smaller and rarely touch the ground. Bovid horns vary in shape and size: the relatively simple horns of a large Indian buffalo may measure around 4m from tip to tip along the outer curve, while the various gazelles have horns with a variety of elegant curves.

Bovids are the largest of 10 extant families within Artiodactyla, consisting of more than 140 extant and 300 extinct species. Fossil evidence suggests five distinct subfamilies: Bovinae (bison, buffalos, cattle, and relatives), Antelope (addax, oryxes, roan antelopes and relatives), Caprinae (chamois, goats, sheep, and relatives), Cephalophinae (duikers), and Antilocapridae (pronghorn). Unlike most other bovids, Bovinae species are all non-territorial. As the ancestors of the various species of domestic cattle, banteng, gaur, yak and water buffalo are generally rare and endangered in the wild, while another ancestor, auroch, has been extinct in the wild for nearly 300 years.

Antelope is not a cladistic or taxonomically defined group. The term is used to describe all members of the family Bovidae that do not fall under the category of , cattle, or goats. Not surprisingly for animals with long, slender yet powerful legs, many antelopes have long strides and can run fast. There are two main sub-groups of antelope: Hippotraginae, which includes the oryx and the addax, and Antilopinae, which generally contains slighter and more graceful animals such as gazelle and the springbok. The antelope is found in a wide range of habitats, typically woodland, forest, savannah, grassland plains, and marshes. Several species of antelope have adapted to living in the mountains and rocky outcrops and a couple of species of antelope are even semi-aquatic and these antelope live in swamps, for instance, the sitatunga has long, splayed hooves that enable it to walk freely and rapidly on swampy ground.

Subfamily Caprinae consists of mostly medium-sized bovids. Its members are commonly referred to as the sheep and the goat, together with various relatives such as the goral and the tahr. The group did not reach its greatest diversity until the recent ice ages, when many of its members became specialised for marginal, often extreme, environments: mountains, deserts, and the subarctic region. Barbary and bighorn sheep have been found in arid deserts, while Rocky Mountain sheep survive high up in mountains and musk oxen in arctic tundra.

The duiker, belonging to Cephalophinae sub-family is a small to medium-sized species, brown in colour, and native to sub-Saharan Africa. Duikers are primarily browsers rather than grazers, eating leaves, shoots, seeds, fruit buds and bark. Some duikers consume insects and carrion (dead animal carcasses) from time to time and even manage to capture rodents or small birds.

The pronghorn is the only living member of the sub-family Antilocapridae in North America. Each "horn" of the pronghorn is composed of a slender, laterally flattened blade of bone that grows from the frontal bones of the skull, forming a permanent core. Unlike the horns of the family Bovidae, the horn sheaths of the pronghorn are branched, each sheath possessing a forward-pointing tine (hence the name pronghorn). The pronghorn is the fastest land mammal in the Western Hemisphere, being built for maximum predator evasion through running. Additionally, pronghorn hooves have two long, cushioned, pointed toes which help absorb shock when running at high speeds.

Questions 1 -3

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

Write your answers in boxes 1-3 on your answer sheet.

1 Bovids mostly inhabit

- A. Africa.
- B. Eurasia.
- C. Southeast Asia.
- D. South America.

2 What are the most favorable locations for the existence of bovids?

- A. tropical forests
- B. wetlands
- C. mountains
- D. open grassy areas

3 What is the common feature of idle bovid species?

- A. Their horns are short.
- B. They store food in the body.
- C. They have upper incisors.
- D. Their hooves are undivided.

Questions 4 - 8

Look at the following characteristics (Questions and the list of sub-families below).

Match each characteristics with the correct ;

Write the correct letter, A-D, in boxes 4-8 on your answer sheet.

NB You may use any letter more than once.

4 can survive in harsh habitats.

5 move at a high speed.

6 origins of modern ox and cow.

7 does not defend a particular area of land.

8 sometimes take small animals as their food supply.

- A. Bovinae
- B. Antelope
- C. Caprinae
- D. Cephalophinae

Questions 9-13

Answer the questions below. Choose NO MORE THAN THREE WORDS from the passage for each answer.

Write your answers in boxes 9-13 on your answer sheet.

- 9 What is the smallest species of Bovids?
- 10 Which member of Bovinae has died out?
- 11 What helps sitatunga move quickly on swampy lands?
- 12 Where can Barbary sheep survive?
- 13 What is the only survivor of Antilocapridae?

READING PASSAGE 2

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

The contribution of language to business

People say that business is all about relationships, but the truth is that business is really all about language communication. Languages make either a direct or indirect contribution to business and industry—from acquiring and retaining customers to improving employee engagement and performance. At the most fundamental level, business cannot happen without communication. This is even more true in the era of globalization. As geographic borders become porous and the world flattens, effective communication with customers, employees, partners, suppliers, and other stakeholders across the globe becomes essential to successfully running a company.

There is no universal agreement on how significant the language factor is; nor the degree of language proficiency in contribution to the success of business and industry. In large modern enterprises, people have the unique experience of working with thousands of organizations across different industries and sectors that are tackling this very problem. Companies adjust to these demographic, cultural, and economic trends and proactively build workforces with the skills and capabilities needed to grow and thrive in this multicultural and international economy. Although the combination of business functions and processes impacted by improved communication may vary from company to company, language skills consistently deliver tangible business value and results for organizations that invest in language training.

Although English is dominant for international transactions, many business people also think and deal in scores of languages. Companies that operate solely in English will miss opportunities to capitalize on the explosive growth in developing and untapped markets at home and abroad. These companies also run the risk of misunderstandings with customers, and with members of an increasingly global workforce. Moreover, travellers on business need to have different levels of language proficiency. On a basic level, they are able to use the language at the airport and to check in at the hotel. Besides, they need a high language proficiency to deal with workers at their offshore factories.

One of the biggest business advantages of a workforce that can effectively communicate in more than one language is the ability to reach new markets—both at home and abroad. On the domestic side, for example, the U.S. has become even more of a melting pot than in the past, with minorities accounting for a greater proportion of the total population. Accordingly, in domestic venues, the consumer contacts and service activities also ask for workers with good skills of different languages, such as at restaurants or in duty-free stores.

The language proficiency needed to hold a conversation is quite different from that needed for negotiating. Receptionists and telephonists are the first point of contact between firms. The language proficiency they need is to gather basic factual information. Yet negotiating well in another language is one of the most difficult skills, especially nowadays when it is often done at a distance by videoconference, teleconference or email. It is also one of the most important things to do well, with usually a clear financial penalty for doing it badly. To really master the negotiating skill,

negotiators need a thorough understanding of the very many phrases they might hear during a negotiation and an ability to show fine shades in meaning in their own contributions. Similar to negotiating, certain occupations like shipping, also require unbroken and detailed communication between officials.

When it comes to negotiation, the interpreters and translators are needed. Interpreters and translators aid communication by converting messages or text from one language into another language. Although some people do both, interpreting and translating are different professions: interpreters work with spoken communication, and translators work with written communication. The selection of interpreters and translators is critical. Both the loyalty and accuracy of the interpreters and translators must be put at the top of agenda. Thus, loyalty to the speaker and the original appears to be a hallmark of professionals more so than of amateurs.

Who can judge the performance of the interpreters? A person with language proficiency is needed in the negotiating team to check on the interpreters, guaranteeing the quality and accuracy of the interpretation. Listeners are presumably listening only to the output and as such not aware of the structure of the source speech. Only an experienced expert will understand the constraints of any given situation and be in a position to judge. Only she (or he) can assess just how the speed, density and complexity of the speech will affect interpretation in any particular language combination. And even this task is not easy: interpreters are trained to listen and speak at the same time, not to listen to two different audio streams. Therefore, the check-on is best accomplished by those trained to teach or with enough experience to have mastered this skill.

Businesses may ask help from local consultants who are responsible for hiring local workers or train company managers to deal with local consumers. That was the case with CommScope, a multibillion dollar telecom equipment manufacturer with customers, employees, and partners in 18 countries across the world. In the wake of these transactions, the company began offering Jacqueline K. Crofton, a local resident, language training to key employees and executives. The goal of the training was not to make employees fluent in the new language, as much as to give them a degree of functional proficiency. “In order to advance well in new markets and with new customers, we had to be able to at least understand and communicate at a basic level, even with the use of interpreters,” says David Hartsoe, manager of CommScope’s

Global Learning Center. In the long run, effective communication will definitely help their employees stay positive and productive.

Questions 14 - 19

Do the following statements agree with the views of the writer in Reading Passage 2?
In boxes 14-19 on your answer sheet, write

- YES if the statement agrees with the views of the writer
NO if the statement contradicts the views of the writer
NOT GIVEN if it is impossible to say that the writer thinks about this

- 14 There are two types of contribution that languages make to business.
- 15 All businesses have recognized the importance of language to business.
- 16 English is the most important language for all business purposes.
- 17 Senior executives, especially, need to be fluent in the language of their trading partners.
- 18 Travellers on business need several different levels of language proficiency.
- 19 Some businesses provide interpreter training to their employees.

Questions 20-23

Answer the questions below. Choose NO MORE THAN THREE WORDS from the passage for each answer.

Write your answers in boxes 20—23 on your answer sheet.

- 20 What level of language proficiency are the workers required in the duty-free stores?
- 21 Who are the first people the client usually have contact with in business?
- 22 Which industry is high language proficiency essential to?
- 23 What business are interpreters and translators needed for?

Questions 24 - 26

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

Write your answers in boxes 24-26 on your answer sheet.

24 One of the most important qualities of the interpreter is

- A. common sense.
- B. industry knowledge and contacts.
- C. appropriate reaction.
- D. trustworthiness.

25 A qualified interpreter is essential to the business for

- A. ensuring cultural appropriateness.
- B. accuracy of information.
- C. success in trading.
- D. financial reasons.

26 In the writer's opinion, hiring an indigenous person to improve the dialect language proficiency of the company staff is

- A. unethical.
- B. unlikely.
- C. sensible.
- D. expensive.

READING PASSAGE 3

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

Agricultural and tourism

A. Agricultural tourism is a worldwide trend which offers city dwellers a chance to escape urban concrete and re-discover their rural roots. In addition, visiting farmers, agronomists and other agricultural experts can evaluate worldwide developments in agriculture, which have been greatly influenced by modern technology. Agriculture and tourism—two of Wisconsin's most important industries—are teaming up in southwestern Wisconsin. A pilot project has found that tourists, rural communities,

and some farmers could benefit from stronger efforts to promote and market agricultural tourism there. More than one-half of those surveyed responded favourably to a proposed tour, saying they would be interested in participating in some types of agricultural tour in southwestern Wisconsin.

B. In 1990, agricultural tourism project members surveyed 290 visitors to the annual Monroe Cheese Festival and 164 visitors to the Picnic on the Farm, a one-time event held in Platteville in conjunction with the Chicago Bears summer training camp. Survey respondents reported that they would prefer to visit cheese factories, sausage processing plants, dairy farms, and historical farm sites, as well as enjoy an old-fashioned picnic dinner. The study also found strong interest in visiting specialty farms (strawberries, cranberries, poultry, etc.). More than 75 percent of the Cheese Day visitors planned ahead for the trip, with 37 percent planning at least two months in advance. More than 40 percent of the visitors came to Monroe for two- or three-day visits. Many stopped at other communities on their way to Cheese Days. Visitors at both events indicated that they were there to enjoy themselves and were willing to spend money on food and arts and crafts. They also wanted the opportunity to experience the “country” while there.

C. The study found that planning around existing events should take into account what brought visitors to the area and provide additional attractions that will appeal to them. For example, visitors to Cheese Days said they were on a holiday and appeared to be more open to various tour proposals. Picnic visitors came specifically to see the Chicago Bears practice. They showed less interest in a proposed agricultural tour than Cheese Day visitors, but more interest in a picnic dinner. (The table below results from the 1990 survey of Monroe Cheese Days and Picnic on the Farm visitors and shows how the visitors would rank various activities in the proposed tour.)

Interest in specific activities in proposed tour

Activity	Cheese Days (Rank)	Picnic (Rank)
Cheese Factory Visit	1	2
Sausage Processing Visit	2	2
Dairy Farm Visit	3	5
Picnic Dinner	3	1

Historical Farm Visit	3	3
Crop Farm Visit	4	6

D. Agricultural tourism can serve to educate urban tourists about the problems and challenges facing farmers, says Andy Lewis, Grant county community development agent. While agriculture is vital to Wisconsin, more and more urban folk are becoming isolated from the industry. In fact, Lewis notes, farmers are just as interested in the educational aspects of agricultural tours as they are in any financial returns. “Farmers feel that urban consumers are out of touch with farming,” Lewis says. “If tourists can be educated on issues that concern farmers, those visits could lead to policies more favourable to agriculture.” Animal rights and the environment are examples of two issues that concern both urban consumers and farmers. Farm tours could help consumers get the farmer’s perspective on these issues, Lewis notes.

E. Several Wisconsin farms already offer some types of learning experience for tourists. However, most agricultural tourism enterprises currently market their businesses independently, leading to a lack of a concerted effort to promote agricultural tourism as an industry. Lewis is conducting the study with Jean Murphy, assistant community development agent. Other participants include UW-Platteville Agricultural Economist Bob Acton, the Center for Integrated Agricultural Systems, UW-Extension Recreation Resources Center, the Wisconsin Rural Development Center, and Hidden Valleys, a Southwestern Wisconsin regional tourism organization.

F. This past fall, Murphy organized several workshops with some Green and Grant County farmers, local business leaders, and motor coach tour operators to discuss how best to organize and put on farm tours. Committees were formed to look at the following: tour site evaluations, inventory of the area’s resources, tour marketing, and familiarization of tours. The fourth committee is organizing tours for people such as tour bus guides and local reporters to help better educate them about agricultural tourism. Green County farmers already have experience hosting visitors during the annual Monroe Cheese Days. Green county Tourism Director Larry Lindgren says these farmers are set to go ahead with more formal agricultural tours next year. The tours will combine a farm visit with a visit to a local cheese factory and a picnic lunch.

G. Another farm interested in hosting an organized tour is Sinsinawa, a 200-acre Grant County farm devoted to sustainable agriculture and run by the Dominican Sisters.

Education plays a major role at the farm, which has an orchard, dairy and beef cows, and hogs. Farm tours could be combined with other activities in the area such as trips to the Mississippi River and/or visits to historical towns or landmarks, Lewis says. The project will help expose farmers to the tourism industry and farm vacations as a way to possibly supplement incomes, he adds. While farm families probably wouldn't make a lot of money through farm tours, they would be compensated for their time, says Lewis. Farmers could earn additional income through the sale of farm products, crafts, and recreational activities.

Questions 27 - 30

Reading Passage 3 has seven paragraphs A-G.

Which paragraph contains the following information?

Write the correct letter A—G in boxes 27-30 on your answer sheet.

- 27 Nearly half of all the surveyed tourists would spend several days in Monroe.
- 28 Most visitors responded positively to a survey project on farm tours.
- 29 Cooperation across organisations in research for agriculture tours has been carried out.
- 30 Agriculture tours help tourists understand more about zoological and ecological issues.

Questions 31-35

Which of the following statements belongs to the visitor categories in the box?

Please choose A, B or C for each statement.

Write the correct letter A, B or C, in boxes 31-35 on your answer sheet.

NB You may use any letter more than once

- A. Cheese Festival visitors
- B. Picnic visitors
- C. Both of them

- 31 have a focused destination.
- 32 majority prepare well before going beforehand.
- 33 were comparably less keen on picnic meals.
- 34 show interest in activities such as visiting factories and fruit farms.

35 are willing to accept a variety of tour recommendations.

Questions 36 - 40

Complete the following summary of the paragraphs of Reading Passage 3, using the list of words, A-K, below.

Write the correct letter, A-K, in boxes 36-40 on your answer sheet.

Through farm tours, visitors can better understand significant issues such as 36..... and the environment. In autumn, Murphy organized 37.....and brought other participants together to develop the local tour market. Larry Lindgren said that the farmers already had experience of organising farm tours that also included a visit to the factory and a 38.....Sinsinawa, a large farm, which is managed and operated by 39....., contains an orchard, cows, etc. Lewis said the project would probably bring extra 40.....for local farmers.

- A. urban consumers
- B. workshops
- C. community development
- D. income
- E. animal rights
- F. picnic
- G. Dominican Sisters
- H. historical towns
- I. Andy Lewis
- J. vacations
- K. dairy

TEST 4

READING PASSAGE 1

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

The Pearl

A. Long known as the “Queen of Gems”, pearls possess a history and allure far beyond what today's wearer may recognize. Throughout much of recorded history, a natural pearl necklace comprised of matched spheres was a treasure of almost incomparable value, in fact the most expensive jewelry in the world. Before the creation of cultured pearls in the early 1900s, natural pearls were so rare and expensive that they were reserved almost exclusively for the noble and very rich. The ancient Egyptians were particularly fond of their pearls. Many Egyptian leaders treasured pearls so much that they were often buried along with their cherished pearl collection. In the Orient and Persian Empire, pearls were ground into costly powders to cure anything from heart disease to epilepsy, with possible aphrodisiac uses as well. China's long recorded history also provides ample evidence of the importance of pearls.

B. Pearls usually fall into three categories—natural pearls, cultured pearls and simulated pearls. A natural pearl forms when an irritant, such as a piece of sand, works its way into a particular species of oyster, mussel, or clam. As a defense mechanism, the mollusk secretes a fluid to coat the irritant. Layer upon layer of this coating is deposited on the irritant until a lustrous pearl is formed. A cultured pearl undergoes the same process. The only difference between natural pearls and cultured pearls is that the irritant is a surgically implanted bead or piece of shell called Mother of Pearl. Often, these shells are ground oyster shells that are worth significant amounts of money in their own right as irritant-catalysts for quality pearls. The resulting core is much larger than in a natural pearl. Imitation pearls are a different story altogether. In most cases, a glass bead is dipped into a solution made from fish scales. This coating is thin and may eventually wear off. One can usually tell an imitation by biting on it. The island of Mallorca in Spain is known for its imitation pearl industry.

C. Regardless of the method used to acquire a pearl, the process usually takes several years. Mussels must reach a mature age, which can take up to 3 years, and then be implanted or naturally receive an irritant. Once the irritant is in place, it can take up to another 3 years for the pearl to reach its full size. Often, the irritant may be rejected, the pearl will be terribly misshapen, or the oyster may simply die from disease or countless other complications. By the end of a 5 to 10 year cycle, only 50% of the oysters will have survived. And of the pearls produced, only approximately 5% are of a quality substantial enough for top jewelry makers.

D. How can untrained eyes determine a pearl's worth? Luster and size are generally considered the two main factors to look for. Luster for instance, depends on the fineness and evenness of the layers. The deeper the glow, the more perfect the shape and surface, the more valuable they are. Size on the other hand, has to do with the age of the oyster that created the pearl (the more mature oysters produce larger pearls) and the location in which the pearl was cultured. The South Sea waters of Australia tend to produce the larger pearls; probably because the water along the coast line is supplied with rich nutrients from the ocean floor. Also, the type of mussel being common to the area seems to possess a predilection for producing comparatively large pearls.

E. In general, cultured pearls are less valuable than natural pearls, whereas imitation pearls almost have no value. One way that jewelers can determine whether a pearl is cultured or natural is to have a gem lab perform an X-ray of the pearl. If the X-ray reveals a nucleus, the pearl is likely a bead nucleated saltwater pearl. If no nucleus is present, but irregular and small dark inner spots indicating a cavity are visible, combined with concentric rings of organic substance, the pearl is likely a cultured freshwater. Among cultured pearls, Akoya pearls from Japan are some of the most lustrous. Although imitation pearls look the part, they do not have the same weight or smoothness as real pearls, and their luster will also dim greatly.

F. Historically, the world's best pearls came from the Persian Gulf, especially around what is now Bahrain. The pearls of the Persian Gulf were naturally created and collected by breath-hold divers. Unfortunately, the natural pearl industry of the Persian Gulf ended abruptly in the early 1930's with the discovery of large deposits of oil. The water pollution resulting from spilled oil and indiscriminate over-fishing of oysters essentially ruined the pristine waters of the Gulf once producing pearls. Still, Bahrain remains one of the foremost trading centers for high quality pearls. In fact, cultured pearls are banned from the Bahrain pearl market, in an effort to preserve the location's heritage. Nowadays, the largest stock of natural pearls probably resides in India. Ironically, much of India's stock of natural pearls came originally from Bahrain. Unlike Bahrain, which has essentially lost its pearl resource, traditional pearl fishing is still practiced on a small scale in India.

G. Pearls also come in many colours. The most popular colours are white, cream, and pink. Silver, black, and gold are also gaining increasing interest. In fact, a deep lustrous black pearl is one of the rarest finds in the pearling industry, usually only being found

in the South Sea near Australia. Thus, they can be one of the more costly items. Nowadays, pearls predominately come from Japan, Australia, Indonesia, Myanmar, China, India, the Philippines, and Tahiti. Japan, however, controls roughly 80% of the world pearl market, with Australia and China coming in second and third, respectively.

Questions 1 - 4

Reading Passage 1 has seven paragraphs, A—G.

Which paragraph contains the following information?

Write the correct letter A—G in boxes 1-4 on your answer sheet.

- 1 difficulties in cultivating process
- 2 causes affecting the size of natural pearls
- 3 ancient customs around pearls
- 4 distinctions between cultured pearls and natural ones

Questions 5-10

Complete the summary below. Choose letter from A—K for each answer. Write them in boxes 5-10 on your answer sheet.

Throughout history, people in 5 used pearls for medicine and philtres. There are essentially three types of pearls: natural, cultured and imitation. Natural and cultured pearls share a similar growing process, while imitation pearls are different. And 6 owns the reputation for its imitation pearl industry. The country 7..... usually produces the larger sized pearls due to the favourable environment along the coast line, while the nation of 8..... manufactures some of the most listening cultured pearls. In the past, the country 9 in the Persian Gulf, produced the world's best pearls. At present, the major remaining suppliers of natural pearls are in 10.....

- A. America
- B. Philippines
- C. Australia
- D. Bahrain
- E. China
- F. Japan

- G. India
- H. Egypt
- I. Myanmar
- J. Persia
- K. Mallorca

Questions 11 - 13

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

In boxes 11-13 on your answer sheet, write

- TRUE if the statement agrees with the information
- FALSE if the statement contradicts the information
- NOT GIVEN if there is no information on this

- 11 A cultured pearl's centre is often significantly larger than that in a natural pearl.
- 12 Imitation pearls are usually the same price as natural ones.
- 13 The size of pearls produced in Japan is surely smaller than those from Australia.

READING PASSAGE 2

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

Questions 14-19

Reading Passage 2 has seven paragraphs, A-G.

Choose the correct heading for paragraph A—C and from the list of headings below.

Write the correct number, i-x, in boxes 14-19 on your answer sheet.

List of Headings

- i The subconscious nature of gestures

- ii The example of regional differences
- iii The key factors of gestures
- iv Sending out important signals
- v How a well-known gesture loses its meaning
- vi Performance in a specific setting
- vii Recent research of Gesture Variant
- viii Comparison to an everyday-use object
- ix How will conflict be handled
- x Individual deviation of cultural norms

14. Paragraph A

15. Paragraph B

16. Paragraph C

Example Answer

Paragraph D i

17. Paragraph E

18. Paragraph F

19. Paragraph G

Gesture

A. gesture is any action that sends a visual signal to an onlooker. To become a gesture, an act has to be seen by someone else and has to communicate some pieces of information to them. It can do this either because the gesturer deliberately sets out to send a signal or it can do it only incidentally. The hand-wave is a Primary Gesture,because it has no other existence or function. Therefore, to make it a gesture, first, it should be clear and unambiguous. Others would be able to understand it instantly when it is shown to them. Nor may any component of a gesture, its force, its direction and amplitude of movement, be altered: otherwise, confusion or misunderstanding may occur.

B. Most people tend to limit their use of the term “gesture” to the primary form the hand-wave type—but this misses an important point. What matters with gesturing is

not what signals we think we are sending out, but what signals are being received. The observers of our acts will make no distinction between our intentional primary gestures and our unintentional, incidental ones. This is why it is preferable to use the term "gesture" in its wider meaning as an "observed action". This can be compared to the ring of a telephone. The speed, tone and intensity of a telephone remain the same for any phone call. Even the length of time before being told that the number you are dialing is not answering, unless the caller hangs up, is the same.

C. Some gestures people use are universal. The shoulder shrug is a case in point. The shrug is done by bringing the shoulders up, drawing the head in, and turning the palms upwards so as to reveal that nothing is hidden. The shoulder shrug can also demonstrate submission or that what is being said isn't understood. Another example is that an angry person usually expresses his rage by waving his clenched fist rapidly and forcefully. Surprisingly, you may find that people of different cultures will do the same when they are offended. That is to say, a commonly accepted gesture is shared by them. But if the way the hand is clenched changes, or the amplitude of force and the direction the fist is waved alters, the gesture no longer means the same.

D. So, is gesture born with us or is it developed as we grow up? Recent research found that gesture is more like a spontaneous reaction when we face certain situations. And we just do that automatically. When people talk, they almost always gesture with their hands. This expressive movement can be coaxed into a choreographic form if observed carefully. People can practice spontaneous gesture by forming pairs, then observing and questioning each other. They then show the group what they have collected from their partners. It is fun to surprise a group using this technique. Because spontaneous gestures are often unconscious, people will sometimes be surprised to have their gestures mirrored back to them, saying "Did I really do that?"

E. The attention of research was also drawn to cultural themes. Researchers discovered that if a person has a good set of teeth, he or she would be prone to have a bigger smile than he or she should when good things happen. And if a person possesses a bad set of teeth, he or she would tend to have his or her mouth shut when being teased. And people's reaction to the same joke also varies: some laugh out loud while others titter. However, this does not cause confusion and it helps to develop our "behavioural", which is an important aspect of our identity. It was referred to as a Gesture Variant, which indicates that individuals' gesture production is a complex

process, in which speakers' internal and external factors and interactions could play a role in multi-modal communication.

F. During the research, an interesting phenomenon soon caught researchers' attention. A hand purse gesture, which is formed by straightening the fingers and thumb of one hand and bringing them together so the tips touch, pointing upwards and shaping like a cone, carries different meanings in different countries. In Malta, it means heavy sarcasm: "you may seem good, but you are really bad. "; in Tunisia, it is against recklessness, saying "slow down"; in Italy, it means "What's the matter?" or "What are you trying to say?"; in France, it means "I am afraid". However, this gesture has no clear meaning in American culture. And of course, the way the gesture is conducted is similar in different countries.

G. But what will happen if the gestures of different countries confront each other? The situation is further complicated by the fact that some gestures mean totally different things in different countries. To take one example, in Saudi Arabia, stupidity can be signalled by touching the lower eyelid with the tip of the forefinger. But this same gesture, in various other countries, can mean disbelief, approval, agreement, mistrust, scepticism, alertness, secrecy, craftiness, danger, or criminality. So people are faced with two basic problems where certain gestures are concerned: either one meaning may be signalled by different actions, or several meanings may be signalled by the same action, as we move from culture to culture. The only solution is to approach each culture with an open mind and learn their gestures as one would learn their vocabulary. These all require considerable skill and training and belong in a totally different world from the familiar gestures we employ in everyday life.

Questions 20 - 22

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

Write your answers in boxes 20—22 on your answer sheet.

20 According to the passage, which aspect of the ringing of a telephone is compared with gestures?

- A. The length of the ringing.
- B. The unchanging sound of the ringing.
- C. The telephone ringing intrudes upon our life.
- D. The speed of ringing signals the urgency.

21 Which of the diagrams below shows the gesture “Hand Purse”?

22 In which country should the gesture "Hand Purse" be used with caution?

- A. Malta
- B. Tusinia
- C. Italy
- D. France

Questions 23 - 25

Do the following statements agree with the information given in Reading Passage 2?
In boxes 23-25 on your answer sheet, write

- TRUE if the statement agrees with the information
- FALSE if the statement contradicts the information
- NOT GIVEN if there is no information on this

- 23 Angry people are often in the same age range or group.
- 24 Personal physical characteristics may affect the gesture used.
- 25 A Gesture Variant can still be understood by the members of the same culture.

Question 26

According to the passage, what is the writer's purpose in writing this passage?

Choose the correct letter A, B, C or D

Write your answer in box 26 on your answer sheet.

- A. to clarify the origin of gesture-based communication
- B. to promote the worldwide use of gestures
- C. to investigate whether gesture use affects information content
- D. to explain the concept of gesture

READING PASSAGE 3

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

Grimm's Fairy Tales

The Brothers Grimm, Jacob and Wilhelm, named their story collection Children's and Household Tales and published the first of its seven editions in Germany in 1812. The table of contents reads like an A-list of fairy-tale celebrities: Cinderella, Sleeping Beauty, Snow White, Little Red Riding Hood, Rapunzel, Rumpelstiltskin, Hansel and Gretel, the Frog King. Drawn mostly from oral narratives, the 210 stories in the Grimms' collection represent an anthology of fairy tales, animal fables, rustic farces, and religious allegories that remain unrivalled to this day.

Such lasting fame would have shocked the humble Grimms. During their lifetimes the collection sold modestly in Germany, at first only a few hundred copies a year. The early editions were not even aimed at children. The brothers initially refused to consider illustrations, and scholarly footnotes took up almost as much space as the tales themselves. Jacob and Wilhelm viewed themselves as patriotic folklorists, not as entertainers of children. They began their work at a time when Germany had been overrun by the French under Napoleon, who were intent on suppressing local culture. As young, workaholic scholars, single and sharing a cramped flat, the Brothers Grimm undertook the fairy-tale collection with the goal of saving the endangered oral tradition of Germany.

For much of the 19th century teachers, parents, and religious figures, particularly in the United States, deplored the Grimms' collection for its raw, uncivilized content. Offended adults objected to the gruesome punishments inflicted on the stories' villains. In the original "Snow White" the evil stepmother is forced to dance in red-hot iron shoes until she falls down dead. Even today some protective parents shy from the Grimms' tales because of their reputation for violence.

Despite its sometimes rocky reception, Children's and Household Tales gradually took root with the public. The brothers had not foreseen that the appearance of their work would coincide with a great flowering of children's literature in Europe. English publishers led the way, issuing high-quality picture books such as Jack and the Beanstalk and handsome folktale collections, all to satisfy a newly literate audience seeking virtuous material for the nursery. Once the Brothers Grimm sighted this new

public, they set about refining and softening their tales, which had originated centuries earlier as earthy peasant fare. In the Grimms' hands, cruel mothers became nasty stepmothers, unmarried lovers were made chaste, and the incestuous father was recast as the devil.

In the 20th century the Grimms' fairy tales have come to rule the bookshelves of children's bedrooms. The stories read like dreams come true: handsome lads and beautiful damsels, armed with magic, triumph over giants and witches and wild beasts. They outwit mean, selfish adults. Inevitably the boy and girl fall in love and live happily ever after. And parents keep reading because they approve of the finger-wagging lessons inserted into the stories: keep your promises, don't talk to strangers, work hard, obey your parents. According to the Grimms, the collection served as "a manual of manners".

Altogether some 40 persons delivered tales to the Grimms. Many of the storytellers came to the Grimms' house in Kassel. The brothers particularly welcomed the visits of Dorothea Viehmann, a widow who walked to town to sell produce from her garden. An innkeeper's daughter, Viehmann had grown up listening to stories from travellers on the road to Frankfurt. Among her treasures was "Aschenputtel"—Cinderella. Marie Hassenpflug was a 20-year-old friend of their sister, Charlotte, from a well-bred, French-speaking family. Marie's wonderful stories blended motifs from the oral tradition and from Perrault's influential 1697 book, Tales of My Mother Goose, which contained elaborate versions of "Little Red Riding Hood", "Snow White", and "Sleeping Beauty", among others. Many of these had been adapted from earlier Italian fairy tales.

Given that the origins of many of the Grimm fairy tales reach throughout Europe and into the Middle East and Orient, the question must be asked: How German are the Grimm tales? Very, says scholar Heinz Rolleke. Love of the underdog, rustic simplicity, creative energy—these are Teutonic traits. The coarse texture of life during medieval times in Germany, when many of the tales entered the oral tradition, also coloured the narratives. Throughout Europe children were often neglected and abandoned, like Hansel and Gretel. Accused witches were burned at the stake, like the evil mother-in-law in "The Six Swans". "The cruelty in the stories was not the Grimms' fantasy", Rolleke points out. "It reflected the law-and-order system of the old times".

The editorial fingerprints left by the Grimms betray the specific values of 19th-century Christian, bourgeois German society. But that has not stopped the tales from being embraced by almost every culture and nationality in the world. What accounts for this widespread, enduring popularity? Bernhard Lauer points to the "universal style" of the writing. "You have no concrete descriptions of the land, or the clothes, or the forest, or the castles. It makes the stories timeless and placeless." "The tales allow us to express 'our utopian longings'," says Jack Zipes of the University of Minnesota, whose 1987 translation of the complete fairy tales captures the rustic vigour of the original text. "They show a striving for happiness that none of us knows but that we sense is possible. We can identify with the heroes of the tales and become in our mind the masters and mistresses of our own destinies."

Fairy tales provide a workout for the unconscious, psychoanalysts maintain. Bruno Bettelheim famously promoted the therapeutic value of the Grimms' stories, calling fairy tales the "great comforters". By confronting fears and phobias, symbolized by witches, heartless stepmothers, and hungry wolves, children find they can master their anxieties. Bettelheim's theory continues to be hotly debated. But most young readers aren't interested in exercising their unconsciousness. The Grimm tales in fact please in an infinite number of ways. Something about them seems to mirror whatever moods or interests we bring to our reading of them. This flexibility of interpretation suits them for almost any time and any culture.

Questions 27 - 32

Do the following statements agree with the views of the writer in Reading Passage 3?
In boxes 27-32 on your answer sheet, write

- | | |
|-----------|--|
| YES | if the statement agrees with the views of the writer |
| NO | if the statement contradicts the views of the writer |
| NOT GIVEN | if it is impossible to say that the writer thinks about this |

- 27 The Grimm brothers believed they would achieve international fame.
- 28 The Grimm brothers were forced to work in secret.
- 29 Some parents today still think Grimm's fairy tales are not suitable for children.
- 30 The first edition of Grimm's fairy tales sold more widely in England than in Germany.
- 31 Adults like reading Grimm's fairy tales for reasons different from those of children.

32 The Grimm brothers based the story “Cinderella” on the life of Dorothea Viehmann.

Questions 33 - 35

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

Write your answers in boxes 33-35 on your answer sheet.

33 In paragraph 4, what changes happened at that time in Europe?

- A. Literacy levels of the population increased.
- B. The development of printing technology made it easier to publish.
- C. Schools were open to children.
- D. People were fond of collecting superb picture books.

34 What changes did the Grimm Brothers make in later editions?

- A. They made the stories shorter.
- B. They used more oral language.
- C. The content of the tales became less violent.
- D. They found other origins of the tales.

35 What did Marie Hassenpflug contribute to the Grimm’s Fairy tales?

- A. She wrote stories.
- B. She discussed the stories with them.
- C. She translated a popular book for the brothers using her talent for languages.
- D. She told the oral stories that were based on traditional Italian stories.

Questions 36 - 40

Complete each sentence with correct ending, A—H, below.

Write the correct letter, A—H, in boxes 36-40 on your answer sheet.

36 Heinz Rolleke said the Grimm’s tales are “German” because the tales

37 Heinz Rolleke said the abandoned children in tales

- 38 Bernhard Lauer said the writing style of the Grimm brothers is universal because they
- 39 Jack Zipes said the pursuit of happiness in the tales means they
- 40 Bruno Bettelheim said the therapeutic value of the tales means that the fairy tales
- A. reflect what life was like at that time.
B. help children deal with their problems.
C. demonstrate the outdated system.
D. tell of the simplicity of life in the German countryside.
E. encourage people to believe that they can do anything.
F. recognize the heroes in the real life.
G. contribute to the belief in nature power.
H. avoid details about characters' social settings.

TEST 5

READING PASSAGE 1

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

The "Extinct" Grass in Britain

Bromus interruptus, commonly known as the interrupted brome, is a plant in the true grass family. Called interrupted brome because of its gappy seed-head, this unprepossessing grass was found nowhere else in the world. Sharp-eyed Victorian botanists were the first to notice it, and by the 1920s the odd-looking grass had been found across much of southern England. Yet its decline was just as dramatic. By 1972 it had vanished from its last toehold—two hay fields at Pampisford, near Cambridge. Even the seeds stored at the Cambridge University Botanic Garden as an insurance policy were dead, having been mistakenly kept at room temperature. Botanists mourned: a unique living entity was gone forever.

Yet reports of its demise proved premature. Interrupted brome has come back from the dead, and not through any fancy genetic engineering. Thanks to one green-fingered botanist, interrupted brome is alive and well living as a pot plant. It's Britain's dodo, which is about to become a phoenix, as conservationists set about relaunching its career in the wild.

At first, Philip Smith was unaware that the scrawny pots of grass on his bench were all that remained of a uniquely British species. But when news of the "extinction" of *Bromus interruptus* finally reached him, he decided to astonish his colleagues. He seized his opportunity at a meeting of the Botanical Society of the British Isles in Manchester in 1979, where he was booked to talk about his research on the evolution of the brome grasses. It was sad, he said, that interrupted brome had become extinct. Then he whipped out two enormous pots of it. The extinct grass was very much alive. It turned out that Smith had collected seeds from the brome's last refuge at Pampisford in 1963, shortly before the species disappeared from the wild altogether. Ever since then, Smith had grown the grass on, year after year. So in the end the hapless grass survived not through some high-powered conservation scheme or fancy genetic manipulation, but simply because one man was interested in it. As Smith points out, interrupted brome isn't particularly attractive and has no commercial value.

The brome's future, at least in cultivation, now seems assured. Seeds from Smith's plants have been securely stored in the state-of-the-art Millennium Seed Bank at Wakehurst Place in Sussex. And living plants thrive at the botanic gardens at Kew, Edinburgh and Cambridge. This year, "bulking up" is under way to make sure there are plenty of plants in all the gardens, and sacksful of seeds are being stockpiled at strategic sites throughout the country. The brome's relaunch into the British countryside is next on the agenda. English Nature has included interrupted brome in its Species Recovery Programme, and it is on track to be reintroduced into the agricultural landscape, if friendly farmers can be found. The brome was probably never common enough to irritate farmers, but no one would value it today for its productivity or its nutritious qualities. As a grass, it leaves agriculturalists cold.

So where did it come from? Smith's research into the taxonomy of the brome grasses suggests that interrupted almost certainly mutated from another weedy grass, soft brome, *hordeaceus*. So close is the relationship that interrupted brome was originally deemed to be a mere variety of soft brome by the great Victorian taxonomist Professor

Hackel. But in 1895, George Claridge Druce, a 45-year-old Oxford pharmacist with a shop on the High Street, decided that it deserved species status, and convinced the botanical world. Druce was by then well on his way to fame as an Oxford don, mayor of the city, and a fellow of the Royal Society.

The brome's parentage may be clear, but the timing of its birth is more obscure. A clue lies in its penchant for growing as a weed in fields sown with a fodder crop—particularly nitrogen-fixing legumes such as sainfoin, lucerne or clover. According to agricultural historian Joan Thirsk, sainfoin and its friends made their first modest appearance in Britain in the early 1600s. Seeds brought in from the Continent were sown in pastures to feed horses and other livestock. And by 1650 the legumes were increasingly introduced into arable rotations, to serve as "green nature" to boost grain yields. A bestseller of its day, Nathaniel Fiennes's *Sainfoin Improved*, published in 1671, helped to spread the word.

Although the credit for the "discovery" of interrupted brome goes to a Miss A.M. Barnard, who collected the first specimens at Odsey, Bedfordshire, in 1849, the grass had probably lurked undetected in the English countryside for at least a hundred years. Smith thinks the botanical dodo probably evolved in the late 17th or early 18th century, once sainfoin became established. The brome's fortunes then declined dramatically over the 20th century, not least because the advent of the motor car destroyed the market for fodder crops for horses.

Like many once-common arable weeds, such as the corncockle, the seeds of interrupted brome cannot survive long in the soil. Each spring, the brome relied on farmers to resow its seeds; in the days before weedkillers and sophisticated seed sieves, an ample supply would have contaminated stocks of crop seed. But fragile seeds are not the brome's only problem: this species is also reluctant to release its seeds as they ripen. Show it a ploughed field today and this grass will struggle to survive, says Smith. It will be difficult to establish in today's "improved" agricultural landscape, inhabited by notoriously vigorous competitors.

Interrupted brome's reluctance to spread under its own steam could have advantages, however. Any farmer willing to foster this unique contribution to the world's flora can rest assured that the grass will never become an invasive pest. Restoring interrupted brome to its rightful home could bring positive benefits too, once this quirky grass wins recognition as a unique national monument. British farmers made it possible for

interrupted brome to evolve in the first place. Let the grass grow once again in its "natural" habitat, say the conservationists, and it could become a badge of honour for a new breed of eco-friendly farmer.

Questions 1 - 8

Do the following statements agree with the information given in Reading Passage 1 ?
In boxes 1-8 on your answer sheet, write

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

- 1 The name of interrupted brome comes from the fact that the unprepossessing grass disappeared from places in the world for a period.
- 2 Interrupted brome became extinct because they were kept accidentally at room temperature.
- 3 Philip Smith worked at the University of Manchester.
- 4 English Nature has planned to recover the interrupted brome with seeds from Kew Botanic Gardens.
- 5 Farmers in the British countryside were pleased to grow interrupted brome for the agricultural landscape.
- 6 Legumes were used for feeding livestock and enriching the soil.
- 7 Interrupted brome grows poorly when competing with other energetic plants.
- 8 Only weedkillers can stop interrupted brome becoming an invasive pest.

Questions 9 - 13

Use the information in the passage to match the people (listed A-F) with opinions or deeds below.

Write the appropriate letters A—F in boxes 9—13 on your answer sheet.

- 9 identified interrupted brome as another species of brome.
- 10 convinced others about the status of interrupted brome in the botanic world.
- 11 found interrupted brome together with sainfoin.
- 12 helped farmers know that sainfoin is useful for enriching the soil.
- 13 collected the first sample of interrupted brome.

- A. A.M. Barnard
- B. Professor Hackel
- C. George Claridge Druce
- D. Joan Thirsk
- E. Philip Smith
- F. Nathaniel Fiennes

READING PASSAGE 2

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

The culture of Chimpanzees

Humankind's nearest relative is even closer than we thought: chimpanzees display remarkable behaviours that can only be described as social customs passed on from generation to generation.

A. Researchers have studied the similarities between chimpanzees and humans for years, but in the past decade they have determined that these resemblances run much deeper than anyone first thought. For instance, the nut cracking observed in the Tai Forest is far from a simple chimpanzee behaviour; rather it is a singular adaptation found only in that particular part of Africa and a trait that biologists consider to be an expression of chimpanzee culture. Scientists frequently use the term “culture” to describe elementary animal behaviours, but as it turns out, the rich and varied cultural traditions found among chimpanzees are second in complexity only to human traditions.

B. During the past two years, an unprecedented scientific collaboration, involving every major research group studying chimpanzees, has documented a multitude of distinct cultural patterns extending across Africa, in actions ranging from the animals' use of tools to their forms of communications and social customs. This emerging picture of chimpanzees not only affects how we think of these amazing creatures but also alters human beings' conception of our own uniqueness and hints at ancient foundations for extraordinary capacity for culture.

C. Homo sapiens and Pan troglodytes have coexisted for hundreds of millennia and share more than 98 percent of their genetic material, yet only 40 years ago we still knew next to nothing about chimpanzee behaviour in the wild. That began to change in the 1960s, when Toshisada Nishida of Kyoto University in Japan and Jane Goodall began their studies of wild chimpanzees at two field sites in Tanzania. Goodall's research station at Gombe—the first of its kind—is more famous.

D. In these initial studies, as the chimpanzees became accustomed to close observation, the remarkable discoveries began. Researchers witnessed a range of unexpected behaviours, including fashioning and using tools, hunting, meat eating, food sharing and lethal fights between members of neighbouring communities. In the years that followed, other primatologists set up camp elsewhere, and, despite all the financial, political and logistical problems that can beset African fieldwork, several of these out-posts became truly long-term projects. As a result, we live in an unprecedented time, when an intimate and comprehensive scientific record of chimpanzees' lives at last exists not just for one but for several communities spread across Africa.

E. As early as 1973, Goodall recorded 13 forms of tool use as well as eight social activities that appeared to differ between the Gombe chimpanzees and chimpanzee populations elsewhere. She ventured that some variations had what she termed a cultural origin. But what exactly did Goodall mean by "culture"? The diversity of human cultures extends from technological variations to marriage rituals, from culinary habits to myths and legends. Animals do not have myths and legends, of course. But they do have the capacity to pass on behavioural traits from generation to generation, not through their genes but by learning. For biologists, this is the fundamental criterion for a cultural trait: it must be something that can be learned by observing the established skills of others and thus passed on to future generations.

F. What of the implications for chimpanzees themselves? We must highlight the tragic loss of chimpanzees, whose populations are being decimated just when we are at last coming to appreciate these astonishing animals more completely. The bushmeat trade is particularly alarming: logging has driven roadways into the forests that are now used to ship wild-animal meat—including chimpanzee meat—to consumers as far afield as Europe. Such destruction threatens not only the animals themselves but also a host of fascinatingly different ape cultures.

G. Perhaps the cultural richness of the ape may yet help in its salvation, however. Some conservation efforts have already altered the attitudes of some local people. A few organizations have begun to show videotapes illustrating the cognitive prowess of chimpanzees. One Zairian viewer was heard to exclaim, “Ah, this ape is so like me, I can no longer eat him.”

H. How an international team of chimpanzee experts conduct the most comprehensive survey of the animals ever attempted? Scientists have been investigating chimpanzee culture for several decades, but too often their studies have contained a crucial flaw. Most attempts to document cultural diversity among chimpanzees have relied solely on officially published accounts of the behaviours recorded at each research site. But this approach probably overlooks a good deal of cultural variation for three reasons.

I. Firstly, scientists typically don’t publish an extensive list of all the activities they do not see at a particular location. Yet this is exactly what we need to know—which behaviours were and were not observed at each site. Second, many reports describe chimpanzee behaviours without saying how common they are; without this information, we can’t determine whether a particular action was a once-in-a-lifetime aberration or a routine event that should be considered part of the animals’ culture. Finally, researchers’ descriptions of potentially significant chimpanzee behaviour frequently lack sufficient detail, making it difficult for scientists working at other spots to record the presence or absence of the activities.

J. To remedy these problems, the two of us decided to take a new approach. We asked field researchers at each site for a list of all the behaviours they suspected were local traditions. With this information in hand, we pulled together a comprehensive list of 65 candidates for cultural behaviours.

K. Then we distributed our list to the team leaders at each site. In consultation with their colleagues, they classified each behaviour in terms of its occurrence or absence in the chimpanzee community studied. The key categories were customary behaviour, habitual, present, absent, and unknown. We should note, however, that certain cultural traits are no doubt passed on by a combination of imitation and simpler kinds of social learning. Either way, learning from elders is crucial to growing up as a competent wild chimpanzee.

Questions 14 - 18

Reading Passage 2 has eleven paragraphs A—K.

Which paragraph contains the following information?

Write the correct letter A—K, in boxes 14—18 on your answer sheet.

- 14 A problem of research on chimpanzee culture which is only based on official sources
- 15 A new system designed by two scientists aiming to solve the problem
- 16 Reasons why previous research on ape culture is inadequate
- 17 Classification of data observed or collected
- 18 An example showing cognitive powers of animals leading to indication of change in local people's attitude toward preservation

Questions 19-22

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

In boxes 19-22 on your answer sheet, write

- TRUE if the statement agrees with the information
- FALSE if the statement contradicts the information
- NOT GIVEN if there is no information on this

- 19 Research found that chimpanzees will possess the same complex culture as humans.
- 20 Human and apes ancestors lived together long ago and share most of their genetic substance.
- 21 Jane Goodall has observed many surprising features of complex behaviours among chimpanzees.
- 22 Chimpanzees, like humans, derive cultural behaviours mostly from genetic inheritance.

Questions 23 - 26

Answer the questions below.

Choose NO MORE THAN THREE WORDS AND / OR A NUMBER from passage for each answer.

Write your answers in boxes 23-26 on your answer sheet.

- 23 When did the unexpected discoveries of chimpanzee behaviour start?
- 24 Which country is the research site of Toshisada Nishida and Jane Goodall?
- 25 What did the chimpanzees have to get used to in the initial study?
- 26 What term did Jane Goodall use in 1973 to explain groups of chimpanzees using tools differently?

READING PASSAGE 3

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

personality and appearance

When Charles Darwin applied to be the “energetic young man” that Robert Fitzroy, the Beagle’s captain, sought as his gentleman companion, he was almost let down by a woeful shortcoming that was as plain as the nose on his face. Fitzroy believed in physiognomy—the idea that you can tell a person’s character from their appearance. As Darwin’s daughter Henrietta later recalled, Fitzroy had “made up his mind that no man with such a nose could have energy”. This was hardly the case. Fortunately, the rest of Darwin’s visage compensated for his sluggardly proboscis: “His brow saved him.”

The idea that a person’s character can be glimpsed in their face dates back to the ancient Greeks. It was most famously popularised in the late 18th century by the Swiss poet Johann Lavater, whose ideas became a talking point in intellectual circles. In Darwin’s day, they were more or less taken as given. It was only after the subject became associated with phrenology, which fell into disrepute in the late 19th century, that physiognomy was written off as pseudoscience.

First impressions are highly influential, despite the well-worn admonition not to judge a book by its cover. Within a tenth of a second of seeing an unfamiliar face we have

already made a judgement about its owner's character—caring, trustworthy, aggressive, extrovert, competent and so on. Once that snap judgement has formed, it is surprisingly hard to budge. People also act on these snap judgements. Politicians with competent-looking faces have a greater chance of being elected, and CEOs who look dominant are more likely to run a profitable company. There is also a well-established “attractiveness halo”. People seen as good-looking not only get the most valentines but are also judged to be more outgoing, socially competent, powerful, intelligent and healthy.

In 1966, psychologists at the University of Michigan asked 84 undergraduates who had never met before to rate each other on five personality traits, based entirely on appearance, as they sat for 15 minutes in silence. For three traits—extroversion, conscientiousness and openness—the observers' rapid judgements matched real personality scores significantly more often than chance. More recently, researchers have re-examined the link between appearance and personality, notably Anthony Little of the University of Stirling and David Perrett of the University of St Andrews, both in the UK. They pointed out that the Michigan studies were not tightly controlled for confounding factors. But when Little and Perrett re-ran the experiment using mugshots rather than live subjects, they also found a link between facial appearance and personality—though only for extroversion and conscientiousness. Little and Perrett claimed that they only found a correlation at the extremes of personality.

Justin Carre and Cheryl McCormick of Brock University in Ontario, Canada studied 90 ice-hockey players. They found that a wider face in which the cheekbone-to-cheekbone distance was unusually large relative to the distance between brow and upper lip was linked in a statistically significant way with the number of penalty minutes a player was given for violent acts including slashing, elbowing, checking from behind and fighting. The kernel of truth idea isn't the only explanation on offer for our readiness to make facial judgements. Leslie Zebrowitz, a psychologist at Brandeis University in Waltham, Massachusetts, says that in many cases snap judgements are not accurate. The snap judgement, she says, is often an “overgeneralisation” of a more fundamental response. A classic example of overgeneralisation can be seen in predators' response to eye spots, the conspicuous circular markings seen on some moths, butterflies and fish. These act as a deterrent to predators because they mimic the eyes of other creatures that the potential predators might see as a threat.

Another researcher who leans towards overgeneralisation is Alexander Todorov. With Princeton colleague Nikolaas Oosterhof, he recently put forward a theory which he says explains our snap judgements of faces in terms of how threatening they appear. Todorov and Oosterhof asked people for their gut reactions to pictures of emotionally neutral faces, sifted through all the responses, and boiled them down to two underlying factors: how trustworthy the face looks, and how dominant. Todorov and Oosterhof conclude that personality judgements based on people's faces are an overgeneralisation of our evolved ability to infer emotions from facial expressions, and hence a person's intention to cause us harm and their ability to carry it out. Todorov, however, stresses that overgeneralisation does not rule out the idea that there is sometimes a kernel of truth in these assessments of personality.

So if there is a kernel of truth, where does it come from? Perrett has a hunch that the link arises when our prejudices about faces turn into self-fulfilling prophecies—an idea that was investigated by other researchers back in 1977. Our expectations can lead us to influence people to behave in ways that confirm those expectations: consistently treat someone as untrustworthy and they end up behaving that way. This effect sometimes works the other way round, however, especially for those who look cute. The Nobel prize-winning ethologist Konrad Lorenz once suggested that baby-faced features evoke a nurturing response. Support for this has come from work by Zebrowitz, who has found that baby-faced boys and men stimulate an emotional centre of the brain, the amygdala, in a similar way. But there's a twist. Babyfaced men are, on average, better educated, more assertive and apt to win more military medals than their mature-looking counterparts. They are also more likely to be criminals; think Al Capone. Similarly, Zebrowitz found baby-faced boys to be quarrelsome and hostile, and more likely to be academic highfliers. She calls this the "self-defeating prophecy effect": a man with a baby face strives to confound expectations and ends up overcompensating.

There is another theory that recalls the old parental warning not to pull faces, because they might freeze that way. According to this theory, our personality moulds the way our faces look. It is supported by a study two decades ago which found that angry old people tend to look cross even when asked to strike a neutral expression. A lifetime of scowling, grumpiness and grimaces seemed to have left its mark.

Questions 27 - 31

Do the following statements agree with the views of the writer in Reading Passage 3?
In boxes 27–31 on your answer sheet, write

- YES if the statement agrees with the views of the writer
NO if the statement contradicts the views of the writer
NOT GIVEN if it is impossible to say that the writer thinks about this

- 27 Robert Fitzroy's first impression of Darwin was accurate.
28 The precise rules of "physiognomy" have remained unchanged since the 18th century.
29 The first impression of a person can be modified later with little effort.
30 People who appear capable are more likely to be chosen to a position of power.
31 It is unfair for good-looking people to be better treated in society.

Questions 32–36

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

Write your answers in boxes 32—36 on your answer sheet.

- 32 What's true about Anthony Little and David Perrett's experiment?
- A. It is based on the belief that none of the conclusions in the Michigan experiment is accurate.
B. It supports parts of the conclusions in the Michigan experiment.
C. It replicates the study conditions in the Michigan experiment.
D. It has a greater range of faces than in the Michigan experiment.
- 33 What can be concluded from Justin Carre and Cheryl McCormick's experiment?
- A. A wide-faced man may be more aggressive.
B. Aggressive men have a wide range of facial features.
C. There is no relation between facial features and an aggressive character.
D. It's necessary for people to be aggressive in competitive games.
- 34 What's exemplified by referring to butterfly marks?
- A. Threats to safety are easy to notice.

- B. Instinct does not necessarily lead to accurate judgment.
- C. People should learn to distinguish between accountable and unaccountable judgments.
- D. Different species have various ways to notice danger.

35 What is the aim of Alexander Todorov's study?

- A. to determine the correlation between facial features and social development
- B. to undermine the belief that appearance is important
- C. to learn the influence of facial features on judgments of a person's personality
- D. to study the role of judgments in a person's relationship

36 Which of the following is the conclusion of Alexander Todorov's study?

- A. People should draw accurate judgments from overgeneralization.
- B. Using appearance to determine a person's character is undependable.
- C. Overgeneralization can be misleading as a way to determine a person's character.
- D. The judgment of a person's character based on appearance may be accurate.

Questions 37 - 40

Complete each sentence with correct ending, A—F, below.

Write the correct letter, A-F, in boxes 37-40 on your answer sheet.

- 37 Perret believed people behaving dishonestly
- 38 The writer supports the view that people with babyish features
- 39 According to Zebrowitz, baby-faced people who behave dominantly
- 40 The writer believes facial features

- A. judge other people by overgeneralization,
- B. may influence the behaviour of other people,
- C. tend to commit criminal acts.
- D. may be influenced by the low expectations of other people.
- E. may show the effect of long-term behaviours.
- F. may be trying to repel the expectations of other people.

TEST 6

READING PASSAGE 1

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

The history of tea

The story of tea begins in China. According to legend, in 2737 BC, the Chinese emperor Shen Nung was sitting beneath a tree while his servant boiled drinking water, when some leaves from the tree blew into the water. Shen Nung, a renowned herbalist, decided to try the infusion that his servant had accidentally created. The tree was a *Camellia sinensis*, and the resulting drink was what we now call tea. It is impossible to know whether there is any truth in this story. But tea drinking certainly became established in China many centuries before it had even been heard of in the West. Containers for tea have been found in tombs dating from the Han Dynasty (206 BC—220 AD) but it was under the Tang Dynasty (618—906 AD), that tea became firmly established as the national drink of China.

It became such a favourite that during the late eighth century a writer called Lu Yu wrote the first book entirely about tea, the *Ch'a Ching*, or Tea Classic. It was shortly after this that tea was first introduced to Japan, by Japanese Buddhist monks who had travelled to China to study. Tea received almost instant imperial sponsorship and spread rapidly from the royal court and monasteries to the other sections of Japanese society.

So at this stage in the history of tea, Europe was rather lagging behind. In the latter half of the sixteenth century there are the first brief mentions of tea as a drink among Europeans. These are mostly from Portuguese who were living in the East as traders and missionaries. But although some of these individuals may have brought back samples of tea to their native country, it was not the Portuguese who were the first to ship back tea as a commercial import. This was done by the Dutch, who in the last years of the sixteenth century began to encroach on Portuguese trading routes in the East. By the turn of the century they had established a trading post on the island of Java, and it was via Java that in 1606 the first consignment of tea was shipped from China to Holland. Tea soon became a fashionable drink among the Dutch, and from

there spread to other countries in continental western Europe, but because of its high price it remained a drink for the wealthy.

Britain, always a little suspicious of continental trends, had yet to become the nation of tea drinkers that it is today. Starting in 1600, the British East India Company had a monopoly on importing goods from outside Europe, and it is likely that sailors on these ships brought tea home as gifts. The first coffee house had been established in London in 1652, and tea was still somewhat unfamiliar to most readers, so it is fair to assume that the drink was still something of a curiosity. Gradually, it became a popular drink in coffee houses, which were as much locations for the transaction of business as they were for relaxation or pleasure. They were though the preserve of middle- and upper-class men; women drank tea in their own homes, and as yet tea was still too expensive to be widespread among the working classes. In part, its high price was due to a punitive system of taxation.

One unforeseen consequence of the taxation of tea was the growth of methods to avoid taxation—smuggling and adulteration. By the eighteenth century many Britons wanted to drink tea but could not afford the high prices, and their enthusiasm for the drink was matched by the enthusiasm of criminal gangs to smuggle it in. What began as a small time illegal trade, selling a few pounds of tea to personal contacts, developed by die late eighteenth century into an astonishing organised crime network, perhaps importing as much as 7 million lbs annually, compared to a legal import of 5 million lbs! Worse for die drinkers was that taxation also encouraged the adulteration of tea, particularly of smuggled tea which was not quality controlled through customs and excise. Leaves from other plants, or leaves which had already been brewed and then dried, were added to tea leaves. By 1784, the government realised that enough was enough, and that heavy taxation was creating more problems than it was wordi. The new Prime Minister, William Pitt the Younger, slashed the tax from 119 per cent to 12.5 per cent. Suddenly legal tea was affordable, and smuggling stopped virtually overnight.

Another great impetus to tea drinking resulted from the end of the East India Company's monopoly on trade with China, in 1834. Before that date, China was the country of origin of the vast majority of the tea imported to Britain, but the end of its monopoly stimulated the East India Company to consider growing tea outside China. India had always been the centre of the Company's operations, which led to the increased cultivation of tea in India, beginning in Assam. There were a few false starts,

including the destruction by cattle of one of the earliest tea nurseries, but by 1888 British tea imports from India were for the first time greater than those from China.

The end of the East India Company's monopoly on trade with China also had another result, which was more dramatic though less important in the long term: it ushered in the era of the tea clippers. While the Company had had the monopoly on trade, there was no rush to bring the tea from China to Britain, but after 1834 the tea trade became a virtual free for all. Individual merchants and sea captains with their own ships raced to bring home the tea and make the most money, using fast new clippers which had sleek lines, tall masts and huge sails. In particular there was competition between British and American merchants, leading to the famous clipper races of the 1860s. But these races soon came to an end with the opening of the Suez canal, which made the trade routes to China viable for steamships for the first time.

Questions 1 - 7

Complete the sentences below with words taken from Reading Passage L Use ONE WORD for each answer.

Write your answers in boxes 1-7 on your answer sheet.

- 1 Researchers believed the tea containers detected in from the Han Dynasty was the first evidence of the use of tea.
- 2 Lu Yu wrote a.....about tea before anyone else in the eighth century.
- 3 It was.....from Japan who brought tea to their native country from China.
- 4 Tea was carried from China to Europe actually by the.....
- 5 The British government had to cut down the taxation on tea due to the serious crime of.....
- 6 Tea was planted in.....besides China in the 19th century.
- 7 In order to compete in shipping speed, traders used.....for the race.

Questions 8 - 13

Do the following statements agree with the information given in Reading Passage ?
In boxes 8—13 on your answer sheet, write

TRUE if the statement agrees with the information
FALSE if the statement contradicts the information
NOT GIVEN if there is no information on this

- 8 Tea was popular in Britain in the 16th century.
- 9 Tea was more fashionable than coffee in Europe in the late 16th century.
- 10 Tea was enjoyed by all classes in Britain in the seventeenth century.
- 11 The adulteration of tea also prompted William Pitt the Younger to reduce the tax.
- 12 Initial problems occurred when tea was planted outside China by the East India Company.
- 13 The fastest vessels were owned by America during the 19th century clipper races.

READING PASSAGE 2

You should spend about 20 minutes on Questions 14–26, which are based on Reading Passage 2 below:

How do we find our way?

A. Most modern navigation, such as the Global Positioning System (GPS), relies primarily on positions determined electronically by receivers collecting information from satellites. Yet if the satellite service's digital maps become even slightly outdated, we can become lost. Then we have to rely on the ancient human skill of navigating in three-dimensional space. Luckily, our biological finder has an important advantage over GPS: we can ask questions of people on the sidewalk, or follow a street that looks familiar, or rely on a navigational rubric. The human positioning system is flexible and capable of learning. Anyone who knows the way from point A to point B—and from A to C—can probably figure out how to get from B to C, too.

B. But how does this complex cognitive system really work? Researchers are looking at several strategies people use to orient themselves in space: guidance, path integration and route following. We may use all three or combinations thereof, and as experts learn more about these navigational skills, they are making the case that our

abilities may underlie our powers of memory and logical thinking. For example, you come to New York City for the first time and you get off the train at Grand Central Terminal in midtown Manhattan. You have a few hours to see popular spots you have been told about: Rockefeller Center, Central Park, and the Metropolitan Museum of Art. You meander in and out of shops along the way. Suddenly, it is time to get back to the station. But how?

C. If you ask passersby for help, most likely you will receive information in many different forms. A person who orients herself by a prominent landmark would gesture southward: “Look down there. See the tall, broad MetLife Building? Head for that—the station is right below it.” Neurologists call this navigational approach “guidance”, meaning that a landmark visible from a distance serves as the marker for one’s destination.

D. Another city dweller might say: “What places do you remember passing? ... Okay. Go toward the end of Central Park, then walk down to St. Patrick’s Cathedral. A few more blocks, and Grand Central will be off to your left.” In this case, you are pointed toward the most recent place you recall, and you aim for it. Once there you head for the next notable place and so on, retracing your path. Your brain is adding together the individual legs of your trek into a cumulative progress report. Researchers call this strategy “path integration.” Many animals rely primarily on path integration to get around, including insects, spiders, crabs and rodents. The desert ants of the genus *Cataglyphis* employ this method to return from foraging as far as 100 yards away. They note the general direction they came from and retrace their steps, using the polarization of sunlight to orient themselves even under overcast skies. On their way back they are faithful to this inner homing vector. Even when a scientist picks up an ant and puts it in a totally different spot, the insect stubbornly proceeds in the originally determined direction until it has gone “back” all of the distance it wandered from its nest. Only then does the ant realize it has not succeeded, and it begins to walk in successively larger loops to find its way home.

E. Whether it is trying to get back to the anthill or the train station, any animal using path integration must keep track of its own movements so it knows, while returning, which segments it has already completed. As you move, your brain gathers data from your environment—sights, sounds, smells, lighting, muscle contractions, a sense of time passing—to determine which way your body has gone. The church spire, the

sizzling sausages on that vendor's grill, the open courtyard, and the train station—all represent snapshots of memorable junctures during your journey.

F. In addition to guidance and path integration, we use a third method for finding our way. An office worker you approach for help on a Manhattan street corner might say: "Walk straight down Fifth, turn left on 47th, turn right on Park, go through the walkway under the Helmsley Building, then cross the street to the MetLife Building into Grand Central." This strategy, called route following, uses landmarks such as buildings and street names, plus directions—straight, turn, go through—for reaching intermediate points. Route following is more precise than guidance or path integration, but if you forget the details and take a wrong turn, the only way to recover is to backtrack until you reach a familiar spot, because you do not know the general direction or have a reference landmark for your goal. The route-following navigation strategy truly challenges the brain. We have to keep all the landmarks and intermediate directions in our head. It is the most detailed and therefore most reliable method, but it can be undone by routine memory lapses. With path integration, our cognitive memory is less burdened; it has to deal with only a few general instructions and the homing vector. Path integration works because it relies most fundamentally on our knowledge of our body's general direction of movement, and we always have access to these inputs. Nevertheless, people often choose to give route-following directions, in part because saying "Go straight that way!" just does not work in our complex, man-made surroundings.

G. Road Map or Metaphor? On your next visit to Manhattan you will rely on your memory to get present geographic information for convenient visual obviously seductive: maps around. Most likely you will use guidance, path integration and route following in various combinations. But how exactly do these constructs deliver concrete directions? Do we humans have, as an image of the real world, a kind of road map in our heads? Neurobiologists and cognitive psychologists do call the portion of our memory that controls navigation a "cognitive map". The map metaphor is the easiest way to inspection. Yet the notion of a literal map in our heads may be misleading; a growing body of research implies that the cognitive map is mostly a metaphor. It may be more like a hierarchical structure of relationships.

Questions 14 - 18

Use the information in the passage to match the category of each navigation method (listed A—C) with correct statement.

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

NB You may use any letter more than once.

A. guidance method B. path integration method C. route following method

- 14 Split the route up into several smaller parts.
- 15 When mistakes are made, a person needs to go back.
- 16 Find a building that can be seen from far away.
- 17 Recall all the details along the way.
- 18 Memorize the buildings that you have passed by.

Questions 19 - 21

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

Write your answers in boxes 19—21 on your answer sheet.

- 19 According to the passage, how does the Cataglyphis ant respond if it is taken to a different location?

- A. changes its orientation sensors to adapt
- B. releases biological scent for help from others
- C. continues to move according to the original orientation
- D. gets completely lost once disturbed

- 20 What did the author say about the route following method?

- A. dependent on directions to move on
- B. dependent on memory and reasoning
- C. dependent on man-made settings
- D. dependent on the homing vector

- 21 Which of the following is true about the “cognitive map” in this passage?

- A. There is no obvious difference between it and a real map.

- B. It exists in our heads and is always correct.
- C. It only exists in some cultures.
- D. It is managed by a portion of our memory.

Questions 22 - 26

Do the following statements agree with the information given in Reading Passage 2?
In boxes 22-26 on your answer sheet, write

TRUE if the statement agrees with the information
FALSE if the statement contradicts the information
NOT GIVEN if there is no information on this

- 22 Biological navigation is flexible.
- 23 Insects have many ways to navigate that are in common with many other animals.
- 24 When someone follows a route, he or she collects comprehensive perceptual information in the mind along the way.
- 25 The path integration method has a higher requirement of memory compared with the route following method.
- 26 When people find their way, they have an exact map in their mind.

READING PASSAGE 3

You should spend about 20 minutes on Questions , which are based on Reading Passage 3 below.

What is meaning?

Why do we respond to words and symbols in the ways we do?

Semantics, in general, is the subdivision of linguistics concerned with meaning. Semantics attempts the systematic study of the assignment of meanings to minimal meaning-bearing elements and the combination of these in the production of more complex meaningful expressions. Elementary word groups may be combined in a

relationship of content, forming thematic groups and semantic and lexical “fields”. For example, all the means of expressing the concept of joy in a given language constitute the lexical-semantic field “joy”. Because of the trained patterns of response, people listen more respectfully to the health advice of someone who has “MD” after his name than to that of someone who hasn’t. A “pattern of reactions”, then, is the sum of the ways we act in response to events, to words, and to symbols.

Words and word meanings are one of the most important information cues used in speaking and understanding, as well as in reading. Indeed, a person’s life experience and cultural experience (even reading comic strips) are most relevant to the development of linguistic “meaning making” in any language, which is very important in the communication process. Words from a person’s native language and culture perspective can carry special associations. For instance, the Spanish words for hammock, tobacco, and potato are derived from Tamo words for these items. Therefore, when people’s semantic habits are reasonably similar to those of most people around them, they are regarded as “normal” or perhaps “dull”. If their semantic habits are noticeably different from those of others, they are regarded as “individualistic” or “original”, or, if the differences are disapproved of or viewed with alarm, as “crazy”.

A definition states the meaning of a word using other words. It is clear that to define a word, as a dictionary does, is simply to explain the word with more words. However, defining words with more words usually gets people (especially children) at once into what mathematicians call an “infinite regress”, an infinite series of occurrences or concepts. For example, it can lead people into the kind of run-around that people sometimes encounter when they look up “impertinence” and find it defined as “impudence”, so they look up “impudence” and find it defined as “impertinence”. Yet—and here we come to another common reaction pattern—people often act as if words can be explained fully with more words. To a person who asked for a definition of jazz, Louis Armstrong is said to have replied, “If you have to ask what jazz is, you’ll never know”, proving himself to be an intuitive semanticist as well as a great trumpet player.

Semantics, then, seeks the “operational” definition instead of the dictionary. Bridgman, the 1946 Nobel Prize winner and physicist, once wrote, “The true meaning of a term is to be found by observing what a man does with it, not by what he says about it.” He made an enormous contribution to science by showing that the meaning

of a scientific term lies in the operations, the things done, that establish its validity, rather than in verbal definitions. An example of operational definition of the term “weight” of an object, operationalized to a degree, would be the following: “weight is the numbers that appear when that object is placed on a weighing scale”. According to it, when one starts reading the numbers on the scale, it would more fully make an operational definition. But if people say—and revolutionists have started uprisings with just this statement “Man is born free, but everywhere he is in chains!”—what operations could we perform to demonstrate its accuracy or inaccuracy?

Next, if this suggestion of “operationalism” is pulled outside the physical sciences where Bridgman applied it, what “operations” are people expected to perform as the result of both the language they use and the language other people use in communicating to them? Here is a personnel manager studying an application form. He comes to the words “Education: Harvard University”, and drops the application form in the wastebasket (that’s the “operation”) because, as he would say if you asked him, “I don’t like Harvard men”. This is an instance of “meaning” at work—but it is not a meaning that can be found in dictionaries.

So far as we know, human beings are the only creatures that have, over and above that biological equipment which we have in common with other creatures, the additional capacity for manufacturing symbols and systems of symbols. When we react to a flag, we are not reacting simply to a piece of cloth, but to the meaning with which it has been symbolically endowed. When we react to a word, we are not reacting to a set of sounds, but to the meaning with which that set of sounds has been symbolically endowed. As a matter of fact, how sound symbolism is processed in our brains has not yet been fully explained in the field.

Simply put, the key point of semantics lies in, not the words definition, but our own semantic reactions, which occur when we respond to things the way they “should” be, rather than to the way they are. If a person was to tell a shockingly obscene story in Arabic or Hindustani or Swahili before an audience that understood only English, no one would blush or be angry; the story would be neither shocking nor obscene—indeed, it would not even be a story. Likewise, the value of a dollar bill is not in the bill, but in our social agreement to accept it as a symbol of value. If that agreement were to break down through the collapse of our government, the dollar bill would become only a scrap of paper. We do not understand a dollar bill by staring at it long and hard. We understand it by observing how people act with respect to it. We understand it by

understanding the social mechanisms and the loyalties that keep it meaningful. Therefore, semantics belongs to social studies and potentially underpins the integrity of the social sciences.

Questions 27 - 31

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

Write your answers in boxes 27–31 on your answer sheet.

27 What point is made in the first paragraph?

- A. The aim of education is to teach people to read.
- B. Semantics focuses on the definition of words.
- C. Printed words only carry meaning to those who have received appropriate ways to respond.
- D. Writers should ensure their works satisfy a variety of readers.

28 According to the second paragraph, people are judged by

- A. their level of education.
- B. the closely-related people around them.
- C. how conventional their responses are.
- D. complex situations.

29 What point is made in the third paragraph?

- A. Standard ways are incapable of defining words precisely.
- B. A dictionary often provides clear definitions of words.
- C. Infinite regress is a common occurrence in a dictionary.
- D. Mathematicians could define words accurately.

30 What does the writer suggest about Louis Armstrong?

- A. He is a language expert.
- B. He demonstrated there are similarities between music and language.
- C. He provided insights into how words are defined.
- D. His good skill in music helped him do research in other fields.

31 What does the writer intend to show with the example of the “personnel manager”?

- A. The manager hates applicants from Harvard University.
- B. Meaning can be unique to one person.
- C. The manager has a bad memory of Harvard University.
- D. People’s behaviour usually doesn’t agree with their words.

Questions 32-35

Do the following statements agree with the views of the writer in Reading Passage In boxes 32-35 on your answer sheet, write

- YES if the statement agrees with the views of the writer
- NO if the statement contradicts the views of the writer
- NOT GIVEN if it is impossible to say that the writer thinks about this

32 Some statements are incapable of being proved or disproved.

33 Meaning that is unique to an individual is less worthy of study than shared meanings.

34 Flags and words are both elicited responses.

35 A story can be entertaining without being understood.

Questions 36 - 40

Complete each sentence with the correct ending, below.

Write the correct letter, A-H, in boxes 36-40 on your answer sheet.

- 36 A comic strip
- 37 A dictionary
- 38 Bridgman
- 39 A story in a language the audience cannot understand
- 40 A dollar bill without public acceptance

- A. is meaningless.
- B. can have a lasting effect on human behaviour.
- C. is a symbol that has lost its meaning.

- D. can be understood only in its social context.
- E. can provide only an inadequate definition of meaning.
- F. reflects the variability of human behaviours.
- G. emphasizes the importance of analyzing how words were used .
- H. suggests that certain types of behaviour carry more meaning than others.

TEST 7

READING PASSAGE 1

Tea and Industrial Revolution

A. Alan Macfarlane thinks he could rewrite history. The professor of anthropological science at King's College, Cambridge has, like other historians, spent decades trying to understand the enigma of the Industrial Revolution. Why did this particular important event - the world-changing birth of industry - happen in Britain? And why did it happen at the end of the 18th century?

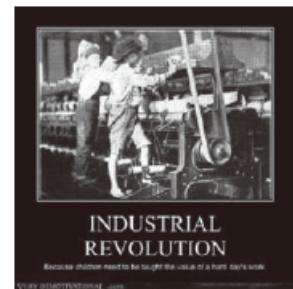
B. Macfarlane compares the question to a puzzle. He claims that there were about 20 different factors and all of them needed to be present before the revolution could happen. The chief conditions are to be found in history textbooks. For industry to 'take off', there needed to be the technology and power to drive factories, large urban populations to provide cheap labour easy transport to move goods around, an affluent middle-class willing to buy mass-produced objects, a market-driven economy, and a political system that allowed this to happen. While this was the case for England, other nations, such as Japan, Holland and France also met some of these criteria. All these factors must have been necessary but not sufficient to cause the revolution. Holland had everything except coal, while China also had many of these factors.



C. Most historians, however, are convinced that one or two missing factors are needed to solve the puzzle. The missing factors, he proposes, are to be found in every kitchen cupboard. Tea and beer, two of the nation's favorite drinks, drove the revolution. Tannin, the active ingredient in tea, and hops, used in making

beer, both contain antiseptic properties. This -plus the fact that both are made with boiled water- helped prevent epidemics of waterborne diseases, such as dysentery, in densely populated urban areas. The theory initially sounds eccentric but his explanation of the detective work that went into his deduction and the fact his case has been strengthened by a favorable appraisal of his research by Roy Porter (distinguished medical historian) the skepticism gives way to wary admiration.

D. Historians had noticed one interesting factor around the mid-18th century that required explanation. Between about 1650 and 1740, the population was static. But then there was a burst in population. The infant mortality rate halved in the space of 20 years, and this happened in both rural areas and cities, and across all classes. Four possible causes have been suggested. There could have been a sudden change in the viruses and bacteria present at that time, but this is unlikely. Was there a revolution in medical science? But this was a century before Lister introduced antiseptic surgery. Was there a change in environmental conditions? There were improvements in agriculture that wiped out malaria, but these were small gains. Sanitation did not become widespread until the 19th century. The only option left was food. But the height and weight statistics show a decline. So the food got worse. Efforts to explain this sudden reduction in child deaths appeared to draw a blank.



E. This population burst seemed to happen at just the right time to provide labor for the Industrial Revolution. But why? When the Industrial Revolution started, it was economically efficient to have people crowded together forming towns and cities. But with crowded living conditions comes disease, particularly from human waste. Some research in the historical records revealed that there was a change in the incidence of waterborne disease at that time, the English were protected by the strong antibacterial agent in hops, which were added to make beer last. But in the late 17th century a tax was introduced on malt. The poor turned to water and gin, and in the 1720s the mortality rate began to rise again.



F. Macfarlane looked to Japan, which was also developing large cities about the same time, and also had no sanitation. Waterborne diseases in the Japanese population were far fewer than those in Britain. Could it be the prevalence of tea in their culture? That was when Macfarlane thought about the role of tea in

Britain. The history of tea in Britain provided an extraordinary coincidence of dates. Tea was relatively expensive until Britain started direct trade with China in the early 18th century. By the 1740s, about the time that infant mortality was falling, the drink was common. Macfarlane guesses that the fact that water had to be boiled, together with the stomach-purifying properties of tea so eloquently described in Buddhist texts, meant that the breast milk provided by mothers was healthier than it had ever been. No other European nation drank tea so often as the British, which, by Macfarlane's logic, pushed the other nations out of the race for the Industrial Revolution.

G. But, if tea is a factor in the puzzle, why didn't this cause an industrial revolution in Japan? Macfarlane notes that in the 17th century, Japan had large cities, high literacy rates and even a futures market. However, Japan decided against a work-based revolution, by giving up labor-saving devices even animals, to avoid putting people out of work. Astonishingly, the nation that we now think of as one of the most technologically advanced, entered the 19th century having almost abandoned the wheel. While Britain was undergoing the Industrial Revolution, Macfarlane notes wryly, Japan was undergoing an industrious one.

Questions 1-7

Reading passage 1 has seven paragraphs, A-G

*Choose the correct heading for paragraphs A -G from the list of headings below.
Write the correct number, i-x, in boxes 1-7 on your answer sheet*

List of headings

- i Cases of Japan, Holland and France
- ii City development in Japan
- iii Tea drinking in Japan and Britain
- iv Failed to find a plausible cause for mystery about lower mortality rate
- V Preconditions necessary for industrial revolution
- vi Time and place of industrialization
- vii Conclusion drawn from the comparison with Japan

viii Relation between population and changes of drink in Britain

ix Two possible solutions to the puzzle

1 Paragraph A

2 Paragraph B

3 Paragraph c

4 Paragraph D

5 Paragraph E

6 Paragraph F

7 Paragraph G

Questions 8-13

Do the following statements agree with the information given in Reading Passage 1? In boxes 8-13 on your answer sheet, write

TRUE	<i>if the statement is true</i>
FALSE	<i>if the statement is false</i>
NOT GIVEN	<i>if the information is not given in the passage</i>

8 The industrialization did not happen in China because of its inefficient railway transportation.

9 Tea and beer contributed to protect people from waterborne disease.

10 Roy Porter disagreed with the proposed theory about the missing factors

11 The reason of lower child deaths is fully explained by food.

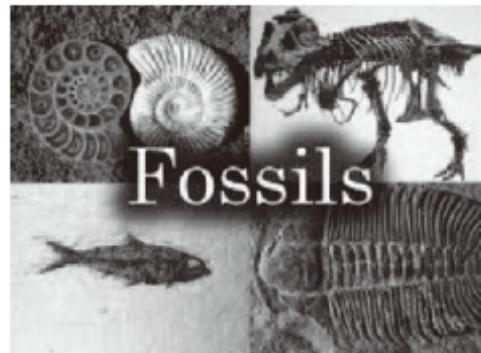
12 The British made beer by themselves.

13 Tax on malt indirectly affected the increase of population in late 17th century

READING PASSAGE 2**Fossil files****"The Paleobiology Database"**

A. Are we now living through the sixth extinction as our own activities destroy ecosystems and wipe out diversity?

That's the doomsday scenario painted by many ecologists, and they may well be right. The trouble is we don't know for sure because we don't have a clear picture of how life changes between extinction events or what has happened in previous episodes. We don't even know how many species are alive today, let alone the rate at which they are becoming extinct. A new project aims to fill some of the gaps. The Paleobiology Database aspires to be an online repository of information about every fossil ever dug up. It is a huge undertaking that has been described as biodiversity's equivalent of the Human Genome Project. Its organizers hope that by recording the history of biodiversity they will gain an insight into how environmental changes have shaped life on Earth in the past and how they might do so in the future. The database may even indicate whether life can rebound no matter what we throw at it, or whether a human induced extinction could be without parallel, changing the rules that have applied throughout the rest of the planet's history.



B. But already the project is attracting harsh criticism. Some experts believe it to be seriously flawed. They point out that a database is only as good as the data fed into it, and that even if all the current fossil finds were catalogued, they would provide an incomplete inventory of life because we are far from discovering every fossilised species. They say that researchers should get up from their computers and get back into the dirt to dig up new fossils. Others are more sceptical still, arguing that we can never get the full picture because the fossil record is riddled with holes and biases.

C. Fans of the Paleobiology Database acknowledge that the fossil record will always be incomplete. But they see value in looking for global patterns that show relative changes in biodiversity. "The fossil record is the best tool we have for understanding how diversity and extinction work in normal times," says John Alroy from the National Center for Ecological Analysis and Synthesis in Santa Barbara. "Having a background extinction estimate gives us a benchmark for understanding the mass extinction that's currently under way. It allows us to say just how bad it is in relative terms."



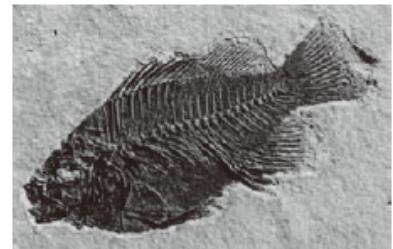
D. To this end, the Paleobiology Database aims to be the most thorough attempt yet to come up with good global diversity curves. Every day between 10 and 15 scientists around the world add information about fossil finds to the database. Since it got up and running in 1998, scientists have entered almost 340,000 specimens, ranging from plants to whales to insects to dinosaurs to sea urchins. Overall totals are updated hourly at www.paleodb.org. Anyone can download data from the public part of the site and play with the numbers to their heart's content. Already, the database has thrown up some surprising results. Looking at the big picture, Alroy and his colleagues believe they have found evidence that biodiversity reached a plateau long ago, contrary to the received wisdom that species numbers have increased continuously between extinction events. "The traditional view is that diversity has gone up and up and up," he says. "Our research is showing that diversity limits were approached many tens of millions of years before the dinosaurs evolved, much less suffered extinction." This suggests that only a certain number of species can live on Earth at a time, filling a prescribed number of niches like spaces in a multi-storey car park. Once it's full, no more new species can squeeze in, until extinctions free up new spaces or something rare and catastrophic adds a new floor to the car park.

E. Alroy has also used the database to reassess the accuracy of species names. His findings suggest that irregularities in classification inflate the overall number of species in the fossil record by between 32 and 44 per cent. Single species often end up with several names, he says, due to misidentification or poor communication between taxonomists in different countries. Repetition like this can distort diversity curves. "If you have really bad taxonomy in one short interval, it will look like a diversity spike—a big diversification followed by a big extinction—when all that has happened is a change in the quality of names," says Alroy. For example, his statistical analysis indicates that of the 4861 North

American fossil mammal species catalogued in the database, between 24 and 31 per cent will eventually prove to be duplicates.

F. Of course, the fossil record is undeniably patchy. Some places and times have left behind more fossil-filled rocks than others. Some have been sampled more thoroughly. And certain kinds of creatures—those with hard parts that lived in oceans, for example—are more likely to leave a record behind, while others, like jellyfish, will always remain a mystery. Alroy has also tried to account for this. He estimates, for example, that only 41 per cent of North American mammals that have ever lived are known from fossils, and he suspects that a similar proportion of fossils are missing from other groups, such as fungi and insects.

G. Not everyone is impressed with such mathematical **wizardry**. Jonathan Adrain from the University of Iowa in Iowa City points out that statistical **wrangling** has been known to create mass extinctions where none occurred. It is easy to misinterpret data. For example, changes in sea level or inconsistent sampling methods can mimic major changes in biodiversity. Indeed, a recent and thorough examination of the literature on marine bivalve fossils has convinced David Jablonsky from the University of Chicago and his colleagues that their diversity has increased steadily over the past 5 million years.



H. With an inventory of all living species, ecologists could start to put the current biodiversity crisis in historical perspective. Although creating such a list would be a task to rival even the Palaeobiology Database, it is exactly what the San Francisco-based ALL Species Foundation hopes to achieve in the next 25 years. The effort is essential, says Harvard biologist Edward o. Wilson, who is alarmed by current rates of extinction. "There is a crisis. We've begun to measure it, and it's very high," Wilson says. "We need this kind of information in much more detail to protect all of biodiversity, not just the ones we know well." Let the counting continue.

Questions 14-19

The reading passage has seven paragraphs, A-F

Choose the correct heading for paragraphs A-F from the list below. Write the correct number, i-xi, in boxes 14-19 on your answer sheet.

List of Headings

- i* Potential error exists in the database
 - ii* Supporter of database recleared its value
 - iii* The purpose of this paleobiology data
 - iv* Reason why some certain species were not included in it
 - v* Duplication of breed but with different names
 - vi* Achievement of Paleobiology Databases since
 - vii* Criticism on the project which is waste of fund
-

14 Paragraph A

15 Paragraph B

16 Paragraph c

17 Paragraph D

18 Paragraph E

19 Paragraph F

Questions 20-22

Use the information in the passage to match the people (listed A-C) with opinions or deeds below. Write the appropriate letters A-C in boxes 20-22 on your answer sheet.

A. Jonathan Adrain

B. John Alroy

C. David Jablonsky

D. Edward o. Wilson

20 Creating the Database would help scientist to identify connections of all species.

21 Believed in contribution of detailed statistics should cover beyond the known species.

22 reached a contradictory finding to the tremendous species die-out.

Questions 23-24

Choose the TWO correct letter following

Write your answers in boxes 23-24 on your answer sheet.

*Please choose TWO CORRECT descriptions about the **The Paleobiology Database** in this passage:*

- A. almost all the experts welcome this project
- B. intrigues both positive and negative opinions from various experts
- C. all different creature in the database have unique name
- D. aims to embrace all fossil information globally
- E. get more information from record rather than the field

Question 25-26

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

Write your answers in boxes 25-26 on your answer sheet.

25 According to the passage, jellyfish belongs to which category of ***The Paleobiology Database?***

- A. repetition breed
- B. untraceable species
- C. specifically detailed species

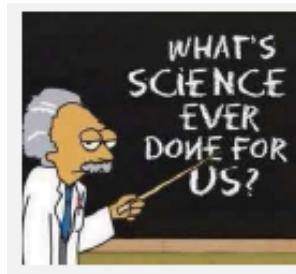
D. currently living creature

26 What is the author's suggestion *according to the end of passage?*

- A. continue to complete counting the number of species in the Paleobiology Database
- B. stop contributing The Paleobiology Database
- C. try to create a database of living creature
- D. study more in the field rather than in the book

READING PASSAGE 3

Communication in science



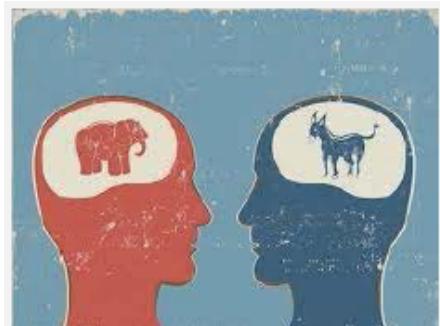
A. Science plays an increasingly significant role in people's lives, making the faithful communication of scientific developments more important than ever. Yet such communication is fraught with challenges that can easily distort discussions, leading to unnecessary confusion and misunderstandings.

B. Some problems stem from the esoteric nature of current research and the associated difficulty of finding sufficiently faithful terminology. Abstraction and complexity are not signs that a given scientific direction is wrong, as some commentators have suggested, but are instead a tribute to the success of human ingenuity in meeting the increasingly complex challenges that nature presents. They can, however, make communication more difficult. But many of the biggest challenges for science reporting arise because in areas of evolving research, scientists themselves often only partly understand the full implications of any particular advance or development. Since that dynamic applies to most of the scientific developments that directly affect people's lives — global warming, cancer research, diet studies — learning how to overcome it is critical to spurring a more informed scientific debate among the broader public.

C. Ambiguous word choices are the source of some misunderstandings. Scientists often employ colloquial terminology, which they then assign a specific meaning that is impossible to fathom without proper training. The term "relativity," for example, is intrinsically misleading. Many interpret the theory to mean that everything is relative and there are no absolutes. Yet although the measurements any observer makes depend on his coordinates and reference frame, the physical phenomena he measures have an invariant description that transcends that observer's particular coordinates. Einstein's theory of relativity is really about finding an invariant description of physical phenomena. True, Einstein agreed with the idea that his theory would have been better named "*Invariante theorie*." But the term "relativity" was already entrenched at the time for him to change.

D. "The uncertainty principle" is another frequently abused term. It is sometimes interpreted as a limitation on observers and their ability to make measurements.

E. But it is not about intrinsic limitations on any one particular measurement; it is about the inability to precisely measure particular pairs of quantities simultaneously? The first interpretation is perhaps more engaging from a philosophical or political perspective. It's just not what the science is about.



F. Even the word "theory" can be a problem. Unlike most people, who use the word to describe a passing conjecture that they often regard as suspect, physicists have very specific ideas in mind when they talk about theories. For physicists, theories entail a definite physical framework embodied in a set of fundamental assumptions about the world that lead to a

specific set of equations and predictions — ones that are borne out by successful predictions. Theories aren't necessarily shown to be correct or complete immediately. Even Einstein took the better part of a decade to develop the correct version of his theory of general relativity. But eventually both the ideas and the measurements settle down and theories are either proven correct, abandoned or absorbed into other, more encompassing theories.

G. "Global warming" is another example of problematic terminology. Climatologists predict more drastic fluctuations in temperature and rainfall — not necessarily that every place will be warmer. The name sometimes subverts the debate, since it lets people argue that their winter was worse, so how could

there be global warming? Clearly "global climate change" would have been a better name. But not all problems stem solely from poor word choices. Some stem from the intrinsically complex nature of much of modern science. Science sometimes transcends this limitation: remarkably, chemists were able to detail the precise chemical processes involved in the destruction of the ozone layer, making the evidence that chlorofluorocarbon gases (Freon, for example) were destroying the ozone layer indisputable.

H. A better understanding of the mathematical significance of results and less insistence on a simple story would help to clarify many scientific discussions. For



several months, Harvard was tortured months. Harvard was tortured by empty debates over the relative intrinsic scientific abilities of men and women. One of the more amusing aspects of the discussion was that those who believed in the differences and those who didn't used the same evidence about gender-specific special ability. How could that be? The

answer is that the data shows no substantial effects. Social factors might account for these tiny differences, which in any case have an unclear connection to scientific ability. Not much of a headline when phrased that way, is it? Each type of science has its own source of complexity and potential for miscommunication. Yet there are steps we can take to improve public understanding in all cases. The first would be to inculcate greater understanding and acceptance of indirect scientific evidence. The information from an unmanned space mission is no less legitimate than the information from one in which people are on board.

I. This doesn't mean never questioning an interpretation, but it also doesn't mean equating indirect evidence with blind belief, as people sometimes suggest. Second, we might need different standards for evaluating science with urgent policy implications than research with purely theoretical value. When scientists say they are not certain about their predictions, it doesn't necessarily mean they've found nothing substantial. It would be better if scientists were more open about the mathematical significance of their results and if the public didn't treat math as quite so scary; statistics and errors, which tell us the uncertainty in a measurement, give us the tools to evaluate new developments fairly.

J. But most important, people have to recognize that science can be complex. If we accept only simple stories, the description will necessarily be distorted. When advances are subtle or complicated, scientists should be willing to go the extra distance to give proper explanations and patient about the truth. Even so,

some difficulties are unavoidable. Most developments reflect work in progress, so the story is complex because no one yet knows the big picture.

Questions 27-31

Choose the correct letter, A, B, c or D.

Write your answers in boxes 27-31 on your answer sheet.

27 Why the faithful science communication Important?

A Science plays an increasingly significant role in people's lives.

B Science is fraught with challenges public are interested in.

C The nature of complexity in science communication leads to confusion.

D Scientific inventions are more important than ever before.

28 What is the reason that the author believe for the biggest challenges for science reporting

A phenomenon such as global warming, cancer research, diet studies are too complex

B Scientists themselves often only partly understand the *Theory of Evolution*

C Scientists do not totally comprehend the meaning of certain scientific evolution

D Scientists themselves often partly understand the esoteric communication nature

29 According to the 3rd paragraph, the reference to the term and example of "theory of relativity" is to demonstrate

A theory of relativity is about an invariant physical phenomenon

B common people may be misled by the inaccurate choice of scientific phrase

C the term "relativity," is designed to be misleading public

D everything is relative and there is no absolutes existence

30 Which one Is a good example of appropriate word choice:

A Scientific theory for ***uncertainty principle***

B phenomenon of ***Global warming***

C the importance of ***ozone layer***

D ***Freon's*** destructive process on environmental

31 What Is surprising finding of the Harvard debates In the passage?

A There are equal intrinsic scientific abilities of men and women.

B The proof applied by both sides seemed to be of no big difference,

C The scientific data usually shows no substantial figures to support a debated idea.

D Social factors might have a clear connection to scientific ability.

Questions 32-35

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

In boxes 32-35 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*

32 "Global warming" scientifically refers to greater fluctuations in temperature and rainfall rather than a universal temperature rise.

33 More media coverage of "global warming" would help public to recognize the phenomenon.

34 Harvard debates should focus more on female scientist and male scientists

35 Public understanding and acceptance of indirect scientific evidence in all cases would lead to confusion

Questions 36-40

Complete the following summary of the paragraphs of Reading Passage, using no more than two words from the Reading Passage for each answer. Write your answers in boxes 36-40 on your answer sheet.

Science Communication is fraught with challenges that can easily distort discussions, leading to unnecessary confusion and misunderstandings. Firstly, Ambiguous 36.....are the source of some misunderstandings. Common people without proper training do not understand clearly or deeply a specific scientific meaning via the 37.....scientists often employed. Besides, the measurements any 38.....makes can not be confined to describe in a(n) constant 39.....yet the phenomenon can be. What's more, even the word "theory" can be a problem. Theories aren't necessarily shown to be correct or complete immediately since scientists often evolved better versions of specific theories, a good example can be the theory of 40 Thus, most importantly people have to recognize that science can be complex.

TEST 8

READING PASSAGE 1

Can We Hold Back the Flood?

A. LAST winter's floods on the rivers of central Europe were among the worst since the Middle Ages, and as winter storms return, the spectre of floods is returning too. Just weeks ago, the river Rhone in south-east France burst its banks, driving 15,000 people from their homes, and worse could be on the way.



Traditionally, river engineers have gone for Plan A: get rid of the water fast, draining it off the land and down to the sea in tall-sided rivers re-engineered as high-performance drains. But however big they dig city drains, however wide and straight they make the rivers, and however high they build the banks, the floods keep coming back to taunt them, from the Mississippi to the Danube. And when the floods come, they seem to be worse than ever.

B. No wonder engineers are turning to Plan B: sap the water's destructive strength by dispersing it into fields, forgotten lakes, flood plains and aquifers. Back in the days when rivers took a more tortuous path to the sea, flood waters lost impetus and volume while meandering across flood plains and idling through wetlands and inland deltas. But today the water tends to have an unimpeded journey to the sea. And this means that when it rams in the uplands, the water comes down all at once. Worse, whenever we close off more flood plain, the river's flow farther downstream becomes more violent and uncontrollable. Dykes are only as good as their weakest link - and the water will unerringly find it.

C. Today, the river has lost 7 per cent of its original length and runs up to a third faster. When it rains hard in the Alps, the peak flows from several tributaries coincide in the main river, where once they arrived separately. And with four-fifths of the lower Rhine's flood plain barricaded off, the waters rise ever higher. The result is more frequent flooding that does ever-greater damage to the homes, offices and roads that sit on the flood plain. Much the same has happened in the US on the mighty Mississippi, which drains the world's second largest river catchment into the Gulf of Mexico.

D. The European Union is trying to improve rain forecasts and more accurately model how intense rains swell rivers. That may help cities prepare, but it won't stop the floods. To do that, say hydrologists, you need a new approach to engineering not just



Agency - country £1 billion - puts it like this: "The focus is now on working with the forces of nature. Towering concrete walls are out, and new wetlands are in." To help keep London's upstream and reflooding 10 square km outside Oxford. Nearer to London it has spent £100 million creating new wetlands and a relief channel across 16 kilometres.

E. The same is taking place on a much grander scale in Austria, in one of Europe's largest river restorations to date. Engineers regenerating flood plains along 60 the river Drava as it exits the Alps. They are the river bed and channelling it back into meanders, oxbow lakes and backwaters willows. The engineers calculate that the plain can now store up to 10 million cubic metres of flood waters and slow storm surges coming out of the Alps by more than an hour, protecting towns as far downstream as Slovenia and Croatia.



are kilometres of also widening abandoned overhung with restored flood

F. "Rivers have to be allowed to take more space. They have to be turned from flood-chutes into flood-foilers," says Nienhuis. And the Dutch, for whom preventing floods is a matter of survival, have gone furthest.



A nation built largely on drained marshes and seabed had the fright of its life in 1993 when the Rhine almost overwhelmed it. The same happened again in 1995, when a quarter of a million people were evacuated from the Netherlands. But a new breed of "soft engineers" wants our

cities to become porous, and Berlin is theft governed by tough new rules to prevent its drains becoming overloaded after heavy rains. Harald Kraft, an architect working in the city, says: "We now see rainwater as giant Potsdamer Platz, a huge new commercial redevelopment by DaimlerChrysler in the heart of the city.

G. Los Angeles has spent billions of dollars digging huge drains and concreting river beds to carry away the water from occasional intense storms. "In LA we receive half the water we need in rainfall, and we throw it away. Then we spend hundreds of millions to import water," says Andy Lipkis, an LA environmentalist who kick-started the idea of the porous city by showing it could work on one house. Lipkis, along with citizens groups like Friends of the Los Angeles River and Unpaved LA, want to beat the urban flood hazard and fill the taps by holding onto the city's flood water. And it's not just a pipe dream. The authorities this year launched a \$100 million scheme to road-test the porous city in one flood-hit community in Sun Valley. The plan is to catch the rain that falls on thousands of driveways, parking lots and rooftops in the valley. Trees will soak up water from parking lots. Homes and public buildings will capture roof water to irrigate gardens and parks. And road drains will empty into old gravel pits and other leaky places that should recharge the city's underground water reserves. Result: less flooding and more water for the city. Plan B says every city should be porous,

every river should have room to flood naturally and every coastline should be left to build its own defences. It sounds expensive and utopian, until you realise how much we spend trying to drain cities and protect our watery margins - and how bad we are at it.

Questions 1-6

The reading Passage has seven paragraphs A-G. Which paragraph contains the following information? Write the correct letter A-G, in boxes 1-6 on your answer sheet

- 1 A new approach carried out in the UK
- 2 Reasons why twisty path and dykes failed
- 3 Illustration of an alternative Plan in LA which seems much unrealistic
- 4 Traditional way of tackling flood
- 5 Effort made in Netherlands and Germany
- 6 One project on a river benefits three nations

Questions 7-11

Summary

Complete the following summary of the paragraphs of Reading Passage, using no more than two words from the Reading Passage for each answer. Write your answers in boxes 7-11 on your answer sheet.

Flood makes river shorter than it used to be, which means faster speed and more damage to constructions on flood plain. Not only European river poses such threat but the same things happens to the powerful 7 in the US.

In Europe, one innovative approach carried out by UK's Environment Agency, for example a wetland instead of concrete walls is generated not far from the city of 8 to protect it from flooding. In 1995, Rhine flooded again and

thousands of people left the country of _____ 9 _____. A league of engineers suggested that cities should be porous, _____ 10 _____ set an good example for others. Another city devastated by heavy storms casually is _____ 11 _____, though its government pours billions of dollars each year in order to solve the problem.

Questions 12-13

Choose TWO correct letter, write your answers in boxes 12-13 on your answer sheet

What TWO benefits will the new approach in the UK and Austria bring to US according to this passage?

- A We can prepare before flood comes
- B It may stop the flood involving the whole area
- C Decrease strong rainfalls around Alps simply by engineering constructions
- D Reserve water to protect downstream towns E Store tons of water in downstream area

READING PASSAGE 2

When the Tulip Bubble Burst

Tulips are spring-blooming perennials that grow from bulbs. Depending on the species, tulip plants can grow as short as 4 inches (10 cm) or as high as 28 inches (71 cm). The tulip's large flowers usually bloom on scapes or sub-scapose stems that lack bracts. Most tulips produce only one flower per stem, but a few species bear multiple flowers on their scapes (e.g. *Tulipa turkestanica*). The showy, generally cup or star-shaped tulip flower has three petals and three sepals, which are often termed tepals because they are nearly identical. These six tepals are often marked on the interior surface near the bases



with darker colorings. Tulip flowers come in a wide variety of colors, except pure blue (several tulips with "blue" in the name have a faint violet hue)

A. Long before anyone ever heard of Qualcomm, CMGI, Cisco Systems, or the other high-tech stocks that have soared during the current bull market, there was Semper Augustus. Both more prosaic and more sublime than any stock or bond, it was a tulip of extraordinary beauty, its midnight-blue petals topped by a band of pure white and accented with crimson flares. To denizens of 17th century Holland, little was as desirable.

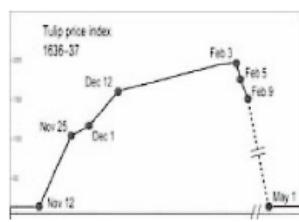
B. Around 1624, the Amsterdam man who owned the only dozen specimens was offered 3,000 guilders for one bulb. While there's no accurate way to render that in today's greenbacks, the sum was roughly equal to the annual income of a wealthy merchant. (A few years later, Rembrandt received about half that amount for painting *The Night Watch*.) Yet the bulb's owner, whose name is now lost to history, nixed the offer.

C. Who was crazier, the tulip lover who refused to sell for a small fortune or the one who was willing to splurge. That's a question that springs to mind after reading *Tulip Mania: The Story of the World's Most Coveted Flower and the Extraordinary Passions It Aroused* by British journalist Mike Dash. In recent years, as investors have intentionally forgotten everything they learned in *Investing 101* in order to load up on unproved, unprofitable dot-com issues, tulip mania has been invoked frequently. In this concise, artfully written account, Dash tells the real history behind the buzzword and in doing so, offers a cautionary tale for our times.

D. The Dutch were not the first to go gaga over the tulip. Long before the first tulip bloomed in Europe-in Bavaria, it turns out, in 1559-the flower had enchanted the Persians and bewitched the rulers of the Ottoman Empire. It was in Holland, however, that the passion for tulips found its most fertile ground, for reasons that had little to do with horticulture.

E. Holland in the early 17th century was embarking on its Golden Age. Resources that had just a few years earlier gone toward fighting for independence from Spain now flowed into commerce. Amsterdam merchants were at the center of the lucrative East Indies trade, where a single voyage could yield profits of 400%. They displayed their success by erecting grand estates surrounded by flower gardens. The Dutch population seemed torn by two contradictory impulses: a horror of living beyond one's means and the love of a long shot.

F. Enter the tulip. "It is impossible to comprehend the tulip mania without understanding just how different tulips were from every other flower known to horticulturists in the 17th century," says Dash. "The colors they exhibited were more intense and more concentrated than those of ordinary plants." Despite the outlandish prices commanded by rare bulbs, ordinary tulips were sold by the pound. Around 1630, however, a new type of tulip fancier appeared, lured by tales of fat profits. These "florists," or professional tulip traders, sought out flower lovers and speculators alike. But if the supply of tulip buyers grew quickly, the supply of bulbs did not. The tulip was a conspirator in the supply squeeze: It takes seven years to grow one from seed. And while bulbs can produce two or three clones, or "offsets," annually, the mother bulb only lasts a few years.



G. Bulb prices rose steadily throughout the 1630s, as ever more speculators into the market. Weavers and farmers mortgaged whatever they could to raise cash to begin trading. In 1633, a farmhouse in Hoorn changed hands for three rare bulbs. By 1636 any tulip—even bulbs recently considered garbage—could be sold off, often for hundreds of guilders. A futures market for bulbs existed, and tulip traders could be found conducting their business in hundreds of Dutch taverns. Tulip mania reached its peak during the winter of 1636-37, when some bulbs were changing hands ten times in a day. The zenith came early that winter, at an auction to benefit seven orphans whose only asset was 70 fine tulips left by their father. One, a rare Violetten Admirael van Enkhuizen bulb that was about to split in two, sold for 5,200 guilders, the all-time record. All told, the flowers brought in nearly 53,000 guilders.

H. Soon after, the tulip market crashed utterly, spectacularly. It began in Haarlem, at a routine bulb auction when, for the first time, the greater fool refused to show up and pay. Within days, the panic had spread across the country. Despite the efforts of traders to prop up demand, the market for tulips evaporated. Flowers that had commanded 5,000 guilders a few weeks before now fetched one-hundredth that amount. Tulip mania is not without flaws. Dash dwells too long on the tulip's migration from Asia to Holland. But he does a service with this illuminating, accessible account of incredible financial folly.

I. Tulip mania differed in one crucial aspect from the dot-com craze that grips our attention today: Even at its height, the Amsterdam Stock Exchange, well-established in 1630, wouldn't touch tulips. "The speculation in tulip bulbs always existed at the margins of Dutch economic life," Dash writes. After the market

crashed, a compromise was brokered that let most traders settle their debts for a fraction of their liability. The overall fallout on the Dutch economy was negligible. Will we say the same when Wall Street's current obsession finally runs its course?

Questions 14-18

The reading Passage has seven paragraphs A-I.

Which paragraph contains the following information?

Write the correct letter A-I, in boxes 14-18 on your answer sheet.

- 14 Difference between bubble burst impacts by tulip and by high-tech shares
- 15 Spread of tulip before 17th century
- 16 Indication of money offered for rare bulb in 17th century
- 17 Tulip was treated as money in Holland
- 18 Comparison made between tulip and other plants

Questions 19-23

Do the following statements agree with the information given in Reading Passage 2? In boxes 19-23 on your answer sheet, write

TRUE	<i>if the statement is true</i>
FALSE	<i>if the statement is false</i>
NOT GIVEN	<i>if the information is not given in the passage</i>

- 19 In 1624, all the tulip collection belonged to a man in Amsterdam.
- 20 Tulip was first planted in Holland according to this passage.
- 21 Popularity of Tulip in Holland was much higher than any other countries in 17th century.
- 22 Holland was the most wealthy country in the world in 17th century.

23 From 1630, Amsterdam Stock Exchange started to regulate Tulips exchange market.

Questions 24-27

Summary

Complete the following summary of the paragraphs of Reading Passage, using no more than two words from the Reading Passage for each answer. Write your answers in boxes 24-27 on your answer sheet.

Dutch concentrated on gaining independence by _____ 24 _____ against Spain in the early 17th century; consequently spare resources entered the area of _____ 25 _____. Prosperous traders demonstrated their status by building great _____ 26 ____ and with gardens in surroundings. Attracted by the success of profit on tulip, traders kept looking for _____ 27 _____ and speculator for sale.

READING PASSAGE 3

The Secrets of Persuasion



Robert Cialdini

A. Our mother may have told you the secret to getting what you ask for was to say please. The reality is rather more surprising. Adam Dudding talks to a psychologist who has made a life's work from the science of persuasion. Some scientists peer at things through high-powered microscopes. Others goad rats through mazes, or mix bubbling fluids in glass beakers. Robert Cialdini, for his part, does curious things with towels, and believes that by doing so he is discovering important insights into how society works.

B. Cialdini's towel experiments (more of them later), are part of his research into how we persuade others to say yes. He wants to know why some people have a knack for bending the will of others, be it a telephone cold-caller talking to you about timeshares, or a parent whose children are compliant even without threats of extreme violence. While he's anxious not to be seen as the man who's written the bible for snake-oil salesmen, for decades the Arizona State University social psychology professor has been creating systems for the principles and methods of persuasion, and writing bestsellers about them. Some people seem to be born with the skills; Cialdini's claim is that by applying a little science, even those of us who aren't should be able to get our own way more often. "All my life I've been an easy mark for the blandishment of salespeople and fundraisers and I'd always wondered why they could get me to buy things I didn't want and give to causes I hadn't heard of," says Cialdini on the phone from London, where he is plugging his latest book.



C. He found that laboratory experiments on the psychology of persuasion were telling only part of the story, so he began to research influence in the real world, enrolling in sales-training programmes: "I learn how to sell automobiles from a lot, how to sell insurance from an office, how to sell encyclopedias door to door." He concluded there were six general "principles of influence" and has since put them to the test under slightly more scientific conditions. Most recently, that has meant messing about with towels. Many hotels leave a little card in each bathroom asking guests to reuse towels and thus conserve water and electricity and reduce pollution. Cialdini and his colleagues wanted to test the relative effectiveness of different words on those cards. Would guests be motivated to co-operate simply because it would help save the planet, or were other factors more compelling? To test this, the researchers changed the card's message from an environmental one to the simple (and truthful) statement that the majority of guests at the hotel had reused their towel at least once. Guests given this message were 26% more likely to reuse their towels than those given the old message. In Cialdini's book "***Yes! 50 Secrets from the Science of Persuasion***", co-written with another social scientist and a business consultant, he explains that guests were responding to the persuasive force of "social proof", the idea that our decisions are strongly influenced by what we believe other people like us are doing.

D. So much for towels. Cialdini has also learnt a lot from confectionery. Yes! cites the work of New Jersey behavioural scientist David Strohmetz, who wanted to see how restaurant patrons would respond to a ridiculously small favour from their food server, in the form of an after-dinner chocolate for each diner. The secret, it seems, is in how you give the chocolate. When the chocolates arrived in a heap with the bill, tips went up a miserly 3% compared to when no chocolate was given. But when the chocolates were dropped individually in front of each diner, tips went up 14%. The scientific breakthrough, though, came when the waitress gave each diner one chocolate, headed away from the table then doubled back to give them one more each, as if such generosity had only just occurred to her. Tips went up 23%. This is "reciprocity" in action: we want to return favours done to us, often without bothering to calculate the relative value of what is being received and given.

Reciprocity

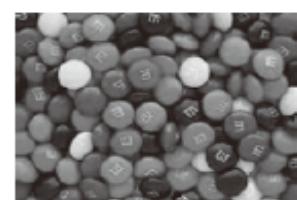


E. Geeling Ng, operations manager at Auckland's Soul Bar, says she's never heard of Kiwi waiting staff using such a cynical trick, not least because New Zealand tipping culture is so different from that of the US: "If you did that in New Zealand, as diners were leaving they'd say 'can we have some more?'" But she certainly understands the general principle of reciprocity. The way to a diner's heart is "to give them something they're not expecting in the way of service. It might be something as small as leaving a mint on their plate, or it might be remembering that last time they were in they wanted their water with no ice and no lemon. "In America it would translate into an instant tip. In New Zealand it translates into a huge smile and thank you." And no doubt, return visits.

THE FIVE PRINCIPLES OF PERSUASION

F. Reciprocity: People want to give back to those who have given to them. The trick here is to get in first. That's why charities put a crummy pen inside a mailout, and why smiling women in supermarkets hand out dollops of free food. Scarcity: People want more of things they can have less of. Advertisers ruthlessly exploit scarcity ("limit four per customer", "sale must end soon"), and Cialdini suggests parents do too: "Kids want things that are less available, so say 'this is an unusual opportunity; you can only have this for a certain time'."

G. Authority: We trust people who know what they're talking about. So inform people honestly of your credentials before you set out to influence them. "You'd be surprised how many people fail to do that," says



Cialdini. "They feel it's impolite to talk about their expertise." In one study, therapists whose patients wouldn't do their exercises were advised to display their qualification certificates prominently. They did, and experienced an immediate leap in patient compliance.

H. Commitment/consistency: We want to act in a way that is consistent with the commitments we have already made. Exploit this to get a higher sign-up rate when soliciting charitable donations. First ask workmates if they think they will sponsor you on your egg-and-spoon marathon. Later, return with the sponsorship form to those who said yes and remind them of their earlier commitment/

I. Liking: We say yes more often to people we like. Obvious enough, but reasons for "liking" can be weird. In one study, people were sent survey forms and asked to return them to a named researcher. When the researcher gave a fake name resembling that of the subject (eg, Cynthia Johnson is sent a survey by "Cindy Johansen"), surveys were twice as likely to be completed. We favour people who resemble US, even if the resemblance is as minor as the sound of their name.

J. Social proof: We decide what to do by looking around to see what others just like US are doing. Useful for parents, says Cialdini. "Find groups of children who are behaving in a way that you would like your child to, because the child looks to the side, rather than at you." More perniciously, social proof is the force underpinning the competitive materialism of "keeping up with the Joneses"

Questions 28-31

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

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

28. The main purpose of Cialdini's research of writing is to

- A. explain the reason why researcher should investigate in person
- B. explore the secret that why some people become the famous sales person
- C. help people to sell products
- D. prove maybe there is a science in the psychology of persuasion

29. Which of statement is CORRECT according to Ciadini's research methodology

- A. he checked data in a lot of latest books
- B. he conducted this experiment in laboratory
- C. he interviewed and contact with many sales people
- D. he made lot phone calls collecting what he wants to know

30. Which of the followings is CORRECT according to towel experiment in the passage?

- A. Different hotel guests act in a different response
- B. Most guests act by idea of environment preservation
- C. more customers tend to cooperate as the message requires than simply act environmentally
- D. people tend to follow the hotel's original message more

31. Which of the followings is CORRECT according to the candy shop experiment in the passage?

- A. Presenting way affects diner's tips
- B. Regular customer gives tips more than irregulars
- C. People give tips only when offered chocolate
- D. Chocolate with bill got higher tips

Questions 32-35

Do the following statements agree with the information given in Reading Passage 3? In boxes 32-35 on your answer sheet, write

TRUE	<i>if the Statement is true</i>
FALSE	<i>if the statement is false</i>
NOT GIVEN	<i>if the information is not given in the passage</i>

- 32 Robert Cialdini experienced "principles of influence" himself in realistic life.
- 33 Principle of persuasion has different types in different countries.
- 34 In New Zealand, people tend to give tips to attendants after being served a chocolate.
- 35 Elder generation of New Zealand is easily attracted by extra service of restaurants by principle of reciprocity.

Questions 36-40

Use the information in the passage to match the category (listed A-E) with correct description below. Write the appropriate letters A-E in boxes 32-37 on answer sheet.

NB You may use any letter more than once.

- A. Reciprocity of scarcity
 - B. Authority
 - C. previous comment
 - D. Liking
-

- 36 Some expert may reveal qualification in front of clients.
- 37 Parents tend to say something that other kids are doing the same.
- 38 Advertisers ruthlessly exploit the limitation of chances
- 39 Use a familiar name in a survey.
- 40 Ask colleagues to offer a helping hand

TEST 9

READING PASSAGE 1

MENTAL GYMNASTICS

A. THE working day has just started at the head office of Barclays Bank in London. Seventeen staff are helping themselves to a buffet breakfast as young psychologist Sebastian Bailey enters the room to begin the morning's framing session. But this is no ordinary training session. He's not here to sharpen their finance or management skills. He's here to exercise their brains.



B. Today's workout, organised by a company called the Mind Gym in London, is entitled "having presence". What follows is an intense 90-minute session in which this rather abstract concept is gradually broken down into a concrete set of feelings, mental tricks and behaviours. At one point the bankers are instructed to shut their eyes and visualise themselves filling the room and then the building. They finish up by walking around the room acting out various levels of presence, from low-key to over the top.

C. It's easy to poke fun. Yet similar mental workouts are happening in corporate seminar rooms around the globe. The Mind Gym alone offers some 70 different sessions, including ones on mental stamina, creativity for logical thinkers and "zoom learning". Other outfits draw more directly on the exercise analogy, offering "neurobics" courses with names like "brain sets" and "cerebral fitness". Then there are books with titles like Pumping Irons, full of brainteasers that claim to "flex your mind", and software packages offering memory and spatial-awareness games.

D. But whatever the style, the companies' sales pitch is invariably the same—follow our routines to shape and sculpt your brain or mind, just as you might tone and train your body. And, of course, they nearly all claim that their mental workouts draw on serious scientific research and thinking into how the brain works.

E. One outfit, Brainenergy of Cambridge, Massachusetts (motto: "Because your grey matter matters") puts it like this: "Studies have shown that mental exercise

can cause changes in brain anatomy and brain chemistry which promote increased mental efficiency and clarity. The neuroscience is cutting-edge." And on its website, Mind Gym trades on a quote from Susan Greenfield, one of Britain's best known neuroscientists: "It's a bit like going to the gym, if you exercise your brain it will grow."

F. Indeed, die Mind Gym originally planned to hold its sessions in a local health club, until its founders realised where the real money was to be made. Modem companies need flexible, bright thinkers and will seize on anything that claims to create them, especially if it looks like a quick fix backed by science. But are neurobic workouts really backed by science? And do we need them?

G. Nor is there anything remotely high-tech about what Lawrence Katz, co-author of *Keep Your Brain Alive*, recommends. Katz, a neurobiologist at Duke University Medical School in North Carolina, argues that just as many of US fail to get enough physical exercise, so we also lack sufficient mental stimulation to keep our brain in trim. Sine we are busy with jobs, family and housework. But most of this activity is repetitive routine. And any leisure time is spent slumped in front of the TV.

H. So, read a book upside down. Write or brush your teeth with your wrong hand. Feel your way around the room with your eyes shut. Sniff vanilla essence while listening intently to orchestral music. Anything, says Katz, to break your normal mental routine. It will help invigorate your brain, encouraging its cells to make new connections and pump out neurotrophins, substances that feed and sustain brain circuits.

I. Well, up to a point it will. "What I'm really talking about is brain maintenance rather than bulking up your IQ," Katz adds. Neurobics, in other words, is about letting your brain fulfill its potential. It cannot create super-brains. Can it achieve even that much, though? Certainly the brain is an organ that can adapt to the demands placed on it. Tests on animal brain tissue, for example, have repeatedly shown that electrically stimulating the synapses that connect nerve cells thought to be crucial to learning and reasoning, makes them stronger and more responsive. Brain scans suggest we use a lot more of our grey matter when carrying out new or strange tasks than when we're doing well-rehearsed ones. Rats raised in bright cages with toys sprout more neural connections than rats raised in bare cages— suggesting perhaps that novelty and variety could be crucial to a developing brain. Katz, And neurologists have proved time and again that people who lose brain cells suddenly during a stroke often sprout new

connections to compensate for the loss—especially if they undergo extensive therapy to overcome any paralysis.

J. Guy Claxton, an educational psychologist at the University of Bristol, dismisses most of the neurological approaches as "neuro-babble". Nevertheless, there are specific mental skills we can learn, he contends. Desirable attributes such as creativity, mental flexibility, and even motivation, are not the fixed faculties that most of us think. They are thought habits that can be learned. The problem, says Claxton, is that most of us never get proper training in these skills. We develop our own private set of mental strategies for tackling tasks and never learn anything explicitly. Worse still, because any learned skill—even driving a car or brushing our teeth—quickly sinks out of consciousness, we can no longer see the very thought habits we're relying upon. Our mental tools become invisible to us.

K. Claxton is the academic adviser to the Mind Gym. So not surprisingly, the company espouses his solution—that we must return our thought patterns to a conscious level, becoming aware of the details of how we usually think. Only then can we start to practise better thought patterns, until eventually these become our new habits. Switching metaphors, picture not gym classes, but tennis or football coaching.

L. In practice, the training can seem quite mundane. For example, in one of the eight different creativity workouts offered by the Mind Gym—entitled "creativity for logical thinkers" one of the mental strategies taught is to make a sensible suggestion, then immediately pose its opposite. So, asked to spend five minutes inventing a new pizza, a group soon comes up with no topping, sweet topping, cold topping, price based on time of day, flat-rate prices and so on.

M. Bailey agrees that the trick is simple. But it is surprising how few such tricks people have to call upon when they are suddenly asked to be creative: "They tend to just label themselves as uncreative, not realising that there are techniques that every creative person employs." Bailey says the aim is to introduce people to half a dozen or so such strategies in a session so that what at first seems like a dauntingly abstract mental task becomes a set of concrete, learnable behaviours. He admits this is not a short cut to genius. Neurologically, some people do start with quicker circuits or greater handling capacity. However, with the right kind of training he thinks we can dramatically increase how efficiently we use it.

N. It is hard to prove that the training itself is effective. How do you measure a change in an employee's creativity levels, or memory skills? But staff certainly

report feeling that such classes have opened their eyes. So, neurological boosting or psychological training? At the moment you can pay your money and take your choice. Claxton for one believes there is no reason why schools and universities shouldn't spend more time teaching basic thinking skills, rather than trying to stuff heads with facts and hoping that effective thought habits are somehow absorbed by osmosis.

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

YES	<i>if the statement is true</i>
NO	<i>if the statement is false</i>
NOT GIVEN	<i>if the information is not given in the passage</i>

- 1 Mind Gym coach instructed employees to imagine that they are the building.
- 2 Mind Gym uses the similar marketing theory that is used all round
- 3 Susan Greenfield is the founder of Mind Gym.
- 4 All business and industries are using Mind Gym's session globally.
- 5 According to Mind Gym, extensive scientific background supports their mental training sessions.

Questions 6-13

Use the information in the passage to match the people (listed A-D) with opinions or deeds below. Write the appropriate letters A-D in boxes 6-13 on your answer sheet.

A. Guy Claxton

B. Sebastian Bailey

C. Susan Greenfield

D. Lawrence Katz

NB You may use any letter more than once

- 6 We do not have enough inspiration to keep our brain fit.
- 7 The more you exercise your brain like exercise in the gym, the more brain will grow.
- 8 Exercise can keep your brain health instead of improving someone's IQ.
- 9 It is valuable for schools to teach students about creative skills besides basic known knowledge.
- 10 We can develop new neuron connections when we lose old connections via certain treatment.
- 11 People usually mark themselves as not creative before figuring out there are approaches for each person.
- 12 An instructor in Mind Gym who guided the employees to exercise.
- 13 Majority of people don't have appropriate skills-training for brain.

READING PASSAGE 2

Finding Our Way

A. "Drive 200 yards, and then turn right," says the car's computer voice. You relax in the driver's seat, follow the directions and reach your destination without error. It's certainly nice to have the Global Positioning System (GPS) to direct you to within a few yards of your goal. Yet if the satellite service's digital maps become even slightly outdated, you can become lost. Then you have to rely on the ancient human skill



of navigating in three-dimensional space. Luckily, your biological finder has an important advantage over GPS: it does not go awry if only one part of the guidance system goes wrong, because it works in various ways. You can ask questions of people on the sidewalk. Or follow a street that looks familiar. Or rely on a navigational rubric: "If I keep the East River on my left, I will eventually cross 34th Street." The human positioning system is flexible and capable of learning. Anyone who knows the way from point A to point B—and from A to C—can probably figure out how to get from B to c, too.

B. But how does this complex cognitive system really work? Researchers are looking at several strategies people use to orient themselves in space: guidance, path integration and route following. We may use all three or combinations thereof. And as experts learn more about these navigational skills, they are making the case that our abilities may underlie our powers of memory and logical thinking. Grand Central, Please Imagine that you have arrived in a place you have never visited-New York City. You get off the train at Grand Central Terminal in midtown Manhattan. You have a few hours to explore before you must return for your ride home. You head uptown to see popular spots you have been told about: Rockefeller Center, Central Park, the Metropolitan Museum of Art. You meander in and out of shops along the way. Suddenly, it is time to get back to the station. But how?



C. If you ask passersby for help, most likely you will receive information in many different forms. A person who orients herself by a prominent landmark would gesture southward: "Look down there. See the tall, broad MetLife Building? Head for that "the station is right below it." Neurologists call this navigational approach "guidance," meaning that a landmark visible from a distance serves as the marker for one's destination.

D. Another city dweller might say: "What places do you remember passing? ... Okay. Go toward the end of Central Park, then walk down to St. Patrick's Cathedral. A few more blocks, and Grand Central will be off to your left." In this case, you are pointed toward the most recent place you recall, and you aim for it. Once there you head for the next notable place and so on, retracing your path. Your brain is adding together the individual legs of your trek into a cumulative progress report. Researchers call this strategy "path integration." Many animals rely primarily on path integration to get around, including insects, spiders, crabs and rodents. The desert ants of the genus Cataglyphis employ this method to return from foraging as far as 100 yards away. They note the general direction

they came from and retrace their steps, using the polarization of sunlight to orient themselves even under overcast skies. On their way back they are faithful to this inner homing vector. Even when a scientist picks up an ant and puts it in a totally different spot, the insect stubbornly proceeds in the originally determined direction until it has gone "back" all of the distance it wandered from its nest. Only then does the ant realize it has not succeeded, and it begins to walk in successively larger loops to find its way home.



E. Whether it is trying to get back to the anthill or the train station, any animal using path integration must keep track of its own movements so it knows, while returning, which segments it has already completed. As you move, your brain gathers data from your environment—sights, sounds, smells, lighting, muscle contractions, a sense of time passing—to determine which way your body has gone. The church spire, the sizzling sausages on that vendor's grill, the open courtyard, and the train station—all represent snapshots of memorable junctures during your journey.

F. In addition to guidance and path integration, we use a third method for finding our way. An office worker you approach for help on a Manhattan street corner might say: "Walk straight down Fifth, turn left on 47th, turn right on Park, go through the walkway under the Helmsley Building, then cross the street to the MetLife Building into Grand Central." This strategy, called route following, uses landmarks such as buildings and street names, plus directions-straight, turn, go through—for reaching intermediate points. Route following is more precise than guidance or path integration, but if you forget the details and take a wrong turn, the only way to recover is to backtrack until you reach a familiar spot, because you do not know the general direction or have a reference landmark for your goal. The route-following navigation strategy truly challenges the brain. We have to keep all the landmarks and intermediate directions in our head. It is the most detailed and therefore most reliable method, but it can be undone by routine memory lapses. With path integration, our cognitive memory is less burdened; it has to deal with only a few general instructions and the homing vector. Path integration works because it relies most fundamentally on our knowledge of our body's general direction of movement, and we always have access to these inputs. Nevertheless, people often choose to give route-following directions, in part because saying "Go straight that way!" just does not work in our complex, man-made surroundings.

G. Road Map or Metaphor? On your next visit to Manhattan you will rely on your



memory to get around. Most likely you will use guidance, path integration and route following in various combinations. But how exactly do these constructs deliver concrete directions? Do we humans have, as an image of the real world, a kind of road map in our heads—with symbols for cities, train stations and churches; thick lines for highways; narrow lines for local streets? Neurobiologists and cognitive psychologists do call the portion of our memory that controls navigation a "cognitive map." The map metaphor is obviously seductive: maps are the easiest way to present geographic information for convenient visual inspection. In many cultures, maps were developed before writing, and today they are used in almost every society. It is even possible that maps derive from a universal way in which our spatial-memory networks are wired.

H. Yet the notion of a literal map in our heads may be misleading; a growing body of research implies that the cognitive map is mostly a metaphor. It may be more like a hierarchical structure of relationships. To get back to Grand Central, you first envision the large scale—that is, you visualize the general direction of the station. Within that system you then imagine the route to the last place you remember. After that, you observe your nearby surroundings to pick out a recognizable storefront or street corner that will send you toward that place. In this hierarchical, or nested, scheme, positions and distances are relative, in contrast with a road map, where the same information is shown in a geometrically precise scale.

Questions 14-18

Use the information in the passage to match the category of each navigation method (listed A-C) with correct statement. Write the appropriate letters A-C in boxes 14-18 on your answer sheet.

NB you may use any letter more than once

A. Guidance

B. Path integration,

C. Route following

- 14 Using basic direction from starting point and light intensity to move on.
- 15 Using combination of place and direction heading for destination.
- 16 Using an iconic building near your destination as orientation.
- 17 Using a retrace method from a known place if a mistake happens.
- 18 Using a passed spot as reference for a new integration.

Questions 19-21

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

Write your answers in boxes 19-21 on your answer sheet.

19. What does the ant of **Cataglyphis** respond if it has been taken to another location according to the passage?

- A. Changes the orientation sensors improvingly
- B. Releases biological scent for help from others
- C. Continues to move by the original orientation
- D. Totally gets lost once disturbed

20. Which of the followings is true about "cognitive map" in this passage?

- A. There is not obvious difference contrast by real map
- B. It exists in our head and is always correct
- C. It only exists under some cultures
- D. It was managed by brain memory

21. Which of following description of way findings correctly reflects the function of **cognitive map**?

- A. It visualises a virtual route in a large scope
- B. It reproduces an exact details of every landmark

- C. Observation plays a more important role
- D. Store or supermarket is a must in file map

Questions 22-26

Do the following statements agree with the information given in Reading Passage 2? In boxes 22-26 on your answer sheet, write

TRUE	<i>if the statement is true</i>
FALSE	<i>if the statement is false</i>
NOT GIVEN	<i>if the information is not given in the passage</i>

- 22 Biological navigation has a state of flexibility.
- 23 You will always receive good reaction when you ask direction.
- 24 When someone follows a route, he or she collects comprehensive perceptual information in mind on the way.
- 25 Path integration requires more thought from brain compared with route-following.
- 26 In a familiar surrounding, an exact map of where you are will automatically emerge in your head.

READING PASSAGE 3

Mystery in Easter

A. One of the world's most famous yet least visited archaeological sites, Easter Island



Island is a small, hilly, now treeless island of volcanic origin. Located in the Pacific Ocean at 27 degrees south of the equator and some 2200 miles (3600 kilometers) off the coast of Chile, it is considered to be the world's most remote inhabited island. The island is, technically speaking, a single massive volcano rising over ten thousand feet from the

Pacific Ocean floor. The island received its most well-known current name, Easter Island, from the Dutch sea captain Jacob Roggeveen who became the first European to visit Easter Sunday, April 5, 1722.



B. In the early 1950s, the Norwegian explorer Thor Heyerdahl popularized the idea that the island had been originally settled by advanced societies of Indians from the coast of South America. Extensive archaeological, ethnographic and linguistic research has conclusively shown this hypothesis to be inaccurate. It is now recognized that the original inhabitants of Easter Island are of Polynesian stock (DNA extracts from skeletons have confirmed this, that they most probably came from the Marquesas or Society islands, and that they arrived as early as 318 AD (carbon dating of reeds from a grave confirms this). At the time of their arrival, much of the island was forested, was teeming with land birds, and was perhaps the most productive breeding site for seabirds in the Polynesia region. Because of the plentiful bird, fish and plant food sources, the human population grew and gave rise to a rich religious and artistic culture.

C. That culture's most famous features are its enormous stone statues called moai, at least 288 of which once stood upon massive stone platforms called **ahu**. There are some 250 of



these **ahu** platforms spaced approximately one half mile apart and creating an almost unbroken line around the perimeter of the island. Another 600 moai statues, in various stages of completion, are scattered around the island, either in quarries or

along ancient roads between the quarries and the coastal areas where the statues were most often erected. Nearly all the moai are carved from the tough stone of the **Rano Raraku** volcano. The average statue is 14 feet and 6 inches tall and weighs 14 tons. Some moai were as large as 33 feet and weighed more than

80 tons. Depending upon the size of the statues, it has been estimated that between 50 and 150 people were needed to drag them across the countryside on sleds and rollers made from the island's trees.

D. Scholars are unable to definitively explain the function and use of the moai statues. It is assumed that their carving and erection derived from an idea rooted in similar practices found elsewhere in Polynesia but which evolved in a unique way on Easter Island. Archaeological and iconographic analysis indicates that the statue cult was based on an ideology of male, lineage-based authority incorporating anthropomorphic symbolism. The statues were thus symbols of authority and power, both religious and political. But they were not only symbols. To the people who erected and used them, they were actual repositories of sacred spirit. Carved stone and wooden objects in ancient Polynesian religions, when properly fashioned and ritually prepared, were believed to be charged by a magical spiritual essence called ***mana***. The ahu platforms of Easter Island were the sanctuaries of the people, and the moai statues were the ritually charged sacred objects of those sanctuaries.

E. Besides its more well-known name, Easter Island is also known as ***Te-Pito-O-Te-Henua***, meaning 'The Navel of the World', and as ***Mata-Ki-Te-Rani***, meaning 'Eyes Looking at Heaven'. These ancient name and a host of mythological details ignored by mainstream archaeologists, point to the possibility that the remote island may once have been a geodetic marker and the site of an astronomical observatory of a long forgotten civilization. In his book, Heaven's Mirror, Graham Hancock suggests that Easter Island may once have been a significant scientific outpost of this antediluvian civilization and that its location had extreme importance in a planet-spanning, mathematically precise grid of sacred sites. Two other alternative scholars, Christopher Knight and Robert Lomas, have extensively studied the location and possible function of these geodetic markers. In their fascinating book, Uriel's Machine, they suggest that one purpose of the geodetic markers was as part of global network of sophisticated astronomical observatories dedicated to predicting and preparing for future commentary impacts and crystal displacement cataclysms.

F. In the latter years of the 20th century and the first years of the 21st century various writers and scientists have advanced theories regarding the rapid decline of Easter Island's magnificent civilization around the time of the first European contact. Principal among these theories, and now shown to be inaccurate, is that postulated by Jared Diamond in his book ***Collapse: How Societies Choose to or Survive***. Basically these theories state that a few centuries after Easter Island's

initial colonization the resource needs of the growing population had begun to outpace the island's capacity to renew itself ecologically. By the 1400s the forests had been entirely cut, the rich ground cover had eroded away, the springs had dried up, and the vast flocks of birds coming to roost on the island had disappeared. With no logs to build canoes for offshore fishing, with depleted bird and wildlife food sources, and with declining crop yields because of the erosion of good soil, the nutritional intake of the people plummeted. First famine, then cannibalism, set in. Because the island could no longer feed the chiefs, bureaucrats and priests who kept the complex society running, the resulting chaos triggered a social and cultural collapse. By 1700 the population dropped to between one-quarter and one-tenth of its former number, and many of the statues were toppled during supposed "clan wars" of the 1600 and 1700s.

G. The faulty notions presented in these theories began with the racist assumptions of Thor Heyerdahl and have been perpetuated by writers, such as Jared Diamond, who do not have sufficient archaeological and historical understanding of the actual events which occurred on Easter Island. The real truth regarding the tremendous social devastation which occurred on Easter Island is that it was a direct consequence of the inhumane behavior of many of the first European visitors, particularly the slavers who raped and murdered the islanders, introduced small pox and other diseases, and brutally removed the natives to mainland South America.

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

The reading passage has seven paragraphs, A-G

Choose the correct heading for paragraphs A-G from the list below.

Write the correct number, i-xi, in boxes 27-31 on your answer sheet.

NB There are more headings than paragraphs, so you will not use them

List of Headings

- i The famous moai
- ii The status represented symbols of combined purposes
- iii The ancient spots which indicates scientific application

- iv The story of the name
- v Early immigrants, rise and prosperity
- vi The geology of Easter Island
- vii The begin of Thor Heyerdahl's discovery
- viii The countering explaination to the misconceptions politaically manipulated
- ix Symbols of authority and power
- x The Navel of the World
- xi The norweigian Invaders'legacy

Questions 27-3

Example Answer

Paragraph A iv

27 Paragraph B

28 Paragraph D

29 Paragraph E

30 Paragraph G

Questions 31-36

Do the following statements agree with the information given in Reading Passage 3? In boxes 31 -36on 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

31 The first inhabitants of Easter Island are Polynesian, from the Marquesas or Society islands.

- 32 Construction of some moai statues on the island was not finished.
- 33 The Moai can be found not only on Easter Island but also elsewhere in Polynesia.
- 34 Most archeologists recognised the religious and astronomical functions for an ancient society
- 35 The structures on Easter Island work as an astronomical outpost for extraterrestrial visitors.
- 36 the theory that depleted natural resources leading to the fall of Easter Island actual has a distorted perspective

Questions 37-40

Complete the following summary of the paragraphs of Reading Passage, using NO MORE THAN THREE WORDS from the Reading Passage for each answer. Write your answers in boxes 37-40 on your answer sheet.

Many theories speculated that Easter Island's fall around the era of the initial European contact. Some say the resources are depleted by a 37.....; The erroneous theories began with a root of the 38..... advanced by some scholars. Early writers did not have adequate 39..... understandings to comprehend the true result of 40.....nature of events on the island. The social devastation was in fact a direct of the first European settlers.

TEST 10

READING PASSAGE 1

The Mozart Effect

A. Music has been used for centuries to heal the body. In the *Ebers Papyrs* (one of the earliest medical documents, circa 1500 B.C.), it was recorded that physicians chanted to heal the sick (Castleman, 1994). In various cultures, we have observed singing as part of healing rituals. In the world of Western medicine, however, using music in medicine lost popularity until the introduction of the radio. Researchers then started to notice that listening to music could have significant physical effects. Therapists noticed music could help calm anxiety and researchers saw that listening to music could cause a drop in blood pressure. In addition to these two areas, music has been used with cancer chemotherapy to reduce nausea, during surgery to reduce stress hormone production, during childbirth, and in stroke recovery (Castleman, 1994 and Westley, 1998). It has been shown to decrease pain as well as enhance the effectiveness of the immune system. In Japan, compilations of music are used as medication, of sorts. For example, if you want to cure a headache or migraine, the album suggested Mendelssohn's "Spring Song," Dvorak's "Humoresque," or part of George Gershwin's "An American in Paris" (Campbell, 1998). Music is also being used to assist in learning, in a phenomenon called the Mozart Effect.



B. Frances H. Rauscher, Ph.D., first demonstrated the correlation between music and learning in an experiment in 1993. His experiments indicated that a 10 minute dose of Mozart could temporarily boost intelligence. Groups of students were given intelligence tests after listening to silence, relaxation tapes, or Mozart's Sonata for Two Pianos in D Major for a short time. He found that after silence, the average IQ score was 110, and after the relaxation tape, scores rose a point. After listening to Mozart, however, the scores jumped to 119 (Westley, 1998). Even students who did not like the music still had an increased score on the IQ test. Rauscher hypothesized that "listening to complex, non-repetitive music, like Mozart, may simulate neural pathways that are important in thinking" (Castleman, 1994).



C. The same experiment was repeated on rats by Rauscher and Hong Hua Li from Stanford. Rats also demonstrated enhancement in their intelligence performance. These new studies indicate that rats that were exposed to Mozart showed "increased gene expression of BDNF (a neural growth factor), CREB (a learning and memory compound), and Synapsin I(a synaptic growth protein)" in the brain's hippocampus, compared with rats in the control group, which heard only white noise (e.g. the whooshing sound of a radio tuned between stations)

D. How exactly does the Mozart affect work? Researchers are still trying to determine the actual mechanisms for the formation of these enhanced learning pathways. Neuroscientists suspect that music can actually help build and

strengthen connections between neurons in the cerebral cortex in a process similar to what occurs in brain development despite its type. When a baby is born, certain connections have already been made - like connections for heartbeat and breathing. As new information is learned and motor skills develop, new neural connections are formed. Neurons that are not

used will eventually die while those used repeatedly will form strong connections. Although a large number of these neural connections require experience, they also must occur within a certain time frame. For example, a child born with cataracts cannot develop connections within the visual cortex. If the cataracts are removed by surgery right away, the child's vision develops normally. However, after the age of 2, if the cataracts are removed, the child will remain blind because those pathways cannot establish themselves.



E. Music seems to work in the same way. In October of 1997, researchers at the University of Konstanz in Germany found that music actually rewires neural circuits (Begley, 1996). Although some of these circuits are formed for physical skills needed to play an instrument, just listening to music strengthens connection used in higher-order thinking. Listening to music can then be thought of as "exercise" for the brain, improving concentration and enhancing intuition.

F. If you're a little skeptical about the claims made by supporters of the Mozart Effect, you're not alone. Many people accredit the advanced learning of some children who take music lessons to other personality traits, such as motivation and persistence, which is required in all types of learning. There have also been claims of that influencing the results of some experiments.



G. Furthermore, many people are critical of the role the media had in turning an isolated study into a trend for parents and music educators. After Mozart Effect was published to the public, the sales of Mozart CDs stayed on the top of the hit list for three weeks. In an article by Michael Linton, he wrote that the research that began this phenomenon (the study by researchers at the University of California Irvine) showed only a temporary boost in IQ, which was not significant enough to even last throughout the course of the experiment. Using music to influence intelligence was used in Confucian civilization and Plato alluded to Pythagorean music when he described his ideal state in *The Republic*. In both of these examples, music did not have caused any overwhelming changes, and the theory eventually died out. Linton also asks, "If Mozart's Music were able to improve health, why was Mozart himself so frequently sick? If listening to Mozart's music increases intelligence and encourages spirituality, why aren't the world's smartest and most spiritual people Mozart specialists?" Linton raises an interesting point, if the Mozart Effect causes such significant changes, why isn't there more documented evidence?

H. The "trendiness" of the Mozart Effect may have died out somewhat, but there are still strong supporters (and opponents) of the claims made in 1993. Since that initial experiment, there has not been a surge of supporting evidence. However, many parents, after playing classical music while pregnant or when their children are young, will swear by the Mozart Effect. A classmate of mine once told me that listening to classical music while studying will help with memorization. If we approach this controversy from a scientific aspect, although there has been some evidence that music does increase brain activity, actual improvements in learning and memory have not been adequately demonstrated.

Questions 1-5

Reading Passage 1 has eight paragraphs A-H.

Which paragraph contains the following information? **Write the correct letter A-H in boxes 1-5 on your answer sheet.**

- 1 Music influences brain development of baby.
- 2 Popularity of public to the introduction of Mozart Effect
- 3 Description of the pioneer experiment of a person
- 4 Music is helpful as a healing method in some places
- 5 Learning needs other qualities though

Questions 6-8

Complete the summary below.

Choose NO MORE THAN THREE WORDS from the passage for each answer.

Write your answers in boxes 6-8 on your answer sheet.

In the experiment carried out by Frances Rauscher, participants were immersed in the music for a6.....period of time before they were tested. Rauscher suggested that enhancement of their performance is related to the.....7.....nature of Mozart's music. After that, another parallel experiment was also conducted on.....8.....

Questions 9-13

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

In boxes 9-13 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

- 9 Music has the power to improve people's brain performance according to the passage.

- 10 All neural connections are built up after a baby's born instead of the time he or she had born.
- 11 There is no one who questions Mozart Effect so far.
- 12 Michael Linton carried out further experiment on Mozart's life to support his viewpoint
- 13 Not sufficient evidence supports Mozart Effect from the very first experiment till now.

READING PASSAGE 2

London Swaying Footbridge

A. In September 1996 a competition was organized by the Financial Times in association with the London Borough of Southwark to design a new footbridge across the Thames. The competition attracted over 200 entries and was won by a team comprising Arup (engineers), Foster and Partners (architects) and the sculptor Sir Anthony Caro.

B. The bridge opened to the public on 10 June 2000. Up to 100,000 people crossed it that day with up to 2000 people on the bridge at any one time. At first, the bridge

was still. Then it began to sway just slightly. Then, almost from one moment to the next, when large groups of people were crossing, the wobble intensified. This movement became sufficiently large for people to stop walking to retain their balance and sometimes to hold onto the hand rails

for support. It was decided immediately to limit the number of people on the bridge, but even so the deck movement was sufficient to be uncomfortable and to raise concern for public safety so that on 12 June the bridge was closed until the problem could be solved.

C. The embarrassed engineers found the videotape that day which showed the center span swaying about 3 inches side to side every second. The engineers first



thought that winds might be exerting excessive force on the many large flags and banners bedecking the bridge for its gala premiere. What's more, they also discovered that the pedestrians also played a key role. Human activities, such as walking, running, jumping, swaying, etc. could cause horizontal force which in turn could cause excessive dynamic vibration in the lateral direction in the bridge. As the structure began moving, pedestrians adjusted their gait to the same lateral rhythm as the bridge. The adjusted footsteps magnified the motion - just like when four people all stand up in a small boat at the same time. As more pedestrians locked into the same rhythm, the increasing oscillations led to the dramatic swaying captured on film.



D. In order to design a method of reducing the movements, the force exerted by the pedestrians had to be quantified and related to the motion of the bridge. Although there are some descriptions of this phenomenon in existing literature, none of these actually quantifies the force. So there was no quantitative analytical way to design the bridge against this effect. An immediate research program was launched by the bridge's engineering designers

Ove Arup, supported by a number of universities and research organizations.

E. The tests at the University of Southampton involved a person walking 'on the spot' on a small shake table. The tests at Imperial College involved persons walking along a specially built, 7.2m-long platform which could be driven laterally at different frequencies (n and amplitudes. Each type of test had its limitations. The Imperial College tests were only able to capture 7-8 footsteps, and the 'walking on the spot' tests, although monitoring many footsteps, could not investigate normal forward walking. Neither test could investigate any influence of other people in a crowd on the behavior of the individual being tested.

F. The results of the laboratory tests provided information which enabled the initial design of a retro-fit to be progressed. However, the limitations of these tests was clear and it was felt that the only way to replicate properly the precise conditions of the Millennium Bridge was to carry out crowd tests on the bridge deck itself. These tests done by the Arup engineers could incorporate factors not possible in the laboratory tests. The first of these was carried out with 100 people in July 2000. The results of these tests were used to refine the load model for the pedestrians. A second series of crowd tests was carried out on the bridge

in December 2000. The purpose of these tests was to further validate the design assumptions and to load test a prototype damper installation. The test was carried out with 275 people.

G. Unless the usage of the bridge was to be greatly restricted, only two generic options to improve its performance were considered feasible. The first was to increase the stiffness of the bridge to move all its lateral natural frequencies out of the range that could be excited by the lateral footfall forces, and the second was to increase the damping of the bridge to reduce the resonant response.

You should spend about 20 minutes on question 14-26, which are based on reading passage 2 on the following pages.

Questions 14-17

*Choose **FOUR** letters, A-H.*

Write the correct letters in boxes 14-17 on your answer sheet.

Which FOUR of the following situation were witnessed on the opening ceremony of the bridge?

- A The frequency of oscillation increased after some time.
- B All the engineers went to see the ceremony that day.
- C The design of the bridge astonished the people.
- D Unexpected sideway movement of the bridge occurred.
- E Pedesfrians had difficulty in walking on the deck.
- F The bridge fell down when people tried to retain their balance.
- G Vibration could be detected on the deck by the pedestrians.
- H It was raining when the ceremony began.

Questions 18-22

Complete the following summary of the paragraphs of Reading Passage 2 using NO MORE THAN THREE WORDS from the Reading Passage for each answer.

Write your answers in boxes 18-22 on your answer sheet

After the opening ceremony, the embarrassed engineers tried to find out the reason of the bridge's wobbling. Judged from the videotape, they thought that 18.....and 19.....might create excessive force on the bridge. The distribution of 20.....resulted from human activities could cause 21.....throughout the structure. This swaying prompted people to start adjusting the way they walk, which in turn reinforced the 22.....

Questions 23-26

Complete the table below.

Choose NO MORE THAN THREE WORDS from Reading Passage 2 for each answer.

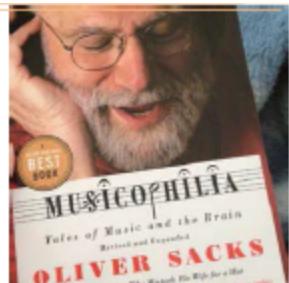
Write your answers in boxes 23-26 on your answer sheet.

Research programs launched by universities and organizations

Universities / People	Activity
Test at 23.....	Limited ability to have 7-8 footsteps
'walking on the spot' at Southampton	Not enough data on 24.....
Crowd test conducted by 25.....	Aim to verify 26.....

READING PASSAGE 3

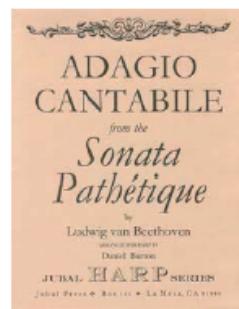
Book review on Musicophilia



Norman M. Weinberger reviews the latest work of Oliver Sacks

A. Music and the brain are both endlessly fascinating subjects, and as a neuroscientist specialising in auditory learning and memory, I find them especially intriguing. So I had high expectations of *Musicophilia*, the latest offering from neurologist and prolific author Oliver Sacks. And I confess to feeling a little guilty reporting that my reactions to the book are mixed.

B. Sacks himself is the best part of *Musicophilia*. He richly documents his own life in the book and reveals highly personal experiences. The photograph of him on the cover of the book—which shows him wearing headphones, eyes closed, clearly enchanted as he listens to Alfred Brendel perform Beethoven’s Pathétique Sonata—makes a positive impression that is borne out by the contents of the book. Sacks’s voice throughout is steady and erudite but never pontifical. He is neither self-conscious nor self-promoting.



C. The preface gives a good idea of what the book will deliver. In it Sacks explains that he wants to convey the insights gleaned from the “enormous and rapidly growing body of work on the neural underpinnings of musical perception and imagery, and the complex and often bizarre disorders to which these are prone.” He also stresses the importance of “the simple art of observation” and “the richness of the human context.” He wants to combine “observation and description with the latest in technology,” he says, and to imaginatively enter into the experience of his patients and subjects. The reader can see that Sacks,

who has been practicing neurology for 40 years, is torn between the ‘old-fashioned path of observation and the new fangled, high-tech approach: He knows that he needs to take heed of the latter, but his heart lies with the former.



D. The book consists mainly of detailed descriptions of cases, most of them involving patients whom Sacks has seen in his practice. Brief discussions of contemporary neuroscientific reports are sprinkled liberally throughout the text. Part, “Haunted by Music,” begins with the strange case of Tony Cicoria, a nonmusical, middle-aged surgeon who was consumed by a love of music after being hit by lightning. He suddenly began to crave listening to piano music, which he had never cared for in the past. He started to play the piano and then to compose music, which arose spontaneously in his mind in a “torrent” of notes. How could this happen? Was the cause psychological? (He had had a near-death experience when the lightning struck him.) Or was it the direct result of a change in the auditory regions of his cerebral cortex? Electroencephalography (EEG) showed his brain waves to be normal in the mid-1990s, just after his, trauma and subsequent “conversion” to music. There are now more sensitive tests, but Cicoria, has declined to undergo them; he does not want to delve into the causes of his musicality. What a shame!

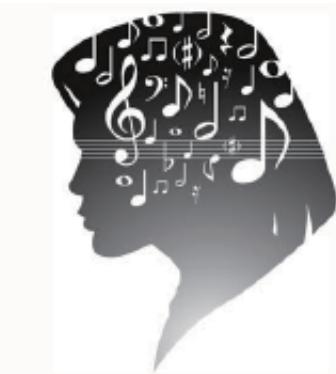
E. Part II, “A Range of Musicality,” covers a wider variety of topics, but unfortunately, some of the chapters offer little or nothing that is new. For example, chapter 13, which is five pages long, merely notes that the blind often have better hearing than the sighted. The most interesting chapters are those that present the strangest cases. Chapter 8 is about “amusia,” an inability to hear sounds as music, and “dysharmonia,” a highly specific impairment of the ability to hear harmony, with the ability to understand melody left intact. Such specific “dissociations” are found throughout the cases Sacks recounts.

F. To Sacks’s credit, part III, “Memory, Movement and Music,” brings **US** into the underappreciated realm of music therapy. Chapter 16 explains how “melodic intonation therapy” is being used to help expressive aphasic patients (those unable to express their thoughts verbally following a stroke or other cerebral incident) once again become capable of fluent speech. In chapter 20, Sacks demonstrates the near-miraculous power of music to animate Parkinson’s patients and other people with severe movement disorders, even those who are frozen into odd postures. Scientists cannot yet explain how music achieves this effect

G. To readers who are unfamiliar with neuroscience and music behavior, *Musicophilia* may be something of a revelation. But the book will not satisfy those seeking the causes and implications of the phenomena Sacks describes. For one thing, Sacks appears to be more at ease discussing patients than discussing experiments. And he tends to be rather uncritical in accepting scientific findings and theories.

H. It’s true that the causes of music-brain oddities remain poorly understood. However, Sacks could have done more to draw out some of the implications of the careful observations that he and other neurologists have made and of the treatments that have been successful. For example, he might have noted that the many specific dissociations among components of music comprehension, such as loss of the ability to perceive harmony but not melody, indicate that there is no music center in the brain. Because many people who read the book are likely to believe in the brain localisation of all mental functions, this was a missed educational opportunity.

I. Another conclusion one could draw is that there seem to be no “cures” for neurological problems involving music. A drug can alleviate a symptom in one patient and aggravate it in another, or



can have both positive and negative effects in the same patient. Treatments mentioned seem to be almost exclusively antiepileptic medications, which “damp down” the excitability of the brain in general; their effectiveness varies widely.

J. Finally, in many of the cases described here the patient with music-brain symptoms is reported to have “normal” EEG results. Although Sacks recognises the existence of new technologies, among them far more sensitive ways to analyze brain waves than the standard neurological EEG test, he does not call for their use. In fact, although he exhibits the greatest compassion for patients, he conveys no sense of urgency about the pursuit of new avenues in the diagnosis and treatment of music-brain disorders. This absence echoes the book’s preface, in which Sacks expresses fear that “the simple art of observation may be lost” if we rely too much on new technologies. He does call for both approaches, though, and we can only hope that the neurological community will respond.

Questions 27-30

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

Write the correct letter in boxes 27-30 on your answer sheet

27 Why does the writer have a mixed feeling about the book?

- A The guilty feeling made him so.
- B The writer expected it to be better than it was.
- C Sacks failed to include his personal stories in the book.
- D This is the only book written by Sacks.

28 What is the best part of the book?

- A the photo of Sacks listening to music
- B the tone of voice of the book
- C the autobiographical description in the book
- D the description of Sacks ’s wealth

29 In the preface, what did Sacks try to achieve?

- A make a herald introduction of the research work and technique applied
- B give detailed description of various musical disorders
- C explain how people understand music
- D explain why he needs to do away with simple observation

30 What is disappointing about Tony Cicoria's case?

- A He refuses to have further tests.
- B He can't determine the cause of his sudden musicality.
- C He nearly died because of the lightening.
- D His brain waves were too normal to show anything.

Questions 31-36

Do the following statements agree with the views of the writer in Reading Passage 3?

In boxes 31-36 on your answer sheet write

YES if the statement agrees with the views of the writer

NO if the statement contradicts with the views of the writer

NOT GIVEN if it is impossible to say what the writer thinks about this

31 It is difficult to give a well-reputable writer a less than totally favorable review.

32 Beethoven's Pathetique Sonata is a good treatment for musical disorders.

33 Sacks believes technological methods is of little importance compared with traditional observation when studying his patients.

- 34 It is difficult to understand why music therapy is undervalued
- 35 Sacks held little skepticism when borrowing other theories and findings in describing reasons and notion for phenomena he depicts in the book.
- 36 Sacks is in a rush to use new testing methods to do treatment for patients.

Questions 37-40

Complete each sentence with the correct ending, A-F, below.

Write correct letter, A-F, in boxes 37-40 on your answer sheet

- 37 The content covered dissociations in understanding between harmony and melody
- 38 The study of treating musical disorders
- 39 The EEG scans of Sacks's patients
- 40 Sacks believes testing based on new technologies
-

- A. show no music-brain disorders.
- B. indicates that medication can have varied results,
- C. is key for the neurological community to unravel the mysteries.
- D. should not be used in Isolation.
- E. indicate that not everyone can receive good education.
- F. show a misconception that there is function centre localized in the brain

SOLUTION FOR LISTENING

TEST 1

Each question correctly answered scores 1 mark. CORRECT SPELLING IS NEEDED IN ALL ANSWERS.

Section 1

- 1 warehouse
- 2 Hitcher
- 3 supermarket
- 4 bakery
- 5 ARW204
- 6 adverts / advertisements
- 7 newspaper
- 8 agency
- 9 tutors
- 10 feedback

Section 2

- 11 A
- 12 B
- 13 C
- 14 A
- 15 B
- 16 C
- 17 B
- 18 E
- 19 H
- 20 G

Section 3

- 21 A
- 22 B
- 23 A
- 24 C
- 25 B
- 26 C

27&28 IN EITHER ORDER

27 B

28 E

29&30 IN EITHER ORDER

29 A

30 D

Section 4

31 transportation

32 clean

33 information

34 residents

35 bonus

36 visitors

37 communication

38 sleep

39 plastic

40 planning

If you score...

0 - 12

you are highly unlikely to get you may get an acceptable an acceptable score under I score under examination examination conditions and we recommend that you spend a lot of time improving I more practice or lessons your English before you take IELTS

13 - 26

you may get an acceptable score under examination conditions but we recommended that you think about having more practice or lessons before you take IELTS

27 - 40

you are likely to get an acceptable score under examination conditions but remember that different institutions will find different scores acceptable.

TEST 2

Section 1

- 1 club
- 2 male
- 3 drive
- 4 Tuesday
- 5 August
- 6 dinner
- 7 25
- 8 16
- 9 modern
- 10 hospital

Section 2

- 11 C
- 12 A
- 13 B
- 14 A
- 15 D
- 16 G
- 17 F
- 18 C
- 19 B
- 20 A

Section 3

- 21 C
- 22 A
- 23 C
- 24 B
- 25 B
- 26 C
- 27 F

- 28 E
- 29 D
- 30 G

Section 4

- 31 microscope
- 32 iron
- 33 chocolates
- 34 flavour
- 35 fertilisers
- 36 bacteria
- 37 drugs
- 38 Silver
- 39 weight
- 40 sun

TEST 3

Section 1

- 1 Jamieson
- 2 11th July
- 3 waiter(s)
- 4 sing
- 5 children
- 6 drive
- 7 transport
- 8 meal
- 9 Thursday
- 10 photo

Section 2

11&12 IN EITHER ORDER

11 B

12 C

13&14 IN EITHER ORDER

13 A

14 D

15 D

16 A

17 B

18 C

19 H

20 G

Section 3

21 A

22 C

23 A

24 C

25 B

26 B

27 sharing

28 education

29 settle down

30 gifts

Section 4

31 carbon dioxide

32 legs

33 control

34 butterfly

35 feet

36 woodlands

37 heat

38 body shape

39 stomach

40 distance

TEST 4

Section 1

- 1 Children
- 2 4
- 3 radio
- 4 Evening
- 5 candles
- 6 Tuesday
- 7 donation
- 8 piano
- 9 discount
- 10 singer

Section 2

- 11 A
- 12 C
- 13 B
- 14 B
- 15 C
- 16 A

17&18 IN EITHER ORDER

- 17 C
- 18 E

19&20 IN EITHER ORDER

- 19 A
- 20 C

Section 3

- 21 B
- 22 A
- 23 A

- 24 C
- 25 B
- 26 B
- 27 A
- 28 C
- 29 E
- 30 F

Section 4

- 31 petrol stations
- 32 Scotland
- 33 head office
- 34 retrained
- 35 fresh food
- 36 manager
- 37 profits
- 38 stages
- 39 strategies
- 40 organisation

TEST 5

Section 1

- 1 077876345
- 2 27(th) February/Feb.
- 3 Akendale
- 4 3,450
- 5 books
- 6 paintings
- 7 mirror
- 8 desk
- 9 leg
- 10 plates

Section 2

- 11 restaurant
- 12 spa
- 13 tennis courts
- 14 swimming pool
- 15 play centre
- 16 conference centre
- 17 sports centre
- 18 B
- 19 A
- 20 C

Section 3

- 21 B
- 22 B
- 23 A
- 24 C
- 25 C
- 26 C
- 27 G
- 28 B
- 29 E
- 30 F

Section 4

- 31 river
- 32 3 pairs
- 33 estimate
- 34 farming
- 35 eggs
- 36 storms
- 37 guard
- 38 fence
- 39 wild
- 40 media

TEST 6

Section 1

- 1 advertising
- 2 regional manager
- 3 station
- 4 10,000
- 5 security
- 6 reception
- 7 kitchen
- 8 basement
- 9 gym
- 10 furniture

Section 2

- 11 A
- 12 A
- 13 B
- 14 C
- 15 E
- 16 B
- 17 C
- 18 D
- 19 F
- 20 A

Section 3

- 21 C
- 22 E
- 23 F
- 24 A

25&26 IN EITHER ORDER

25 B

26 C

27&28 IN EITHER ORDER

27 B

28 D

29&30 IN EITHER ORDER

29 D

30 E

Section 4

31 factories

32 immigration

33 industries

34 language

35 jobs

36 young

37 audiences

38 middle class

39 classical

40 recordings

TEST 7

Section 1

1 .A radio program

2.LS14 2JW

3.hennings.co.uk

4. two/2

5.joint membership

6. forty-nine/49

7.The Union Bank

8.15th October

9. JYZ37

10. Video

Section 2

- 11.lake
- 12.picnic
- 13.flowers
- 14. twenty/20
- 15.Motor
- 16.art gallery
- 17.concert hall
- 18.2:30
- 19.C
- 20. B

Section 3

- 21.classical history
- 22.compulsory
- 23.Object Matters
- 24.classification
- 25.coursework
- 26.Towns and Cities
- 27.The origins
- 28.oral
- 29.seminars
- 30.location

Section 4

- 31.A
- 32.B
- 33.B
- 34.B
- 35.C

36.A

37.B

38.A

39.B

40.C

TEST 8

Section 1

1. 9:30(a.m.)
2. Helendale
3. Central Street/S
4. (number/no./#)792
5. 8:55(a.m.)
6. 1.80
7. 7:30 10.afternoon
8. 7.15
9. commuter
10. afternoon

Section 2

11. C
12. C
13. A
14. B
15. first year
16. (right)balance
17. international/foreign(students)
18. relaxation
19. motivation
20. research/advanced

Section 3

- 21 .The Secret Garden
- 22.(the)twentieth century
- 23.walk
- 24.motivations
- 25.abstract ideas
- 26.roses
- 27.dark(ness)to light(ness)
- 28.health
- 29.environment
- 30.human companionship

Section 4

- 31.Negative
- 32.pleasure
- 33.poverty
- 34.Active
- 35.success
- 36.B
- 37.A
- 38.C
- 39.A
- 40.B

TEST 9

Section 1

- 1.26(th)
- 2.7:00

- 3. circle
- 4. A21–24
- 5 .Master/Mastercard
- 6. 3290 5876 4401 2899
- 7. Whitton
- 8. 42 South
- 9. SW2 5GE
- 10. headphones

Section 2

- 11. D
- 12. F
- 13. 1
- 14. B
- 15. E
- 16. A
- 17. G
- 18. armband
- 19. ambulance
- 20. yellow ticket

Section 3

- 21. B
- 22. D
- 23. F
- 24. A
- 25. B
- 26. C
- 27. A
- 28. march
- 29. secretary
- 30. computer office

Section 4

- 31. coast
- 32. garbage
- 33. summer
- 34. fish
- 35. checked
- 36. boat
- 37. camera
- 38. released
- 39. B
- 40. A

TEST 10

Section 1

- 1. 3834
- 2. holidays
- 3. Home Welcome
- 4. flexible
- 5. studio
- 6. 48
- 7. water
- 8. transportation
- 9. a deposit
- 10. UK references

Section 2

- 11. B

- 12. A
- 13. B
- 14. C
- 15. C
- 16. B
- 17. A
- 18. C
- 19. information dest
- 20. lockers

Section 3

- 21. C
- 22. B
- 23. C
- 24. A
- 25. C
- 26. B
- 27. C
- 28. D
- 29. A
- 30. B

Section 4

- 31. B
- 32. A
- 33. challenge
- 34. school
- 35. health
- 36. interests
- 37. tutors
- 38. maturity
- 39. advisors
- 40. online help

READING

TEST 1

Reading Passage 1

- 1 C
- 2 D
- 3 A
- 4 B
- 5 B
- 6 B
- 7 C
- 8 A
- 9 B
- 10 bonding
- 11 danger
- 12 rest
- 13 evolution

Reading Passage 2

- 14 FALSE
- 15 TRUE
- 16 NOT GIVEN
- 17 sludge
- 18 sand
- 19 gravel
- 20 H
- 21 A
- 22 F
- 23 B
- 24 D

25 B

26 D

Reading Passage 3

27 TRUE

28 TRUE

29 FALSE

30 NOT GIVEN

31 TRUE

32 NOT GIVEN

33 costly

34 latex/gutta percha

35 lead pipe

36 impedance

37 James Buchanan

38 camels

39 tropical rains

40 several hours

TEST 2

Reading Passage 1

1 FALSE

2 TRUE

3 NOT GIVEN

4 TRUE

5 NOT GIVEN

6 Tram

7 1954

8 Beach volleyball

9 Environment

10 wealthy people

11 Manly

12 Bondi

13 tiled roofs

Reading Passage 2

14 ix

15 iii

16 ii

17 vii

18 vi

19 B

20 A

21 D

22 B

23 C

24 A

25 C

26 B

Reading Passage 3

27 B

28 B

29 D

30 C

31 B

32 wood

33 hospitality

34 status wealth

35 expensive commodity

36 classical

37 furniture textiles

38 Edwin Lutyens

39 foreign architects

40 local authorities

TEST 3

Reading Passage 1

- 1 C
- 2 D
- 3 B
- 4 C
- 5 B
- 6 A
- 7 A
- 8 D
- 9 royal antelope
- 10 auroch
- 11 (long, splayed) hooves
- 12 (arid) deserts
- 13 pronghorn

Reading Passage 2

- 14 YES
- 15 NO
- 16 NO
- 17 NOT GIVEN
- 18 YES
- 19 NOT GIVEN
- 20 good (skills)
- 21 receptionists and telephonists
- 22 shipping
- 23 negotiation
- 24 D
- 25 B
- 26 C

Reading Passage 3

- 27 B
- 28 A
- 29 E
- 30 D
- 31 B
- 32 A
- 33 A
- 34 C
- 35 A
- 36 E
- 37 B
- 38 F
- 39 G
- 40 D

TEST 4

Reading Passage 1

- 1 C
- 2 D
- 3 A
- 4 B
- 5 J
- 6 K
- 7 C
- 8 F
- 9 D
- 10 G
- 11 TRUE
- 12 FALSE
- 13 NOT GIVEN

Reading Passage 2

- 14 iii
- 15 viii
- 16 v
- 17 x
- 18 ii
- 19 ix
- 20 B
- 21 C
- 22 A
- 23 NOT GIVEN
- 24 TRUE
- 25 TRUE
- 26 D

Reading Passage 3

- 27 NO
- 28 NOT GIVEN
- 29 YES
- 30 NOT GIVEN
- 31 YES
- 32 NO
- 33 A
- 34 C
- 35 D
- 36 D
- 37 A
- 38 H
- 39 E
- 40 B

TEST 5

Reading Passage 5

- 1 FALSE
- 2 TRUE
- 3 NOT GIVEN
- 4 NOT GIVEN
- 5 FALSE
- 6 TRUE
- 7 TRUE
- 8 FALSE
- 9 B
- 10 C
- 11 D
- 12 F
- 13 A

Reading Passage 2

- 14 H
- 15 J
- 16 I
- 17 K
- 18 G
- 19 NOT GIVEN
- 20 TRUE
- 21 TRUE
- 22 FALSE
- 23 in the 1960s
- 24 Tanzania
- 25 close observation
- 26 cultural origin

Reading Passage 3

- 27 NO
- 28 NOT GIVEN
- 29 NO
- 30 YES

31 NOT GIVEN

32 B

33 A

34 B

35 C

36 D

37 D

38 C

39 F

40 E

TEST 6

Reading Passage 1

1 tombs

2 book

3 monks

4 Dutch

5 smuggling

6 India

7 clippers

8 FALSE

9 NOT GIVEN

10 FALSE

11 TRUE

12 TRUE

13 NOT GIVEN

Reading Passage 2

14 B

15 C

16 A

17 C

- 18 B
19 C
20 B
21 D
22 TRUE
23 NOT GIVEN
24 TRUE
25 FAI.SE
26 FAI.SE

Reading Passage 3

- 27 C
28 C
29 A
30 C
31 B
32 YES
33 NOT GIVEN
34 YES
35 NO
36 B
37 E
38 G
39 D
40 C

TEST 7

READING PASSAGE 1					
1	vi	2	v	3	ix
4	iv	5	viii	6	iii
7	vii	8	Not Given	9	TRUE

IELTS ACTUAL TESTS – READING & LISTENING ACADEMIC MODULE

10	FALSE	11	FALSE	12	Not Given
13	TRUE				
READING PASSAGE 2					
14	iii	15	i	16	ii
17	vi	18	v	19	iv
20	B	21	D	22	C
23	B	24	D	25	B
26	C				
READING PASSAGE 3					
27	A	28	C	29	B
30	D	32	B	32	Yes
33	Not Given	34	Not Given	35	No
36	word choices	37	colloquial terminology	38	observer
39	invariant description	40	(theory of) general relativity		

TEST 8

READING PASSAGE 1					
1	D	2	B	3	G
4	A	5	F	6	E

IELTS ACTUAL TESTS – READING & LISTENING ACADEMIC MODULE

7	Mississippi	8	London	9	The Netherlands
10	Berlin	11	Los Angeles/ LA	12	B
13	D				
READING PASSAGE 2					
14	i	15	D	16	B
17	G	18	F	19	TRUE
20	FALSE	21	TRUE	22	Not Given
23	FALSE	24	Fighting	25	commerce
26	estates	27	flower lovers		
READING PASSAGE 3					
28	D	29	C	30	C
31	A	33	Yes	33	Not Given
34	No	35	Not Given	36	B
37	E	38	A	39	D
40	C				

TEST 9

READING PASSAGE 1					
1	No	2	Yes	3	No
4	No	5	Not Given	6	D

IELTS ACTUAL TESTS – READING & LISTENING ACADEMIC MODULE

7	C	8	D	9	A
10	D	11	B	12	B
13	A				

**READING
PASSAGE 2**

14	B	15	C	16	A
17	C	18	B	19	C
20	D	21	A	22	TRUE
23	Not Given	24	TRUE	25	FALSE
26	FALSE				

**READING
PASSAGE 3**

27	v	28	ii	29	iii
30	viii	32	Not Given	32	TRUE
33	FALSE	34	FALSE	35	Not Given
36	TRUE	37	growing population	38	racist assumption
39	archeological and historical	40	inhuman behavior		

TEST 10

READING PASSAGE 1					
1	D	2	G	3	B
4	A	5	F	6	short

IELTS ACTUAL TESTS – READING & LISTENING ACADEMIC MODULE

7	complex, non-repetitive	8	rats	9	TRUE
10	FALSE	11	FALSE	12	Not Given
13	TRUE				
READING PASSAGE 2					
14	A	15	D	16	E
17	G	18	winds	19	(the) pedestrians
20	horizontal forces	21	(excessive dynamic) vibration	22	motion
23	Imperial College	24	normal forward walking	25	(the) Arup engineers
26	(the) design assumptions				
READING PASSAGE 3					
27	B	28	C	29	A
30	A	32	Yes	32	Not Given
33	No	34	Not Given	35	Yes
36	No	37	F	38	B
39	A	40	D		