

11 Grade

1 Tour

Maximum score – 100 points

Total time - 150 minutes (2.5 hours)

I. Listening

Maximum score -20 points

Time – 20 minutes

Task 1. You will hear a radio programme about Biomimicry, the science of copying nature in order to create new technologies. For questions 1-10, complete the spaces with a word or a short phrase. You can listen to the audio twice. Eg.: 0 – nature

0. Material sciences – all these faculties are beginning to be inspired by ...
1. Biomimicry imitates nature's structures, processes and ... to create new ideas.
 2. Velcro was developed after its inventor observed the sticking qualities of one particular plant's
 3. Wood has the beneficial feature of being able to
 4. The synthetic 'wood' created for the post office will not according to surrounding environmental conditions.
 5. The Namibian Fog Basking beetle uses its ability to in order to live in harsh conditions.
 6. A waxy ... on the beetle's shell repels water and aids the formation of large droplets.
 7. The Sahara Forest project utilised this concept in the design of a
 8. The 'Able Project' uses ... from the composting process as an input to the fish farm.
 9. The age of Biometry is still in its ...
 10. The extinction of one species of ... has prevented scientists from finding a cure for excess stomach acid.

10 points

1 point for each correct answer

Task 2. You will hear a radio interview with the comedian Brain Conley, who does a considerable amount of work in panto, a type of family-friendly show which is popular at Christmas. For questions 1-5, choose the answer, which fits best according to what you hear. You can listen to the audio twice. Eg.: 0 – a

0 Brian likes Birmingham because:

- a) It has provided him with a steady income
- b) It is where he grew up
- c) It was where he first became famous

1 When they discuss children's participation in panto, Brian says that

- a) he prefers children not to come up on stage
- b) it's important to get the parents' permission if a child wants to participate
- c) he thinks that children's participation adds a certain quality to the show

2 According to Brian, the advantage of panto is that

- a) all the actors can change their lines to reflect current events.
- b) the qualities required in panto match his talents.
- c) it gives him the chance to play a comedy character.

3 Brian became involved in comedy because

- a) he had wanted to do it since he was a child.
- b) his friends at school encouraged him to do it.
- c) he found he could earn more by doing comedy.

4 What does Brian say about providing comedy for corporate events?

- a) It is easy because the audience has had a lot to drink.
- b) He has learnt how to respond to comments from the audience.
- c) It's the only way for many comedians to find work.

5 What does Brian feel with regards to nerves?

- a) He agrees with a comment someone made early in his career
- b) He no longer feels nervous because he is more experienced
- c) The extent of his nerves has changed over the years

10 points

2 points for each correct answer

Total maximum score for this section - 20

II. Reading

Maximum score – 20 points

Time – 40 minutes

Task 1. Read a passage about the earth and the universe and answer questions 1-10 in Part 1 and Part 2.

The Shock of the Truth

A Throughout history, there have been instances, in which people have been unwilling to accept new theories, despite startling evidence. This was certainly the case when Copernicus published his theory - that the earth was not the centre of the universe.

B Until the early 16th century, western thinkers believed the theory put forward by Ptolemy, an Egyptian living in Alexandria in about 150 A.D. His theory, which was formulated by gathering and organizing the thoughts of the earlier thinkers, proposed that the universe was a closed space bounded by a spherical envelope beyond which there was nothing. The earth, according to Ptolemy, was a fixed and immobile mass, located at the centre of the universe. The sun and the stars revolved around it.

C The theory appealed to human nature. Someone making casual observations as they looked into the sky might come to a similar conclusion. It also fed the human ego. Humans could believe that they were at the centre of God's universe, and the sun and stars were created for their benefit.

D Ptolemy's theory was of course incorrect, but at the time nobody contested it. European astronomers were more inclined to save face. Instead of proposing new ideas, they attempted to patch up and refine Ptolemy's flawed model. Students were taught using a book called *The Sphere* which had been written two hundred years previously. In short, astronomy failed to advance.

E In 1530, however, Mikolaj Kopernik, more commonly known as Copernicus, made an assertion, which shook the world. He proposed that the earth turned on its axis once per day, and travelled around the sun once per year. Even when he made his discovery, he was reluctant to make it public, knowing how much his shocking revelations would disturb the church. However, George Reticus, a German mathematics professor who had become Copernicus's student, convinced Copernicus to publish his ideas, even though Copernicus, a perfectionist, was never satisfied that his observations were complete.

F Copernicus's ideas went against all the political and religious beliefs of the time. Humans, it was believed, were made in God's image, and were superior to all creatures. The natural world had been created for humans to exploit. Copernicus's theories contradicted the ideas of all the powerful churchmen of the time. Even the famous playwright William Shakespeare feared the new theory, pronouncing that it would destroy social order and bring chaos to the world. However, Copernicus never had to suffer at the hands of those who disagreed with his theories. He died just after the work was published in 1543.

G However, the scientists who followed in Copernicus's footsteps bore the brunt of the church's anger. Two other Italian scientists of the time, Galileo and Bruno, agreed wholeheartedly with the Copernican theory. Bruno even dared to say that space was endless and contained many other suns, each with its own planets. For this, Bruno was sentenced to death by burning in 1600. Galileo, famous for his construction of the telescope, was forced to deny his belief in the Copernican theories. He escaped capital punishment, but was imprisoned for the rest of his life.

H In time however, Copernicus's work became more accepted. Subsequent scientists and mathematicians such as Brahe, Kepler and Newton took Copernicus's work as a starting point and used it to glean further truths about the laws of celestial mechanics.

I The most important aspect of Copernicus' work is that it forever changed the place of man in the cosmos. With Copernicus' work, man could no longer take that premier position which the theologians had immodestly assigned him. This was the first, but certainly not the last time, in which man would have to accept his position as a mere part of the universe, not at the centre of it.

Part 1. The text has nine paragraphs, A-I. Which paragraph contains the following information? Eg.: 0 – F

0. the public's reaction to the new theory

1. an ancient belief about the position of the earth
2. Copernicus's legacy to the future of science
3. How academics built on Copernican ideas
4. An idea, which is attractive to humans
5. Out-dated teaching and defective research
6. Scientists suffer for their beliefs

Part 2. Look at the following statements and the list of people below. Match each statement with the correct person. There are extra names. 00 - Newton

<p>00. He, among others, used Copernicus's theories to advance scientific knowledge.</p> <p>7. He proposed an inaccurate theory based on the work of early philosophers.</p> <p>8. His attitude to the new theory was similar to that of the Church.</p> <p>9. He was killed because of his belief in the new theory.</p> <p>10. He was responsible for Copernicus's ideas being made public.</p>	<p>Ptolemy</p> <p>George Rheticus</p> <p>Newton</p> <p>Bruno</p> <p>Kepler</p> <p>William Shakespeare</p> <p>Copernicus</p>
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10 points

2 points for each correct answer

Total maximum score for this section - 20

III. Use of English

Maximum score – 20 points

Time – 30 minutes

Task 1. Use the words in capitals to form a word that fits in the space in the same line. Eg.: 0 – pollution

CANOLA OIL – The New Petrol?	
<p>Imagine a motor oil that can cut car 0... by 40 percent. Duane Johnson doesn't have to imagine such a product any more. He's made it a 1... Johnson, a new and alternative crops specialist, has developed a lubricant from canola oil, a seed crop grown in Colorado. This lubricant 2... reduces harmful emissions from car engines. Canola oil is 3... used as cooking oil especially in Asian foods. However, with certain 4..., it is as 5... as any normal motor oil. Canola oil is 6... for several reasons. Apart from reducing air pollution, it creates a useful by-product called meal, which can be fed to animals. Another 7 ... point that it can be grown as a crop every year, and it makes it a renewable energy source, 8... petrol. In the event of an oil split, canola is 9... friendly to soil or water. Perhaps the most 10... point of all is that, when burned in an engine, canola oil smells like popcorn!</p>	<p>0 POLLUTE</p> <p>1 REAL</p> <p>2 DRASTIC</p> <p>3 TRADITION</p> <p>4 AJUST</p> <p>5 EFFECT</p> <p>6 BENEFIT</p> <p>7 FAVOUR</p> <p>8 LIKE</p> <p>9 ENVIRONMENT</p> <p>10 INTEREST</p>

10 points

1 point for each correct answer

Task 2. Complete the sentences using the words in bold. Use two to five words. Eg.: 0 – can't have been

0 I'm sure it wasn't Jim who phoned.

have

It ... Jim who phoned

1 Although he tried hard, he failed the exam.

even

He didn't pass the exam ... hard.

2 They said they would like me to stay with them in Florida.

invited

They ... stay with them in Florida.

3 When he has to face a crisis, Tony panics.

faced

Tony panics ... a crisis.

4 Wouldn't you prefer to get a takeaway rather than have to cook tonight?

sooner

Wouldn't you ... have to cook tonight?

5 I had difficulty in completing the course.

complete

I found ... the course.

6 This matter is none of your business.

concern

This matter ... you.

7 The treasure is thought to date from the thirteenth century.

date

It ... from the thirteenth century.

8 Do you ever regret not going to university?

wish

Do you ever ... to university?

9 I couldn't be happier at the moment.

could

I am as ... at the moment.

10 Does parking here cost anything?

pay

Do I need ... here?

10 points

1 point for each correct answer

Total maximum score for this section - 20

IV. Writing

Maximum score – 40 points

Time - 60 minutes

Present a written argument or case to **ONE** of the following topics (**A-F**).

Use your own ideas, knowledge and experience and support your arguments with examples and with relevant evidence.

You should write at least **200-220** words.

A. Popular events like the football World Cup and other international sporting occasions are essential in easing international tensions and releasing patriotic emotions in a safe way. To what extent do you agree or disagree with this opinion?

B. There are lots of difficulties for the new students at the first day in the high school/college because they feel very lonely. What are the difficulties they will face on the first day? What can the school and college do to solve these problems?

C. Scientists use living animal to carry our research. Some people think it is useful and interesting, while some other people think it is cruel. What are your opinions on this?

D. Fashion is difficult to follow, some people say fashion is just for selling clothes, we should not follow it and we should dress what we like and feel comfortable in it. Agree or disagree?

E. Some say that it is good for children to stay away from their families and go to boarding school. Others say that children had better lives with their families and attend a day school. What do you think about it?

F. Is it fair that sports professionals earn a great deal more money than people in other important professions? Give both sides reasons of the argument and give your opinion.

Total maximum score for this section - 20