



**Reading
Sample**

Final Exam

Time: 50 min

Name.....

Student's Number.....

Teacher's Name.....

READING PASSAGE 1

You should spend about 20 minutes on Questions 1–12, which are based on Reading Passage 1 on the following pages.

Questions 1–5

Passage 1 has six paragraphs, A–F

Choose the correct heading for paragraphs A–D and F from the list of headings below.

Write the correct number, i–ix, next to Questions 1–5.

List of Headings

- i Improvements to faba bean farming
- ii Increasing productivity to secure the future of legume farming
- iii The importance of legumes
- iv The nutritional value of legumes
- v The effect of farming on the environment
- vi Legumes in the diet of ancient peoples
- vii The importance of reducing meat consumption
- viii Archaeological discoveries
- ix Legumes as a provider of protein

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

<i>Example</i> Paragraph E	<i>Answer</i> i
-------------------------------	--------------------

- 5 Paragraph F



Reading Sample



- A** The health benefit of legumes has been widely known for centuries. Also known as pulses or, more commonly, beans, they belong to an extremely large category of vegetables containing over 13,000 species. Only grains supply more calories and protein to the world's population. Today, agricultural researchers and scientists are experimenting with varieties of legumes that are easier to harvest, more resistant to disease and yield better crops.
- B** Beans are often referred to as 'the poor person's meat' but this label is unfair – considering the health benefits of legumes, they should really be called 'the

healthy alternative to meat'. Beans contain a rich and varied supply of nutritional substances, which are vital for keeping in good health. Diets rich in beans are used to help with a variety of health issues including lowering cholesterol levels, improving blood sugar control in diabetics, reducing the risk of many cancers, lowering the risk of heart disease and lowering blood pressure. Beans are a good source of protein but are often considered to be an 'incomplete' protein as they lack the essential amino acids that we need to complete our diet. Foods from animals (meat, fish, eggs, dairy products), on the other hand, contain protein and amino acids. However, many cultures combine beans with grains to form a complete protein that is a high-quality substitute for meat – rice and soy in Japan, corn and beans in Mexico, rice and lentils in the Middle East. Beans are also a good source of fibre, giving the consumer between 5 and 8.6 grams of fibre per 100 grams eaten. Fibre is an important ingredient in a healthy diet with great benefits to our digestive system and in reducing cholesterol levels, which in turn reduces our risk of heart disease. Fibre also helps us to feel full and control our appetite.

- C** Why is it important to substitute meat as much as possible? First of all because of the health implications – red meat in particular has a high fat content. Secondly, antibiotics and other chemicals are used in the raising of poultry and cattle. Thirdly, the cost to the environment is much greater in raising cattle than it is in growing crops. To produce a kilogram of beef, farmers need to feed the cow 15 kilograms of grain and a further 30 kilograms of forage.
- D** Little wonder then that legumes have been used from ancient times. According to Trevor Brice in *Life and Society in the Hittite World*, the Hittites, an ancient people living in Anatolia from the eighteenth century BC, ate a wide variety of legumes including peas, beans, faba beans, chickpeas and lentils. And in ancient Egypt, Ramses II is known to have offered 11,998 jars of beans to the god of the Nile. Archaeologists have found the remains of legumes on land beneath Lake Assad in Syria dating back to 8,000 BC and, astonishingly, a 4,000-year-old lentil seed found during an excavation in Turkey has been germinated, allowing scientists to compare the ancient variety with the organic and genetically engineered varieties of today. Professor Nejat Bilgen from Dumlupinar University, who led the archaeological team, said that the lentils were found in a container dating from the Bronze age. The plant grown from the ancient lentil was found to be 'pretty weak' in comparison with modern varieties.
- E** Modern agricultural research has tended to focus on grain production, breeding new varieties of wheat and other crops rather than improving the varieties of legumes, which can suffer from low yields and unstable harvests. For this reason, farmers started to abandon them in favour of more dependable crops, which had had the benefits of



**Reading
Sample**

scientific improvement. Recently, scientists have returned to legumes to identify desirable characteristics such as height, good crop production and resistance to pests in order to cross different plants with each other and produce a new, improved variety. Using traditional breeding methods agricultural scientists are transforming the faba bean into a variety that is easier to grow. Traditional varieties are undependable as they rely on insects to pollinate them. But faba bean types that can self-fertilise naturally were discovered and this gene is being bred into new varieties. Other faba bean varieties have been found that produce higher yields or shorter crops. Faba bean plants tend to grow tall and fall over in the field making them difficult to harvest mechanically so breeding plants that are 50% shorter means they are more stable. Unlike the traditional plants, the new faba bean plants end in a flower – this means that more of the plant's energy is transformed into producing beans instead of unusable foliage.

- F With the new varieties, farmers in some regions are achieving a marked rise in production – between 10 to 20% improvement. Scientists have also managed to develop a commercial faba bean able to resist the parasitic weed *Orobanche*, which has been known to destroy whole fields of the crop. The future of legumes and the farmers who grow them is becoming brighter. Legumes are an important source of nourishment for humans and also for the soil: the beans take nitrogen directly from the atmosphere and fix it into the soil to provide nutrients for other crops and save the farmer the cost of artificial fertiliser. Making legumes a profitable crop for the future may prove an essential factor in feeding growing populations.



Amirkabir University of Technology
(Tehran Polytechnic)

AUT International Campus Language Center

Reading Sample

Questions 6–11

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

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

- 6 Legumes are second to grain in providing people with calories and protein.
- 7 Beans can help to cure heart disease.
- 8 Antibiotics are used when farming animals for food.
- 9 Scientists have the opportunity to see how similar modern and ancient lentil plants are.
- 10 Agricultural scientists are making the faba bean easier to grow in dry areas.
- 11 New varieties of faba bean can destroy parasitic weeds.

Question 12

What is the best title for Reading Passage 1?

Choose the correct letter A, B or C.

- A The health benefits of beans and pulses
- B Diet in ancient times
- C Agricultural scientists give legumes a new lease of life



**Reading
Sample**

READING PASSAGE 2

You should spend about 20 minutes on Questions 13–29, which are based on Reading Passage 2 below.

Private space



- A** It's a remarkable achievement: the question is no longer 'How can we send humans into space?' but 'How can we keep them there?' Spaceflight is reaching a turning point where new technologies in engine development, better understanding of aerodynamics and materials for body construction are making spaceflight possible for private industry.
- B** The history of space exploration, until relatively recently, has been one of big government-backed projects like the Space Shuttle, Mars Landers and Long March rockets. But the most recent launches to the International Space Station (ISS) have been very special for at least three reasons. Firstly, along with 450 kg of scientific equipment, food and clothes, the rocket was carrying ice cream for the three space station astronauts. Secondly, the rocket was unmanned, being guided into docking position and back to earth again by remote control and automated systems. Finally, the rocket was commissioned from a private company by NASA.
- C** When the privately owned rocket delivered its goods to the ISS, it marked a milestone in the evolution of space flight and vindicated NASA's decision to delegate routine supply flights to the space station. The flight has been a long time in development. It started with President George W Bush announcing his Vision for Space Exploration, calling for the ISS to be completed. Under the next President, America's Space Shuttles were retired leaving NASA with no other choice but to look for alternative methods of supplying the ISS. The initiative was part of an effort to commercialise the space industry in order to decrease costs and spread the investment in the industry across a wider group than governments.
- D** The initiative had many attractions for NASA. By outsourcing to the private sector the routine business of taking food and equipment to and from low-earth orbit, NASA can theoretically free up money to do things that it really wants to prioritise: missions such as sending astronauts to Mars and landing on asteroids by the 2030s. Now that the Space Exploration



AUT International Campus Language Center

Reading Sample

Technologies Corporation (SpaceX) has proved that private enterprise can be players in space exploration, firms are pouring money into developing new spacecraft built to transport cargo, to mine asteroids and to carry passengers into space.

- E** In the last half of the twentieth century only government-backed agencies like NASA and Russia's ROSCOSMOS were capable of running space programmes due to the gigantic investment costs and uncertain payoffs. However, SpaceX and similar companies are proving that the former conditions are no longer relevant as new solutions are coming to light. Commercial companies like Boeing are able to raise large sums of money to run these projects. Furthermore, as the firms are running cargo and taxi services to lower orbits, the break-even point is lower, the technology is cheaper and they have the benefit of years of experience in commercial aviation and space flight. Opening space programmes to the commercial sector has the additional advantage of generating more solutions to old problems. An analogy is the invention of the Internet: when the technology went into the commercial sector, no one could have envisioned the development of social network sites. Likewise, no one can predict where commercial enterprise will take the space industry.
- F** The uncertainty surrounding where the space industry will end up is a problem as well as an asset and it is unsettling private investors who like to invest in relatively certain prospects. At the moment the industry is dominated by big-spending billionaires like the owner of SpaceX. In addition, the relatively small number of companies in the area could pose a problem in the future. The commercial space industry is still very new and there is no guarantee that progress will be smoother. For one thing, no one is sure that the business model is sound: government is still the major, if not only, customer available to the private space companies. The other problem is that space travel is high risk: the loss of space shuttles Challenger in 1986 and Columbia in 2003 illustrates that even the most carefully planned launches have unavoidable risks associated with them. The question is what would happen to the industry if another accident occurred. Finally, many space experts are doubtful that, even if private industry takes over the 'taxi' role for low-orbit missions, NASA will be able to achieve its ambitions, given its squeezed budgets and history of being used for political purposes. Furthermore, NASA may have created another space race, this time between government and private industry. If NASA doesn't go to Mars or the asteroid belt, its private competitors certainly have plans to do so.
- G** In spite of all of these risks, many argue that it is critical for the private sector and federal government to work together to push further into space.



**Reading
Sample**

Questions 13–18

Reading Passage 2 has seven paragraphs, A–G.

Which paragraphs, A–F, contain the following information?

Write the correct letter, A–F, next to Questions 13–18.

- 13 NASA being able to spend money on important projects
- 14 events leading to the commercialisation of spaceflight
- 15 new developments that have made spaceflight more accessible
- 16 an automated rocket that successfully completed a mission
- 17 the great dangers of space travel
- 18 new answers being found to previous questions



**Reading
Sample**

Questions 19–25

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

- 19 Which is NOT mentioned as making private space flight possible?
- A new methods of constructing the rockets
 - B modern substances from which to build the rockets
 - C understanding better how air moves round objects
 - D new methods of making space suits
- 20 Why are the recent launches special?
- A Their destination was the International Space Station.
 - B They carried clothes.
 - C They were not managed by a private company.
 - D The rocket is not owned by a government.
- 21 In order to make NASA look for other spaceflight providers, the US government
- A invested in private space companies.
 - B started to build the international space station.
 - C stopped using the Space Shuttle.
 - D allowed private companies to fly into space.
- 22 Private companies
- A need to reduce the cost of space projects.
 - B have social network sites.
 - C are able to fly rockets at high orbits.
 - D act as ferries to and from the space station.
- 23 At present, the private space industry is characterised by
- A uncertainty about how to make profits.
 - B companies controlled by individuals.
 - C companies too small to raise the amount of money needed.
 - D government interference.



**Reading
Sample**

Questions 24–29

Complete the summary below.

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

Write your answers in spaces 24–29.

There are a number of problems with commercial space projects. To start with, the 24 _____ might not be sound. There is also great 25 _____ attached to space flight – what would happen if there was another 26 _____ ? Experts doubt whether NASA can fulfil its 27 _____ as it has often been under 28 _____ pressure. Moreover, the development may lead to a 29 _____ between NASA and the private space industry.