

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

(        ) \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

**SECTION 1**

**LISTENING**

*You will hear five different people talking about their first day at work. For Questions 1-5, choose from the list A-F what each speaker says. Use letters only once. There is one extra letter which you do not need to use. You will hear the recording twice.*

<b>A</b> I was very bored.	Speaker 1	<input type="text"/>	<b>1</b>
<b>B</b> I found the atmosphere unfriendly.	Speaker 2	<input type="text"/>	<b>2</b>
<b>C</b> I didn't understand things.	Speaker 3	<input type="text"/>	<b>3</b>
<b>D</b> I received a useful introduction.	Speaker 4	<input type="text"/>	<b>4</b>
<b>E</b> I felt very disappointed.	Speaker 5	<input type="text"/>	<b>5</b>
<b>F</b> I found everyone was very helpful.			

**TRANSFER ALL YOUR ANSWERS TO YOUR ANSWER SHEET**

## SECTION 2

### READING

You are going to read an article about the rocket and its invention.

#### Task 1

#### Questions 1-5

Choose the most suitable headings for paragraphs 1-5 from the list of headings below. Write the appropriate letters A-G in boxes 1—5 on your answer sheet. There is one extra paragraph which you do not need to use.

#### List of Headings

- A** HOW THE REACTION PRINCIPLE WORKS
- B** THE IMPACT OF THE REACTION PRINCIPLE
- C** WRITERS' THEORIES OF THE REACTION PRINCIPLE
- D** WHAT'S NEXT?
- E** THE FIRST ROCKETS
- F** ROCKETS FOR MILITARY USE
- G** UNDEVELOPED FOR CENTURIES

#### THE ROCKET - FROM EAST TO WEST

##### Example:

**0**

The concept of the rocket, or rather the mechanism behind the idea of propelling an object into the air, has been around for well over two thousand years. However, it wasn't until the discovery of the reaction principle, which was the key to space travel and so represents one of the great milestones in the history of scientific thought, that rocket technology was able to develop. Not only did it solve a problem that had intrigued man for ages, but, more importantly, it literally opened the door to exploration of the universe.

**1**

An intellectual breakthrough, brilliant though it may be, does not automatically ensure that the transition is made from theory to practice. Despite the fact that rockets had been used sporadically for several hundred years, they remained a relatively minor artifact of civilization

until the twentieth century. Prodigious efforts, accelerated during two world wars, were required before the technology of primitive rocketry could be translated into the reality of sophisticated astronauts. It is strange that the rocket was generally ignored by writers of fiction to transport their heroes to mysterious realms beyond the Earth, even though it had been commonly used in fireworks displays in China since the thirteenth century. The reason is that nobody associated the reaction principle with the idea of travelling through space to a neighbouring world.

2

A simple analogy can help us to understand how a rocket operates. It is much like a machine gun mounted on the rear of a boat. In reaction to the backward discharge of bullets, the gun, and hence the boat, move forwards. A rocket motor's 'bullets' are minute, high-speed particles produced by burning propellants in a suitable chamber. The reaction to the ejection of these small particles causes the rocket to move forwards. There is evidence that the reaction principle was applied practically well before the rocket was invented. In his *Noctes Atticae* or *Greek Nights*, Aulus Gellius describes 'the pigeon of Archytas', an invention dating back to about 360 BC. Cylindrical in shape, made of wood, and hanging from string, it was moved to and fro by steam blowing out from small exhaust ports at either end. The reaction to the discharging steam provided the bird with motive power.

3

The invention of rockets is linked inextricably with the invention of 'black powder'. Most historians of technology credit the Chinese with its discovery. They base their belief on studies of Chinese writings or on the notebooks of early Europeans who settled in or made long visits to China to study its history and civilization. It is probable that, some time in the tenth century, black powder was first compounded from its basic ingredients of saltpetre, charcoal and sulphur. But this does not mean that it was immediately used to propel rockets. By the thirteenth century, powder-propelled fire arrows had become rather common. The Chinese relied on this type of technological development to produce incendiary projectiles of many sorts, explosive grenades and possibly cannons to repel their enemies. One such weapon was the 'basket of fire' or, as directly translated from Chinese, the 'arrows like flying leopards'. The 0.7 metre-long arrows, each with a long tube of gunpowder attached near the point of each arrow, could be fired from a long, octagonal-shaped basket at the same time and had a range of 400 paces. Another weapon was the 'arrow as a flying sabre', which could be fired from crossbows. The rocket, placed in a similar position to other rocket-propelled arrows, was designed to increase the range. A small iron weight was attached to the 1.5m bamboo shaft, just below the feathers, to increase the arrow's stability by moving the centre of gravity to a position below the rocket. At a similar time, the Arabs had developed the 'egg which moves and burns'. This 'egg' was apparently full of gunpowder and stabilised by a 1.5m tail. It was fired using two rockets attached to either side of this tail.

4

It was not until the eighteenth century that Europe became seriously interested in the possibilities of using the rocket itself as a weapon of war and not just to propel other weapons. Prior to this, rockets were used only in pyrotechnic displays. The incentive for the more aggressive use of rockets came not from within the European continent but from far-away India, whose leaders had built up a corps of rocketeers and used rockets successfully against the British in the late eighteenth century. The Indian rockets used against the British were described by a British Captain serving in India as 'an iron envelope about 200 millimetres long and 40 millimetres in diameter with sharp points at the top and a 3m-long bamboo guiding stick'. In the early nineteenth century the British began to experiment with incendiary barrage rockets. The British rocket differed from the Indian version in that it was completely encased in a stout, iron cylinder, terminating in a conical head, measuring one metre in diameter and having a stick almost five metres long and constructed in such a way that it

could be firmly attached to the body of the rocket. The Americans developed a rocket, complete with its own launcher, to use against the Mexicans in the mid-nineteenth century. A long cylindrical tube was propped up by two sticks and fastened to the top of the launcher, thereby allowing the rockets to be inserted and lit from the other end. However, the results were sometimes not that impressive as the behaviour of the rockets in flight was less than predictable.

**5**

Since then, there have been huge developments in rocket technology, often with devastating results in the form of war. Nevertheless, the modern day space programs owe their success to the humble beginnings of those in previous centuries who developed the foundations of the reaction principle. Who knows what it will be like in the future?

<b>Questions</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
<b>Paragraphs</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
<b>Headings</b>					

**Task 2**

**Questions 6 and 7**

Choose the appropriate letters **A-D** and write them in boxes **6** and **7** on your answer sheet.

**6** The greatest outcome of the discovery of the reaction principle was that

- A** rockets could be propelled into the air.
- B** space travel became a reality.
- C** a major problem had been solved.
- D** bigger rockets were able to be built.

**7** According to the text, the greatest progress in rocket technology was made

- A** from the tenth to the thirteenth centuries.
- B** from the seventeenth to the nineteenth centuries.
- C** from the early nineteenth to the late nineteenth century.
- D** from the late nineteenth century to the present day.

**6** \_\_\_\_\_

**7** \_\_\_\_\_

**TRANSFER ALL YOUR ANSWERS TO YOUR ANSWER SHEET**

## SECTION 3

### USE OF ENGLISH

#### Task 1

For Questions 1-15, read the text below and decide which answer, A, B, C or D best fits each space.

Example: (0) A announced B remembered C **reminded** D said

My secretary (0) ..... me that I had an important meeting that evening. She (1) ..... me not to set off too late, (2) ..... I might get held up in the rush hour traffic.

I asked my boss for (3) ..... to leave work early so that I could (4) ..... the traffic jams. He was not very (5) ..... on the idea at first, but eventually I was able to (6) ..... him to (7) ..... me go at 4.30 (8) ..... 5 o'clock. Even (9) ..... this was not as early as I had hoped, it was better than nothing.

I had (10) ..... started on my journey when I found that there had been a major accident on my route. All the traffic was (11) ..... down some side streets and I found myself in a part of town that I wasn't (12) ..... with. I asked a passer-by for (13) ..... and I finally (14) ..... to get back to the main road. As I was now late, I drove rather too fast and was (15) ..... by the police for speeding. I never got to my meeting.

1	A	advised	B	guarded	C	insisted	D	suggested
2	A	beside	B	besides	C	except	D	otherwise
3	A	allowance	B	permission	C	permit	D	possibility
4	A	avoid	B	deny	C	prevent	D	reject
5	A	fond	B	glad	C	happy	D	keen
6	A	advice	B	agree	C	make	D	persuade
7	A	allow	B	get	C	let	D	permit
8	A	apart from	B	except for	C	in spite of	D	instead of
9	A	although	B	however	C	though	D	whether
10	A	hard	B	hardly	C	justly	D	sooner
11	A	diversion	B	diverted	C	prevented	D	rejected
12	A	accustomed	B	apparent	C	familiar	D	sensible
13	A	direction	B	directions	C	path	D	way
14	A	managed	B	succeeded	C	was capable	D	was successful
15	A	accused	B	arrested	C	blamed	D	charged

**Task 2**

For Questions 16-25, read the text below. Use the word given in capitals to form a word that fits in the space.

Example: 0 anxious

**A LENGTHY WAIT**

We spent a few (0) (ANXIETY) days waiting until the (16) (CONFIRM) of our holiday finally came through. We were not exactly (17) (IMPRESS) by the efficiency of what we had been told was a (18) (REPUTATION) travel company.

My mother was most (19) (INSIST) that I should phone her as soon as we arrived in New York. Rather (20) (OPTIMISM) I had assured her that we would (21) (DEFINE) be there by six at the latest.

(22) (FORTUNE), when we all arrived at the airport, we found that our (23) (FLY) had been delayed. When he heard this, John, our youngest, showed his (24) (PLEASE) by lying on the floor and sulking. I soon lost (25) (PATIENT) with him after my attempts to bribe him with an ice-cream and sweets proved completely unsuccessful.

16	_____
17	_____
18	_____
19	_____
20	_____

21	_____
22	_____
23	_____
24	_____
25	_____

**Task 3**

For Questions 26-33, supply the required form for the verb in brackets.

Example: 0 have been

There (0) (BE) a number of burglaries in our neighbourhood lately. We are not sure who (26) (BE) to blame but it (27) (BELIEVE) widely that the burglaries are mostly the work of one gang.

The police have been very slow to act and they still (28) (KNOW) very little for certain. The public rightly or wrongly blame the police for not (29) (ACT) more quickly. Most people (30) (NOT THINK) highly of the local police and indeed so far they (31) (ARREST) only one suspect. They say they need more evidence before they can take the matter further. Whenever they (32) (CALL IN) to investigate a burglary, it (33) (TAKE) them so long to get to the scene of the crime.

26	_____
27	_____
28	_____
29	_____
30	_____
31	_____
32	_____
33	_____

**Task 4**

*For Questions 34-38, translate the following sentences from Russian into English.*

**34**

, .

---

---

**35**

, , .

---

---

**36**

?

---

---

**37**

.

---

---

**38**

.

---

---

**TRANSFER ALL YOUR ANSWERS TO YOUR ANSWER SHEET**

**SECTION 4**

**SOCIO-CULTURAL COMPETENCE**

*For Questions 1-5, answer the following questions about English-speaking countries:*

1. What cat did Alice speak to in Wonderland?
2. What British newspapers do you know?
3. What city is the capital of Northern Ireland?
4. What is Daniel Defoe famous for?
5. Name the highest mountain in Britain.

**1**

**2**

**3**

**4**

**5**

---

---

---

---

---

**TRANSFER ALL YOUR ANSWERS TO YOUR ANSWER SHEET**





## ANSWER SHEET

Participant's ID number

--	--	--	--	--	--

### SECTION 1

#### LISTENING

1	
2	
3	
4	
5	

### SECTION 2

#### READING

1	
2	
3	
4	
5	
6	
7	

### SECTION 3

#### USE OF ENGLISH

##### Task 1

1	A	B	C	D
2	A	B	C	D
3	A	B	C	D
4	A	B	C	D
5	A	B	C	D
6	A	B	C	D
7	A	B	C	D
8	A	B	C	D
9	A	B	C	D
10	A	B	C	D
11	A	B	C	D
12	A	B	C	D
13	A	B	C	D
14	A	B	C	D
15	A	B	C	D

**Task 2**

16	
17	
18	
19	
20	
21	
22	
23	
24	
25	

**Task 3**

26	
27	
28	
29	
30	
31	
32	
33	

**Task 4**

34	
35	
36	
37	
38	

**SECTION 4**

**SOCIO-CULTURAL COMPETENCE**

- 1 \_\_\_\_\_
- 2 \_\_\_\_\_
- 3 \_\_\_\_\_
- 4 \_\_\_\_\_
- 5 \_\_\_\_\_