

Verbal Test 5

Solutions Booklet

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. For each statement you must select one of the following answers:

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

False: The statement is logically false from the information 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.

Open-source software should not be confused with freeware, or software that is available to install free of charge. While most open-source software is free, there are many other criteria – namely that the source code must be available to the general public via an open-source license, and that anyone is allowed to modify it. Any modifications made must also be distributed under the same terms as the original software. Proponents of the open-source movement believe this collaborative development methodology results in quicker improvements and software that can be easily adapted to users' needs. Financial savings are another main benefit of open-source software. Because numerous programmers are able to identify and fix problems, advocates believe open-source software is more reliable than proprietary software.

The majority of commercial software protects its source code to prevent competitors from developing a competing product. By only making a compiled, ready-to-run version available, software manufacturers retain full control over their product, which they argue ensures higher levels of quality and security. End-users must purchase a license fee, and typically benefit from a warranty and technical support. Although open-source software does not charge license fees to fund its development, it does not follow that it cannot be commercially viable. Developers can charge for installation, training and technical support. Alternatively, licenses for add-ons and additional software may be sold.

Q1 Open-source software is free, and is not released under a license.

True

False

Cannot say

False – the second sentence states that “most” (not all) open-source software is available free. The same sentence states that open-source software is available to the public via “an open-source license. Any modifications must also be distributed under the same terms as the original software.

Q2 Because it is developed collaboratively, open-source software is of better quality than proprietary software.

True

False

Cannot say

Cannot say – the passage presents arguments both for and against this. The first paragraph highlights “quicker improvements” and says that open-source software is “more reliable” than proprietary software. However, the second paragraph states controlling the source code ensures “higher levels of quality”.

Q3 One claimed advantage of open-source software over licenced software is greater flexibility.

True

False

Cannot say

True – the first paragraph states that (open-source software) “can be easily adapted to users’ needs.”

Q4 Technical support is not available for open-source software.

True

False

Cannot say

False – the second paragraph states, “Developers can charge for installation, training and technical support.”

Q5 It is prohibited to modify free open-source software and then license it for a fee.

True

False

Cannot say

True – while it is possible for anyone to modify open-source software, the first paragraph states: “Any modifications made must also be distributed under the same terms as the original software.”

The Ring of Fire is an area of frequent seismic and volcanic activity that encircles the Pacific basin. Approximately 90% of the world's earthquakes occur in this zone, including the largest ever recorded – Chile's 1960 Valdivia earthquake. There are an estimated 452 volcanoes – 75% of the world's total – located in this 40,000 km belt. On its Eastern side, the Ring of Fire stretches along South and Central America up to Canada and Alaska, and includes California's well-known San Andreas fault zone. To the west of the Pacific, it extends from Russia down to Japan, the Philippines, Indonesia and New Zealand. The Ring of Fire finishes in Antarctica, which is home to Mount Erebus, the world's southern-most active volcano.

The volcanic eruptions and earthquakes that characterise the Ring of Fire can be explained by plate tectonics, a unifying geological theory first expounded in the 1960s. The Earth's surface is comprised of tectonic plates that change size and shift over time. Earthquakes are caused when plates that are pushing against each other suddenly slip. Volcanoes occur only when two adjacent plates converge and one plate slides under the other, a process known as subduction. As it is pushed deeper into the Earth, the subducted plate encounters high temperatures and eventually molten rock rises to the surface and erupts.

Q6 Mexico is located along the eastern side of the Ring of Fire.

True

False

Cannot say

Cannot say – while it is correct that Mexico is part of the Ring of Fire, this is not a fact that is included in the passage and depends on knowledge gained outside of the passage.

Q7 Subduction occurs whenever two tectonic plates move in opposite directions.

True

False

Cannot say

Cannot say – the passage tells us that subduction is where two adjacent plates converge and one is pushed beneath the other. The passage does say that this definitely will or will not happen when two plates move in opposite directions (for example other parts of the moving plate may collide with a separate tectonic plate). Since we are not told explicitly if this is the case we have to respond cannot say.

Q8 There are no volcanoes further south than Mount Erebus.

True

False

Cannot say

Cannot say – while the passage states that Mount Erebus is “the world’s southern-most active volcano” there may be dormant volcanoes further south in Antarctica.

Q9 Molten rock rises during a volcanic eruption.

True

False

Cannot say

True – the last sentence tells us that “molten rock rises to the surface and erupts” during a volcanic eruption.

Q10 The world’s most severe earthquakes and volcanic eruptions occur within the Ring of Fire.

True

False

Cannot say

Cannot say – while the majority of the world’s earthquakes (90%) and volcanoes (75%) occur within the Ring of Fire, and the world’s largest earthquake (Valdivia) occurred within the Ring of Fire, the passage does not state whether the most severe volcanic eruption happened within this zone, or if they will in the future.

Humans have hunted whales for thousands of years, but in the 18th and 19th centuries whaling became an important industry, due to high demand for whale oil. Even after industrialisation, whaling carried on at unsustainable levels and by the mid-twentieth century whale populations had severely declined. The International Whaling Commission (IWC) was established in 1946 to ensure the conservation of whales and to oversee the development of the whaling industry.

In 1986, the IWC imposed a moratorium on commercial whaling to prevent the extinction of endangered whale species. As a result of the ban, whale stocks have recovered and thus some countries advocate the lifting of restrictions. Using loopholes in the moratorium, Japan, Norway and Iceland currently engage in commercial whaling and vigorously defend the practice as part of their cultural heritage. Anti-whaling activists, however, oppose whaling on ethical grounds. They argue that whales remain vulnerable, and that whales' intelligence gives them intrinsic value.

So intense is the whaling debate that the IWC, which requires a 75% vote to overturn the ban, has reached a stalemate. Even within nations backing a return to commercial whaling the issue is divisive. Not only has demand for whale meat declined, whale-watching has become a popular tourist activity, and an end to restrictions could threaten this profitable industry.

Q11 The International Whaling Commission is a regulatory organisation covering both commercial and environmental interests.

True

False

Cannot say

True – the last sentence of the first paragraph states that the IWC was established “to ensure the conservation of whales and to oversee the development of the whaling industry”.

Q12 Industrialisation led to reduced demand for whale oil in the twentieth century.

True

False

Cannot say

Cannot say – this is implied by the phrase “even after industrialisation” but it is important not to let knowledge gained outside of the passage influence your answer. Nowhere does the passage specifically state that industrialisation reduced the demand for whale oil.

Q13 Japan, Norway and Iceland are the only nations in favour of repealing the 1986 whaling moratorium.

True

False

Cannot say

Cannot say – while the second paragraph states that these nations are currently engaging in whaling, it does not follow that these are the only nations seeking to repeal the ban.

Q14 The whaling ban has resulted in the recovery of all whaling populations.

True

False

Cannot say

Cannot say – the second paragraph states “as a result of the ban whale stocks have recovered”, but later in the paragraph it states that anti-whaling activists argue that “whales remain vulnerable”.

Q15 It is arguable that whales are more valuable alive than dead, even in nations where whale meat is eaten.

True

False

Cannot say

True – the last paragraph cites whale-watching as a lucrative industry.

The Great Barrier Reef extends over 2,000 km, and has been built by tiny animals called coral polyps. Some of the Great Barrier Reef's coral "skeleton" deposits date over half a million years old. The individual coral polyps that comprise the reef grow very slowly, increasing by only 1-3 cm a year.

A cultural and ecological icon, the Great Barrier Reef has been visited by Aboriginal Australians for over 40,000 years and today attracts over two million tourists annually. Unfortunately the fragility of the reef's ecosystem is now threatened by the effects of climate change on the temperature of the water in which it sits: the Coral Sea. Over the last decade sea pollution caused by farm runoff has caused coral bleaching, thus diminishing the appearance of one of the world's greatest sights. The ecological damage also threatens those endemic creatures that rely upon the Great Barrier Reef for food and/or shelter. Many of these are themselves endangered species.

The Great Barrier Reef is in fact a system of over 3,000 reefs and islands. The northern section of the reef contains deltaic and ribbon reefs. The most common occurrences of fringing and lagoonal reefs are in the southern sections of the reef. In the middle section you are most likely to find crescentic reefs, although this type is also found in the northern reef.

Q16 There has been an aesthetic decline in the Great Barrier Reef.

True

False

Cannot say

True – the passage states that the appearance of the Reef has diminished from farm runoff.

Q17 The Great Barrier Reef is in the Coral Sea.

True

False

Cannot say

True – this is apparent from the fact that the passage refers to the "water in which it sits: the Coral Sea".

Q18 Ocean warming is hazardous to coral systems.

True

False

Cannot say

Cannot say - whilst the passage describes damage to the Great Barrier Reef caused by temperature changes in the Coral Sea, it does not specify that the waters have become warmer i.e. the damage could have been caused by colder sea water. It is important not to rely on outside knowledge when answering questions about a passage.

Q19 The northern section of the Great Barrier Reef only contains three types of reef.

True

False

Cannot say

Cannot say – the passage says “The northern section of the reef contains deltaic and ribbon reefs” and “In the middle section you are most likely to find crescentic reefs, although this type is also found in the northern reef”. However it does not tell us if these are the only three types or whether there are other types. So we cannot tell how many types of reef the northern section contains.

Q20 Farm runoff can affect sea water temperature.

True

False

Cannot say

Cannot say – the passage refers to the sea pollution caused by farm runoff, but does not specify that farm runoff has caused the changed temperature of the Coral Sea.

Sometimes called network marketing, multi-level marketing (MLM) is a form of sales whereby products are sold directly to customers using relationship referrals. In this hierarchical sales model, sales people receive a commission not only on their own sales, but also on the sales of those distributors they have recruited to the business. Multi-level marketing operations claim to be an easy way to generate a large income by selling products to family and friends. Does it sound too good to be true? It probably is. MLMs are the subject of controversy and numerous lawsuits: critics view them as pyramid schemes, which are illegal in most countries.

A business dependant on its sales force continually finding more and more new recruits is inherently unsustainable. Even if the product is of a high quality, at some point the market will become saturated. Although a few distributors high up in the chain can earn large amounts, distributors further down in the hierarchy will rarely profit – losing much of their commission to their superiors. Furthermore, distributors are often required to invest heavily in stock and pay for expensive training courses or motivational materials. While MLMs are not illegal and not all network marketing organisations rely on the recruitment of distributors, any business designed to sell an opportunity rather than a product is both economically flawed and ethically questionable.

Q21 Early entrants to an MLM are less likely to profit than new recruits to the business.

True

False

Cannot say

False – “Although a few distributors high up in the chain can earn large amounts, distributors further down in the hierarchy will rarely profit – losing much of their commission to their superiors.” Hence early entrants are more likely to profit than new recruits.

Q22 An exponentially growing sales force is incompatible with a finite number of customers.

True

False

Cannot say

True – paraphrases the first two sentences of the second paragraph.

Q23 Critics object to MLMs because they exploit relationships with family and friends.

True

False

Cannot say

Cannot say – it is not specified whether this is one of the objections to MLMs.

Q24 MLMs are fundamentally flawed because nobody makes any money.

True

False

Cannot say

False – the second paragraph states: “a few distributors high up in the organisation can earn large amounts”. Therefore it is false to say that nobody makes any money.

Q25 MLMs are a legal but morally dubious form of pyramid scheme.

True

False

Cannot say

Cannot say – this is an opinion held by some, rather than a fact. And furthermore, not all MLMs continually recruit new distributors.

Most countries generate radioactive waste, and everyone has a vested interest in high-level nuclear waste being stored safely. High-level nuclear waste, initially comprised of extremely hot spent fuel rods, is cooled down in temporary storage pods. These can then be stored indefinitely above- or below-ground in remote areas. Underground storage may seem to be a safer option. But is it a permanent solution for the thousands of years that are necessary? Associated questions also remain about the environmental impact of nuclear power generation.

There is the risk of contaminating ground water if burial occurs in deep holes. Underground sites must have dry surroundings in order to reduce the risk of water seeping through rock and corroding radioactive waste containers. In the United States, the proposed Yucca Mountain nuclear waste storage facility was to be located 1600 feet under the empty Nevada desert. Despite the government investing billions of dollars in the project, it was cancelled in 2009 due to public and political opposition.

The expense of finding and constructing suitable storage facilities is particularly acute for small countries. Many options have been considered, including burying waste under the ocean floor or under the polar ice. Each potential solution is problematic. Conducting the necessary monitoring beneath the sea floor, for example, would be very difficult.

Q26 Wherever nuclear waste is buried it needs to be monitored.

True

False

Cannot say

True – this can be inferred from the last sentence; “necessary monitoring” refers to nuclear waste storage.

Q27 Government subsidies have been used to construct underground storage facilities.

True

False

Cannot say

Cannot Say – the passage tells us that the US government contributed towards the cost of the Yucca Mountain underground storage facility, but it does not tell us whether this was a subsidy to a private project or government-owned.

Q28 There's a consensus about the safest option for storing nuclear waste.

True

False

Cannot say

False – each option is problematic and only some see underground storage as a safer option.

Q29 The two most important considerations for radioactive storage are safety and cost.

True

False

Cannot say

Cannot Say – whilst the passage focuses on safety and cost, it mentions other issues, such as monitoring, and does not prioritise safety and cost.

Q30 It costs more to store nuclear waste in smaller countries.

True

False

Cannot say

Cannot Say – the passage does not make this direct link.

-- End of Test --