



## Instructions

This verbal reasoning test comprises 30 questions, and you will have 25 minutes in which to correctly answer as many as you can.

You will be presented with a passage to read, and a statement about that passage. You must select one of the following answers:

**True:** *The statement follows logically from the information or opinions contained in the passage.*

**False:** *The statement is logically false from the information or opinions contained in the passage.*

**Cannot Say:** *It is not possible to determine whether the statement is true or false without further information.*

You will have to work quickly and accurately to perform well in this test. If you don't know the answer to a question, leave it and come back to it if you have time.

Try to find a time and place where you will not be interrupted during the test. When you are ready, begin the test.

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Some studies of temperatures around the world have found that global warming is speeding up and claim that the 1980s and 1990s were the hottest decades for the past 400 years. The average global temperature has gone up by 0.8°C in the past 125 years, from 18°C. Some areas of the Arctic across Russia and Canada have had an increase double that of the global average increase, shooting their temperatures up to 13°C. The changes resulting from shorter, warmer winters are affecting all aspects of life for the indigenous Inuit people. The ice melts faster restricting access to hunting sites and making it harder to find the basic building material for the igloos widely used on hunting trips. This is causing difficulty for the Inuit, as hunting is their primary food source.

**Q1** The Inuit of the Arctic region are building fewer igloos on hunting trips.

True                      False                      **Cannot say**

*Mention is made only of ice as a building material being harder to find. No mention is made as to whether or not the number of igloos constructed on hunting trips has declined as a result.*

**Q2** Studies have found that the temperature has doubled in some areas of Canada.

True                      **False**                      Cannot say

*Average increases relative to global averages have doubled in some areas of Canada, not actual temperatures. An increase of double the global average would mean an increase of 1.6°C to a high of 13°C. That is not double.*

**Q3** The INUIT people obtain all their food from hunting.

True                      **False**                      Cannot say

*The article refers to hunting as a primary, not exclusive, source of food.*

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In an effort to preserve fishing stocks, for many years the European Union has used a quota system to regulate the amount of fish that can be taken out of the North Sea. This involves defining the tonnage of the various types of North Sea fish that each EU member country can take. As soon as the catch is landed - but not before - fishermen can be fined for landing more fish at their port than their quota permits. Each year fishermen dump thousands of tonnes of fish back into the sea either because they have reached their quota and don't want to be fined or because the fish are too small to be caught legally. Some environmental groups feel that existing approaches are not working since these fish are already dead and throwing them back serves no real purpose. They believe that other steps need to be taken to conserve North Sea fishing stocks and avoid depletion.

**Q4** Fish stocks in the North Sea are nearly exhausted.

True                      False                      **Cannot say**

*Only mention is that the EU are seeking to preserve existing stocks and environmentalists wish to avoid depletion. We are not told how close the fish stocks are to being exhausted.*

**Q5** Some environmental groups think new conservation methods are called for.

**True**                      False                      Cannot say

*The article states that environmental groups believe "existing approaches are not working" and "other steps need to be taken". So if measures other than existing are called for, this must mean new methods are called for.*

**Q6** Fishermen can be fined for catching too many fish.

True                      **False**                      Cannot say

*The article states that fishermen can be fined "as soon as the catch is landed -but not before-" so they cannot be fined just for catching them. The article also says that fishermen dump fish outside the port to avoid a fine.*

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Biofuels are now being used worldwide and supporters claim that they are a sustainable, renewable and cleaner alternative to traditional fossil fuels like coal and petroleum, supplies of which are becoming exhausted. Biofuels are increasingly used in the transportation sector. The main producers of biofuels are in Asia, Europe and America. They can be produced from any carbon source including landfill gasses and recycled vegetable oil but most of the biofuels produced around the world is derived from photosynthetic plants. The two main types of plant used in production are those high in sugar, which are fermented to produce ethanol, and those high in oil, which have the oil extracted and heated to reduce viscosity. Burning biofuels releases the same amount of CO<sub>2</sub> that the plants took out of the environment when growing so there is no net increase in levels of atmospheric carbon.

**Q7** Biofuels can be used to power aircraft.

True                      False                      **Cannot say**

*This may be true but the article refers only to biofuel's increasing use in transportation. Since the article does not explicitly say that all forms of transportation can use biofuels, or conversely that aircraft can use it, we are not able to tell if it can be used to power aircraft.*

**Q8** Plants high in oil can have their oil heated to make it flow more freely.

**True**                      False                      Cannot say

*The passage says that one type of plant used in the production of biofuels has its oil "extracted and heated to reduce viscosity". Reducing viscosity means making a liquid less thick and freer flowing.*

**Q9** Ethanol can be produced from photosynthetic plants with high oil content.

True                      False                      **Cannot say**

*The passage tells us that plants high in sugar content "are fermented to produce ethanol". One might be inclined from reading that plants high in oil content have their "oil extracted and heated to reduce viscosity" do not produce ethanol but produce something else. Conversely, one could argue that plants high in sugar content could also have high oil content. However, the text does not explicitly say whether ethanol can or cannot be produced from photosynthetic plants with high oil content.*

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Many businesses now recognise that there are wide-ranging benefits to be gained from offering their workforce flexible working arrangements. These arrangements can include being able to work from home, job sharing, part time working and being able to choose when to complete agreed hours, for example through working fewer but longer days, or working flexitime. Employees able to adopt flexible working are better able to balance work and family commitments and are therefore happier at work, experiencing greater job satisfaction. They are also more motivated and less likely to leave. For businesses, they reap the benefits through productivity increases, and greater cost-effectiveness. Staff recruitment costs are not insignificant to businesses. Customers can benefit too as businesses are better able to react quickly to changes in the market. All employees now have a statutory right to request flexible working arrangements. The law extends as far as insisting employers consider and respond to these requests within a predefined timescale.

- Q10** Parents able to adopt flexible working experience better job satisfaction because they can better balance time between work and family commitments.

**True**                      False                      Cannot say

*Parents are not specifically mentioned in the text but the passage does say that “Employees able to adopt flexible working are better able to balance work and family commitments...experiencing greater job satisfaction”. Since the term “employees” includes employed parents, it can be taken that parents are included in this statement.*

- Q11** Employees have a legal right to flexible working arrangements if they want them.

True                      **False**                      Cannot say

*The text states that “All employees now have a statutory right to request flexible working arrangements. The law extends as far as insisting employers consider and respond to these requests...”. So the passage is telling us that the law requires the employer to consider the employee’s request but that is as far as the law goes; i.e. it does not go as far as saying they have to honour the request.*

- Q12** Employers can reduce recruitment costs through introducing flexible working hours.

**True**                      False                      Cannot say

*The passage tells us that by adopting flexible working hours, staff are “more motivated and less likely to leave”. We are also told that “Staff recruitment costs are not insignificant to businesses.” So, we are effectively told that by increasing staff retention, businesses can save money on recruitment.*

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While most forms of discrimination in the workplace have been outlawed, discrimination or bias against some employees seeking career advancement still happens. This discrimination is both unwritten and unacknowledged. A 'Glass Ceiling' is the term used to describe this type of discrimination and refers to the invisible barrier that people hit when they try to progress beyond a certain level in some businesses and organisations. Originally coined to illustrate the hidden use of sexual discrimination against women in professional environments, it is now commonly used to describe any form of discrimination, such as racism or ageism, which prevents qualified and experienced employees reaching even basic levels within their organisation. Many reports and studies now suggest that change is happening and that cracks are beginning to appear in the glass. The studies also claim however that change is happening slowly and that the cracks are small.

**Q13** A 'Glass Ceiling' specifically describes sexual discrimination in the modern workplace.

True                      **False**                      Cannot say

*The article explicitly states this was its original meaning but in recent times it has changed to encompass any form of discrimination that halts career progression.*

**Q14** Positive changes are occurring regarding discrimination in the workplace.

True                      False                      **Cannot say**

*This is a sneaky one. The passage states that "Many reports and studies now suggest that change is happening and that cracks [in the glass ceiling] are beginning to appear". The next sentence tells us "studies also claim however that change is happening...". So the passage is telling us that reports have suggested change is happening, but the passage does not go as far as telling us if these reports are true or false, so we cannot say.*

**Q15** The 'Glass Ceiling' can prevent qualified people from getting to the top of their field.

**True**                      False                      Cannot say

*We are told that "in some businesses and organisations" the glass ceiling blocks people who are "qualified and experienced" for the role but are discriminated against. We are told that this barrier prevents people reaching "even basic levels within their organisation" Since the statement refers to the "top of their field", i.e. the highest positions, we can deduce that the glass ceiling would come into play before getting to the top of their field.*

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The Flying Shuttle and the Spinning Jenny are two early 18th century British inventions that revolutionised the textile industry. They increased productivity by automating some key processes thereby reducing the amount of manual operation needed. The Flying Shuttle, for example, raised the productivity of manual weaving by around 50 percent by returning the shuttle automatically meaning that one worker could do the work that previously had been done by two. The Spinning Jenny invented a couple of decades later similarly automated processes allowing one spinner to do more. Reducing the amount of manual intervention needed for these tasks meant that they were more suitable for adaptation to mechanical power such as waterpower and steam which had become the new means of propulsion shortly before their invention.

**Q16** Automating the production process of weaving was a necessary precursor to the application of steam power.

True

**False**

Cannot say

*The article states that automating the processes meant that they were better suited to steam power, "which had become the new means of propulsion shortly before their invention" i.e. steam propulsion was developed before automated weaving.*

**Q17** The two inventions led to job losses in the textile industry.

True

False

**Cannot say**

*The text makes no mention of this. Whilst we are told that manual labour was reduced for the same output, it may or may not be the case that this led to job losses.*

**Q18** Steam as a propulsion system was introduced into the textile industry after waterpower.

True

False

**Cannot say**

*This is a fairly straightforward one. The text does not state whether steam or water was the first to be introduced into the textile industry. If something is not mentioned in the passage, we cannot say whether the statement is true or false.*

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Proponents of recycling are adamant that we must preserve the world's precious natural resources by reducing our consumption of new raw materials. They say that to accomplish this all we need to do is to reuse or recycle many materials that traditionally would be thrown away and end up in landfill sites. Many local authorities have designed and implemented full end-to-end recycling programmes. A critical factor in the success of any waste management and recycling programme is the ability to clearly communicate waste disposal and depositing policy to the public. The majority of people are willing to participate, but they are more likely to participate if they can easily understand what goes where. They are also less likely to make errors and put something in the wrong place, which can cause costly problems. Supporters claim that the more we recycle the less it costs, however some critics counter-claim that recycling actually consumes more resources than it saves and in the long run is doing more harm than good.

**Q19** Recycling advocates are arguing that we must recycle all our waste to preserve the world's natural resources.

True

**False**

Cannot say

*The text makes no such claims but states that people in such groups are arguing for the recycling of "many materials that traditionally would be thrown away" i.e. not all waste.*

**Q20** Some people say that recycling is an inefficient use of resources.

**True**

False

Cannot say

*The text says that some critics claim recycling actually consumes more resource than it saves.*

**Q21** Most of the public are reluctant to participate in recycling because they do not know what goes where.

True

**False**

Cannot say

*The text says that "the majority of people are willing to participate, but are more likely to participate if they can easily understand what goes where". So we are told that the majority of the public are willing to participate in recycling. The second part of the statement about not knowing what goes where is irrelevant since we have already established that the majority of people are willing to recycle and therefore that the statement is false.*



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Scientists now claim that some of the low, wide debris-covered formations first observed on radar images of Mars as far back as the 1970s are in fact glaciers around 1km thick. The large formations were first seen on both hemispheres of the planet on images sent back by NASA's Viking orbiters. There are many similar apron-shaped formations on the Martian landscape but the latest reconnaissance images from Mars have lead some scientists to believe that the bigger rounded slopes and ridges have features which suggest they were formed by a flow of thick ice covered rubble. There are other known deposits of ice at the polar caps where temperatures are much lower. These newest discoveries are at much lower latitudes and some scientists believe that there could be enough water held in these formations to support humans in future Mars missions.

**Q22** Some scientists claim there is now reason to believe that ice exists on Mars in locations other than just the polar caps.

**True**                      False                      Cannot say

*The references to the fact that scientists now claim that some of the 'formations' are in fact glaciers...and the fact that these 'formations' were first seen in both hemispheres of the planet confirms this. The passage goes on to say that there are 'other known deposits' of ice at the polar caps, implying the first referenced glaciers are in addition to those at the polar caps.*

**Q23** NASA believes that there is perhaps enough water on Mars to support humans on future missions.

True                      False                      **Cannot say**

*The text does not outline NASA's official position – only what some scientists (who may or may not work for NASA) think.*

**Q24** Radar technology existed prior to the 1980s.

**True**                      False                      Cannot say.

*We are told that radar images were used as far back as the 1970s, so radar technology must have existed in the 1980s.*

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University professor Dr Nugent has produced a study in which he puts forward a theoretical calculation of how light could be bent to make objects invisible. He theorises that if light bends round an object rather than hitting it, the object will appear invisible. He points out that the science he is using is well established. Light is bent when it travels through water as is demonstrated by the fact that the fish you see in the water are not in fact where you think they are. Our brains 'think' that the light travels in a straight line. An invisibility cloak would be a much more sophisticated application of the same science. The professor stresses that a design is still a long way off and that a lot of effort and money will have to be spent before his concept could be developed into a workable device.

**Q25** A professor, using well-established science, has designed an invisibility cloak.

True                      False                      **Cannot say**

*The text states that Dr. Nugent's work is a theoretical calculation and that the "design is still a long way off". So whilst the passage tells us Dr. Nugent has not designed an invisibility cloak, we are not told that no professors anywhere have or have not.*

**Q26** By bending light, it is possible to fool a human brain into thinking an object is not where it is.

**True**                      False                      Cannot say

*The text says that our brains 'think' that light travels in straight lines and that a visibility cloak would be a much more sophisticated application of the same science. By bending light, we are fooling the brain that thinks light travels in only a straight line. The example of fish in water is given as an example of this.*

**Q27** The military have expressed an interest in the technology used to bend light.

True                      False                      **Cannot say**

*The passage makes no reference to the military or their interest in the technology, so we cannot say if this statement is true or not.*

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In the USA there are on average 2 million hectares of land cleared by 120,000 wildfires per annum. These uncontrolled blazes can travel at up to 23 kilometres per hour and destroy everything in their path. Prolonged drought and dry conditions produce tinder dry vegetation that can be ignited by a single spark which can rapidly become a raging inferno when fed by hot dry winds. Man starts eighty per cent of all wildfires either intentionally or accidentally. Embers from campfires and discarded cigarettes are common causes. Nature plays its part too with fires starting via lightning and even the direct heat of the sun. Naturally-occurring wildfires can play an important role in the ecosystem of some forest environments. The fires destroy dead or rotting vegetable matter, returning beneficial nutrients to the ground and killing disease. There are even some seeds that can only germinate if they have been 'heat-treated' by such fires.

**Q28** Wildfires can be beneficial to the natural environment.

**True**                      False                      Cannot say

*The penultimate sentence highlights how wildfires destroy rotting vegetable matter and in doing so, return "beneficial nutrients to the ground". This is beneficial to the natural environment.*

**Q29** One quarter of wildfires are started naturally.

True                      **False**                      Cannot say

*The text states that man is responsible for 80% of wildfires, meaning that 20% (one fifth) have a different cause.*

**Q30** In the USA a typical month has 10,000 wildfires.

True                      False                      **Cannot say**

*The article mentions an average annual rate of 120,000 wildfires, but it does not state these are evenly distributed through the year so therefore one cannot divide this figure by 12 to get an average monthly figure (e.g. perhaps 50% happen in July or August).*