


The screenshot shows a web browser window with the AssessmentDay logo in the top left. The main content area displays a question titled "Question 2" with a paragraph of text. To the right of the text are three radio button options: "True", "False", and "Cannot say". Below the question area are navigation arrows. The background of the slide is a light blue gradient.

Verbal Reasoning
Practice Test 2

Solution Booklet

In a study of 3,000 employed men in the 19-70 age range over a period of 10 years, researchers found that those working for inconsiderate bosses were more likely to suffer from stress and stress-related illness than those working for more considerate and enlightened bosses. Previous research had shown that employees with inconsiderate bosses suffered from high blood pressure which is known to increase the risk of heart disease. In the latest survey the researchers asked employees to assess the competence of their bosses as leaders. They found that those who had categorised their boss as incompetent were 25% more at risk of serious heart disease and that this level of risk increased the longer they continued to work for the same boss. The statistics took into account external factors such as social class, educational background, lifestyle and any existing illness. The researchers recommended that should their findings be confirmed, managers should be given training to help them improve their working relationships.

Q1 Twenty five percent of the 3,000 men in the study group suffer stress due to inconsiderate bosses.

True False **Cannot say**

The passage discusses a base of 3,000 men, but it does not state what percentage of the men suffered stress due to inconsiderate bosses.

Q2 Managers should be given training to help them improve their working relationships.

True False **Cannot say**

The passage states that recommendations are subject to confirmation. The passage does not tell us for certain if this statement is either true or false.

Q3 There is a link between high risk rates of cardiac illness among employees that have incompetent bosses.

True False **Cannot say**

There are two studies referred to in the passage. The first study mentions inconsiderate bosses and high blood pressure as actual findings. The second study discusses incompetence and the risk of cardiac illness. However, it only discusses the employees' perception of their bosses as being incompetent – it makes no objective claim to have shown that the bosses were in fact incompetent.

The European Space Agency (ESA) is the body which decides the scope and direction of European space initiatives. It is funded by its participating states, currently 18 in number. Each contributes according to its own economic power. The body controls the funding of existing activities such as the Planar rocket and space station projects but is also responsible for the initiation of new projects like a new generation of weather satellites. Some of the programmes are compulsory but others are not and member states are free to choose in which of the latter they will become involved. There is a direct correlation between the amount of money that a state agrees to invest in a programme and the amount of benefit it can expect in return through contracts awarded to its domestic space industry. ESA directors are keen to maintain a high level of funding from its member states even in times of global economic downturn. They believe that a longer term view is needed.

- Q4** Space industries in the larger ESA contributor member states get more work from the ESA than the smaller contributors.

True False Cannot say

The relationship between the amount of money a state invests and the benefit it receives through contracts awarded to its domestic space industry is explicitly stated in the passage.

- Q5** Even in tough economic times, ESA directors wish to maintain a high level of work flowing through to the space industries of member states.

True False Cannot say

This is not explicitly stated. However, the passage states that ESA directors wish to keep their funding high even in times of global economic downturn. Elsewhere, ESA funding is stated as being directly related to the volume of work that passes back to member states' space industries. Under the funding structure described in the passage, work flowing through to member states can only happen if the ESA's budget is maintained. The statement is therefore true by way of reasoning.

- Q6** Member states can choose to spend their money on the Planar rocket or new weather satellites.

True False **Cannot say**

The passage confirms that some projects are mandatory and others are not – it does not specify which individual projects are mandatory or otherwise.

Britain is still firmly committed to the EXOMars Robot project even though the scope and the cost have grown in the three years since it was first initiated. The shape of the project has changed dramatically, mainly due to the increased expectations of scientists. According to the ESA, this change in direction justifies the almost doubling of the original budget. The increased cost will, however, have to be met by the participating countries that originally signed up to fund this programme. Both Italy, the project leader, which provided much of the initial programme funding, and Britain, will have to significantly increase their share of funding for this project. Britain considers that this project makes the most of its expertise in robotics. To date Britain has not been involved in other high-profile ESA programmes such as the Columbus science laboratory and the Ariane Rocket project. The ESA now hopes to send the robot to Mars in 2016.

- Q7** Italy and Britain are covering the cost of the ESA's EXOMars Robot project and the costs have risen significantly over the past three years.

True **False** Cannot say

There are two propositions here – the first proposition, that Italy and Britain are covering the cost of the mission, is false. The passage states that they will need to increase their share of the funding, which by definition means they are not bearing the entire cost of the project. The second proposition, that the mission's costs have risen significantly over three years, is correct. The two propositions are linked in the statement by 'and', therefore the entire proposition is false.

- Q8** Britain has accepted that the change in mission direction justifies the near doubling of the budget.

True False **Cannot say**

The passage states that the ESA has said that the change in direction justifies the increase in the budget – the position of Britain is stated only to be one of ongoing commitment to the project. The passage does not confirm whether or not Britain accepts that the doubling of project costs is justified by the change in direction to which the passage refers. Britain's ongoing commitment against the backdrop of a rising budget could be due to many factors other than their acceptance of the ESA's justification.

- Q9** Historically, Britain has tried to avoid ESA high-profile missions.

True False **Cannot say**

No explanation is given for Britain's non-participation in other ESA high-profile missions. Therefore the truth of the words 'try to avoid' cannot be confirmed either way.

Some commentators argue that in times of global economic uncertainty governments should be boosting flagging economies by investing in major infrastructure projects. Many people are of the opinion that governments should grasp the opportunities presented to tackle global climate change at the same time as stimulating the economy, by using this public sector investment to move towards a new low-carbon infrastructure which would be an effective way of reducing carbon emissions and of ensuring security of energy supplies. They claim investment is needed in projects like renewable energy generation, modernising buildings to be more energy efficient, improving transport networks and even building pipelines to carry captured CO₂ to undersea storage facilities. They acknowledge, however, that the political will has to be found and that this has to be done on a global level if positive results are to be realised.

- Q10** Some commentators believe the best way to boost a flagging economy would be for governments to invest in major 'green'-related infrastructure projects.

True False **Cannot say**

The passage makes no such claim. It states that some commentators believe infrastructure spending would help boost the economy but not that this is the best way to do so. The passage also makes no claim that 'green' infrastructure projects would be more effective at boosting the economy than other projects, such as road building.

- Q11** Some people believe that a flagging economy should be good for 'green' projects.

True False Cannot say

Although not explicitly stated, the passage does say that some people believe that infrastructure investment would stimulate a flagging economy. It also states that some people believe that any such spending should be used to drive forward green projects. It is logical to conclude therefore that some people feel that spending should be available for deployment on green projects that would not have been available unless the economy was flagging.

- Q12** Renewable energy generation projects will have a positive impact regardless of their scale.

True **False** Cannot say

The passage provides that people "acknowledge" (i.e. recognise as being true) that "this has to be done on a global level if positive results are to be realised".

Existing targets for reducing carbon emissions worldwide acknowledge that the current high levels of greenhouse gases in our atmosphere are an accumulation over many decades that can be directly attributed to today's developed economies. This situation has led to developing economies like India, China and Mexico having less aggressive targets for emissions reduction than the developed countries. There is concern though that unless these large emerging economies are fully committed to reducing carbon emissions, their desire for rapid economic growth coupled with less stringent emission targets will encourage them to continue to use traditional production methods rather than introduce cleaner and more sustainable technologies. If the reduction of carbon emissions worldwide has any hope of success, the emerging economies must be able to contribute on an equal basis to the decision making processes which will determine how this is to be achieved.

Q13 Developing economies have less stringent emissions reduction targets than developed economies do.

True False Cannot say

The passage states that “developing economies like India, China and Mexico [have] less aggressive targets for emissions reduction than the developed economies”.

Q14 The developing countries will resist any move to stricter emissions targets.

True False **Cannot say**

The passage states that existing emissions targets for developing countries are less demanding than those of developed countries. It attributes this position to the fact that historically developing countries were not major contributors of greenhouse gas emissions, but it does not explain the thinking of developing countries, or their justification for having less demanding existing targets than the developed world . There is also an indirect assertion that developing countries’ acceptance of more aggressive targets in future could be linked to the extent to which they feel equal contributors to the debate. Any discussion of their reaction to potentially more aggressive targets in future is therefore speculation.

Q15 Currently, developing economies produce less carbon dioxide per year than developed countries do.

True False **Cannot say**

Although this statement might sound likely from the passage, nowhere does the passage state how the current emissions from developed and developing countries compare. We are told that developed countries historically were responsible for high emissions, but we are not given information about the present.

A new government body is about to publish a number of scenarios hypothesising how our climate might change by the year 2100. The information provided will be used to help decide how to start adapting our society to changes resulting from global warming which will be particularly important when considering large infrastructure projects with a long lifespan. Whilst all agree that there is some degree of global warming, some scientists argue that we are overemphasising this long-term approach and should instead be focussing on shorter range natural variability which is not well understood and often difficult to predict. They claim that there is no way of knowing how accurate these long range hypotheses will be, and also question how useful the hypotheses will be for predicting the climate for the next 10 years. All existing long-term predictions suggest that within fifty years our summer will be drier and heat waves will be the norm, but what, if anything, does that tell us about the next two or three years? How do we reconcile long and short-term predictions?

Q16 Over the next 50 years the summer each year will be hotter and drier.

True False **Cannot say**

The passage says climate change projections “suggest that within fifty years our summer will be drier and heat waves will be the norm”. This is not the same thing as saying that it will be hotter and drier every year until then. We are not told either anything to disprove this statement. Therefore, given the information in the passage alone, we cannot say.

Q17 Some scientists do not agree that global warming is happening.

True **False** Cannot say

The passage states that some scientists disagree with the accuracy of 100-year forecasting methods, and that even if accurate, a 100-year forecast does not tell us much about what might happen during the next ten years. The passage does say, however, that “all agree that there is some degree of global warming”.

Q18 Government scientists are not able to accurately forecast what the weather will do between now and the year 2100.

True False Cannot say

Although the passage does not explicitly state this, it does indicate that the government is publishing a number of hypotheses as to what weather change may mean by the year 2100. As they would be publishing forecasts rather than hypotheses if they could, it is logical to conclude that forecasting over that period is not possible.

Predicting earthquakes using observable phenomena like phases of the moon, cloud formations, weather conditions or animal behaviour is a controversial and, some would say, impossible task. There is little or no verifiable evidence to link any of these phenomena to predictions of actual seismic activity. Early detection, as a means of advance warning, is far more reliable than future prediction and can be done by measuring primary waves (referred to as P-Waves). These non-destructive waves travel faster through the earth's crust than the harmful and destructive secondary waves and so can provide a valuable, albeit short, advance warning. This effect of different speed waves can be likened to the relationship between light and sound; we see lightning before we hear the thunder. Some people believe that animals can detect P-Waves and that this is what causes them to start behaving strangely. Other theories advanced to explain their behaviour are that the animals are reacting to changes in low-frequency electromagnetic signals caused by the fracturing of crystalline rock in the fault lines.

Q19 If animals can detect primary waves, they could be used to predict earthquakes.

True **False** Cannot say

The passage differentiates between the early detection of an earthquake via primary waves and future prediction. Even if animals could detect primary waves, they could only be used as early detectors, not predictors.

Q20 Primary waves travel at the speed of sound.

True False **Cannot say**

The passage makes no mention of the velocity of a P-Wave, so we cannot say. All we are told is that primary waves travel faster than the harmful secondary waves of an earthquake, which in turn we are not given a speed for.

Q21 P-Waves, and the low-frequency electromagnetic signals some believe animals can sense, are not the same thing.

True False Cannot say

The passage states that some people believe animals can detect P-Waves. It then goes on to say that "Other theories" attribute animals' behaviour to the low-frequency electromagnetic signals caused by the fracturing of crystalline rock. These are cited in the passage as alternative explanations for the animals' behaviour, therefore the two phenomena must be different from each other.

Scientists have been able to successfully genetically modify plants, animals and micro-organisms for a number of years. They do this by manipulating genes to produce genetic changes (which could in theory occur naturally). Supporters of genetic modification claim that the benefits, such as being able to produce crops that are resistant to disease, will help alleviate world food shortages. Many environmentalists believe that the accidental release of genetically modified organisms into the environment is genetic pollution and they fear that the uncontrolled interbreeding of modified organisms with those occurring naturally will contaminate the environment in unforeseen and possibly dangerous ways. They point out that experiments done by researchers to reassure the public about the safety of GM crops have been carried out under scientifically controlled conditions which are far removed from the actual working conditions of food producers.

Q22 No experiments intended to demonstrate the safety of GM crops have been carried out in a scientifically controlled environment.

True **False** Cannot say

The passage states that the results of experiments “done by researchers to reassure the public about the safety of GM crops have been carried out under scientifically controlled conditions...”. So we are told that there have been such experiments undertaken in a scientifically-controlled environment.

Q23 Genetic change in plants is not necessarily evidence of the intervention of genetic scientists.

True False Cannot say

The passage refers to the manipulation of genes to produce genetic changes “which could in theory occur naturally”.

Q24 Some supporters of genetic modification believe that unless we expand our use of GM crops, increased global food shortages are inevitable.

True False **Cannot say**

The passage does not tell us if this view is or is not held by anyone. The passage comments only that supporters of genetic modification claim GM crops could help alleviate current shortages. Helping to alleviate shortages is not the same as preventing certain global shortages.

The population of the world is increasing by around 83 million per year. This figure actually represents a decline by almost 50% in the growth rate from its peak of 2.2% in 1963 and further reductions are expected over the coming decades. The 20th century saw the biggest global increase of all time in the population and if the current levels of growth continue the world population will be around 9 billion by the year 2042. The increases are due to increased life expectancy and reduced mortality rates resulting from improvements in healthcare and agricultural productivity. Growth rates vary by region. There are estimates that over 90% of population growth in the future will be in developing countries. Central and Eastern Europe are experiencing a net decrease of population with Japan and some Western European countries expected to follow suit within the next 10 years.

Q25 The annual rate of increase of the global population has fallen by 50% per annum since 1963.

True **False** Cannot say

The passage states that the current annual growth rate is 50% of its value in 1963. Therefore the rate has fallen by 50% in total since 1963, not 50% per annum.

Q26 The European Union will suffer a net decrease in population over the next 10 years.

True False **Cannot say**

The passage provides insufficient information to know whether this assertion is correct or not. It mentions only that some Western European countries are expected to experience a net decrease of population "within the next 10 years". It does not state whether this is will amount to a net decrease in the population of the European Union as a whole.

Q27 Global population is predicted to reach 9 billion by 2042 as the annual global population growth rate continues to rise.

True **False** Cannot say

The passage discusses a rising population but a reducing rate of increase. Part of the statement is true but not all of the statement is true.

There are statistics which suggest that in some of the most underdeveloped countries almost one half of the population is now in the 10-19 age range. These countries have experienced a much smaller decrease in birth rates than has been seen in more developed countries. Charities and other agencies are calling for additional funds to be made available to provide improved education for these young people as well as easier access to contraception. There has also been a rapid increase in the number of people aged 65 or older. In the next 50 years, 95% of this increase will happen in developing countries like India, while in countries like Japan, Germany and Italy the percentage of the population aged 65 or more is set to rise to 40%. Increases in the numbers of the very young and the very old place stress on societies and governments may find it difficult to cope with the demands of an increasing number of dependent elderly citizens in addition to providing healthcare and education for the young.

- Q28** Those countries that have high numbers of younger people will be better positioned in the longer term to cope with their growing older population.

True False **Cannot say**

The passage discusses the difficulties for a society trying to support an ageing population. It does not suggest that having a higher number of younger people in the population necessarily means that a society is better equipped to cope with an increasing older population. Neither does it suggest that such a society would be worse equipped to cope in the long run.

- Q29** In Japan and Germany less than 60% of the population is under 65 years of age.

True **False** Cannot say

The passage states that in these countries the percentage population aged 65 or over will reach 40% at some time in the future. That must mean that today it is less than 40%. If less than 40% of the population is 65 or older, then the remaining percentage of people under 65 must be more than 60%.

- Q30** Birth rate decreases are not restricted to developed countries.

True False Cannot say

The passage states that in some underdeveloped countries the birth rate decreases are smaller but this must indicate that they exist.