**Перелік питань**

з навчальної дисципліни Іноземна мова професійного спрямування

за спеціальністю: 184 “Гірництво

освітнього ступеню «бакалавр»

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| №  п/п | Текст завдання |
| 1. | Rock is the hard material that most of the earth’s \_\_\_\_ is made up of. Mountains, coastlines, valleys and plains are made up of different kinds of rock. In some places soil lies over rock formations. They are often eroded and made smaller during the course of the earth’s history. Sometimes broken parts of rock lie on top of the earth’s surface. Tiny bits of them make up sand or soil. |
| 2. | People use rocks for many different things. They play an important role in the construction industry. \_\_\_\_, for example, is made up of stones, sand and gravel and mixed with cement. Rocks are also used to make medicine, weapons and cosmetics. Various types of rock have been used to make historic monuments, like the ancient Egyptian pyramids. |
| 3. | Rock that contains metals is called ore. Iron, copper, lead, gold, and uranium are among the most important ores. Aluminum is produced out of a rock called bauxite. Other rocks contain valuable minerals, like diamonds or other gems.  Ores are rocks |
| 4. | Rock is formed, destroyed and reformed in a cycle. It breaks into pieces through erosion. These pieces settle down onto the floor of oceans and rivers and become sedimentary rock. When such rock sinks deeper and deeper it turns into metamorphic rock.  During the ages rock breaks into pieces |
| 5. | Igneous rock is hot molten rock that comes from below the earth’s surface. It forms when magma comes to the surface from cracks in the Earth’s crust. When it emerges through pipes and erupts volcanoes are formed. Such rock hardens quickly when it cools down. Dark colored igneous rocks are called basalts. They are formed either on the ocean’s floor or where lava flows occur.  Igneous rock forms |
| 6. | Geologists are scientists who study the origin and composition of rocks. This gives them more information on the history of our planet. Rocks can also reveal how life evolved and which events shaped the Earth and the solar system.  The rock cycle shows |
| 7. | Metamorphic rock is rock that changes through heat and pressure in the deeper layers in the earth. The minerals in these rocks are chemically changed. Granite for example is turned into gneiss. Limestone turns into marble and sandstone can turn into quartzite.  When sediments sink into deeper layers |
| 8. | Sandstone and limestone are two of the most important and widespread sedimentary rocks. These sediments contain fossil fuels, like oil and gas. Limestone is made up of shells and skeletons of living things. It forms in shallow ocean water. The white cliffs of Dover are the most famous natural limestone areas on earth. Sandstone is made up of quartz that has been pressed over the ages. It is often white or yellowish.  Some rocks contain fossils |
| 9. | Geologists are scientists who study the origin and composition of rocks. This gives them more information on the history of our planet. Rocks can also reveal how life evolved and which events shaped the Earth and the solar system. Geologists are scientists who study the origin and composition of rocks. This gives them more information on the history of our planet. Rocks can also reveal how life evolved and which events shaped the Earth and the solar system.  Geologists study rock formations |
| 10. | People use rocks for many different things. They play an important role in the construction industry. Concrete, for example, is made up of stones, sand and gravel and mixed with cement. Rocks are also used to make medicine, weapons and cosmetics. Various types of rock have been used to make historic monuments, like the ancient Egyptian pyramids.  Sandstone and limestone are often used: |
| 11. | When rock is exposed to weather conditions it becomes subject to processes, such as freeze-thaw or solution weathering, that cause it to change and break down.  What is weathering? |
| 12. | When rock is exposed to weather conditions it becomes subject to processes, such as freeze-thaw or solution weathering, that cause it to change and break down. The freeze-thaw weathering process is also known as frost shattering.  What is frost shattering? |
| 13. | Water - eg from rainfall or melting snow and ice - If the air temperature drops below freezing, the water will freeze and expand by 9-10 per cent putting pressure on the rock.  The ice will melt when the temperature rises above freezing.  If this process happens repeatedly, the rock will weaken and eventually shatter into angular fragments.  The fragments may then be deposited as scree at the foot of a slope.  It is most effective where the temperature fluctuates around 0°C, eg on north-facing high altitude slopes in Snowdonia.  becomes trapped in a crack or joint in the rock.  When is frost shattering most effective? |
| 14. | Water - eg from rainfall or melting snow and ice - If the air temperature drops below freezing, the water will freeze and expand by 9-10 per cent putting pressure on the rock.  The ice will melt when the temperature rises above freezing.  If this process happens repeatedly, the rock will weaken and eventually shatter into angular fragments.  The fragments may then be deposited as scree at the foot of a slope.  It is most effective where the temperature fluctuates around 0°C, eg on north-facing high altitude slopes in Snowdonia.  What conditions are needed for frost shattering? |
| 15. | Water - eg from rainfall or melting snow and ice - If the air temperature drops below freezing, the water will freeze and expand by 9-10 per cent putting pressure on the rock.  The ice will melt when the temperature rises above freezing.  If this process happens repeatedly, the rock will weaken and eventually shatter into angular fragments.  The fragments may then be deposited as scree at the foot of a slope.  It is most effective where the temperature fluctuates around 0°C, eg on north-facing high altitude slopes in Snowdonia.  What is frost shattering also known as? |
| 16. | Water - eg from rainfall or melting snow and ice - If the air temperature drops below freezing, the water will freeze and expand by 9-10 per cent putting pressure on the rock.  The ice will melt when the temperature rises above freezing.  If this process happens repeatedly, the rock will weaken and eventually shatter into angular fragments.  The fragments may then be deposited as scree at the foot of a slope.  It is most effective where the temperature fluctuates around 0°C, eg on north-facing high altitude slopes in Snowdonia.  When is frost shattering becomes trapped in a crack or joint in the rock.  By how much does rock expand during frost shattering? |
| 17. | limestone solution process is also known as carbonation.  Limestone is made of calcium carbonate. When carbon dioxide is dissolved in rainwater, it makes a weak acid called carbonic acid.  When carbonic acid comes into contact with limestone and passes through joints and bedding planes, it reacts with the rock to form calcium bicarbonate.  The calcium bicarbonate is soluble and is carried away in solution, gradually weathering the limestone.  What is the limestone solution process also known as? |
| 18. | The limestone solution process is also known as carbonation.  Limestone is made of calcium carbonate. When carbon dioxide is dissolved in rainwater, it makes a weak acid called carbonic acid.  When carbonic acid comes into contact with limestone and passes through joints and bedding planes, it reacts with the rock to form calcium bicarbonate.  The calcium bicarbonate is soluble and is carried away in solution, gradually weathering the limestone.  What type of acid is involved in the weathering of limestone? |
| 19. | The limestone solution process is also known as carbonation.  Limestone is made of calcium carbonate. When carbon dioxide is dissolved in rainwater, it makes a weak acid called carbonic acid.  When carbonic acid comes into contact with limestone and passes through joints and bedding planes, it reacts with the rock to form calcium bicarbonate.  The calcium bicarbonate is soluble and is carried away in solution, gradually weathering the limestone.  Limestone is prone to which weathering process? |
| 20. | Water – e.g. from rainfall or melting snow and ice - If the air temperature drops below freezing, the water will freeze and expand by 9-10 per cent putting pressure on the rock.  The ice will melt when the temperature rises above freezing.  If this process happens repeatedly, the rock will weaken and eventually shatter into angular fragments.  The fragments may then be deposited as scree at the foot of a slope.  It is most effective where the temperature fluctuates around 0°C, e.g. on north-facing high altitude slopes in Snowdonia. When frost shattering becomes trapped in a crack or joint in the rock.  Frost shattering produces which feature at the foot of the slope? |
| 21. | The Yorkshire Dales is one of the 15 national parks in the UK. A national park is a protected area because of the wildlife, countryside and heritage. It has a unique landscape, which attracts both visitors and wildlife. Where is the Yorkshire National Park? |
| 22. | A national park's key aims are:  Conservation - to help conserve the area’s wildlife, landscape and cultural heritage.  Opportunity - to promote the understanding and enjoyment of the area by the public.  Community - to help strengthen the social and economic wellbeing of the local communities.  Which of the following is a key aim of a national park? |
| 23. | The predominant rock is limestone (a type of sedimentary rock.). Other rocks, such as Millstone Grit, are more resistant to erosion and form some of the higher altitude areas.  Which type of rock is limestone? |
| 24. | Areas of limestone pavement have been left (a large exposed platform of limestone with clints and grykes.). One forms an island in the centre of the quarry. The other is found to the south west. This retains some of the habitat for the wildlife. The quarry management team worked with the county council and the local community to retain and restore areas within the quarry. Community access was increased, so that the people could learn more about  What is a limestone pavement? |
| 25. | Characteristics of limestone:  It is a sedimentary rock.  It was formed from the material on the tropical sea beds.  The rock contains shells and fossils - and is mainly made of calcium.  The rock is weathered chemically - carbonic acid in the rainwater dissolves the limestone, which is then removed in solution by water.  It is pervious but not porous.  What are pervious rocks? |
| 26. | The freeze-thaw weathering process is also known as frost shattering. Water - eg from rainfall or melting snow and ice - becomes trapped in a crack or joint in the rock.  If the air temperature drops below freezing, the water will freeze and expand by 9-10 per cent putting pressure on the rock.  The ice will melt when the temperature rises above freezing.  If this process happens repeatedly, the rock will weaken and eventually shatter into angular fragments.  The fragments may then be deposited as scree at the foot of a slope.  It is most effective where the temperature fluctuates around 0°C, eg on north-facing high altitude slopes in Snowdonia.  Which of the following is an erosional landform associated with limestone? |
| 27. | Walkers may disrupt livestock, damage dry stone walls or leave gates open.  How might walkers conflict with farmers in the Yorkshire Dales? |
| 28. | Yorkshire Dales National Park Authority has housing development plans to build 230 new, affordable homes over the next 15 years. Develop railway lines, such as reconnection of Bolton Abbey to Skipton.  How is the Yorkshire Dales national park trying to solve the problem of increasing house prices? |
| 29. | Benefits of quarrying  Money goes into the local economy through the creation of jobs and payment of rates to councils.  Helps to diversify the economy, to help the economy become more stable.  Potential for investment in local infrastructure.  The rock is extracted and is available to consumers.  What is one benefit of quarrying? |
| 30. | Quarrying creates a scar on the landscape and is not a sustainable approach.  What is one problem associated with quarrying? |
| 31. | Latitude  Lines of latitude circle the Earth in an east-west direction. They are parallel.  They are different lengths, eg:  the equator is 40,075 km long  the Antarctic circle is 17,662 km long  the South Pole is 0 km long  Which has the greatest length: the equator or the Arctic Circle? |
| 32. | Important lines of latitude:  the equator (0°)  the Tropic of Cancer (23.5° north)  the Tropic of Capricorn (23.5° south)  the Arctic circle (66.5° north)  the Antarctic circle (66.5° south)  the North Pole (90° north)  the South Pole (90° south)  Which important line of latitude runs 23.5° north of the equator? |
| 33. | Lines of longitude run from the top of the Earth to the bottom. They are not parallel as lines of latitude are - they meet at a point at the north and south poles and are called meridians.  Which of the following answers describes longitude? |
| 34. | Longitudes divide the Earth into segments, like an orange. Some important details about these lines include:  The line which runs through Greenwich in London is called the Greenwich Meridian or Prime Meridian. The Prime Meridian is 0° longitude.  The Earth is then divided into 180° east and 180° west.  The International Date Line lies at 180° east/west.  Which important line of longitude runs through London? |
| 35. | Lines of longitude run from the top of the Earth to the bottom. They are not parallel as lines of latitude are - they meet at a point at the north and south poles and are called meridians.  What is another name for lines of longitude? |
| 36. | Because the world is a sphere, it is difficult to accurately project this on a two-dimensional map. When the world is flattened to fit on a piece of paper it is distorted. This makes some countries appear bigger than they are, compared to others, and the shape of land masses is changed slightly.  Why is it difficult to produce 2D maps? |
| 37. | The world has seven continents and five oceans.  Europe is a continent. It is an area on the Earth that contains many different countries, including the UK. The United Kingdom of Great Britain and Northern Ireland is made up of England, Northern Ireland, Scotland and Wales. The countries are divided further into regions. Counties are smaller areas. For example the counties of Dorset, Gloucestershire, Wiltshire, Devon and Cornwall are all part of the South West region.  How many continents are there? |
| 38. | The world has seven continents and five oceans. Europe is a continent. It is an area on the Earth that contains many different countries, including the UK. The United Kingdom of Great Britain and Northern Ireland is made up of England, Northern Ireland, Scotland and Wales. The countries are divided further into regions. Counties are smaller areas. For example the counties of Dorset, Gloucestershire, Wiltshire, Devon and Cornwall are all part of the South West region  Which of the following is a continent? |
| 39. | The world has seven continents and five oceans. Europe is a continent. It is an area on the Earth that contains many different countries, including the UK. The United Kingdom of Great Britain and Northern Ireland is made up of England, Northern Ireland, Scotland and Wales. The countries are divided further into regions. Counties are smaller areas. For example the counties of Dorset, Gloucestershire, Wiltshire, Devon and Cornwall are all part of the South West region  Which countries make up the United Kingdom? |
| 40. | The world has seven continents and five oceans. Europe is a continent. It is an area on the Earth that contains many different countries, including the UK. The United Kingdom of Great Britain and Northern Ireland is made up of England, Northern Ireland, Scotland and Wales. The countries are divided further into regions. Counties are smaller areas. For example the counties of Dorset, Gloucestershire, Wiltshire, Devon and Cornwall are all part of the South West region  Which of the following counties is in the south west of England? |
| 41. | Metamorphic rocks have been subjected to tremendous heat and/or pressure, causing them to change into another type of rock. They are usually resistant to weathering and erosion and are therefore very hard-wearing.  Rocks that have been subjected to tremendous heat and/or pressure, causing them to change into another type of rock are called: |
| 42. | Sedimentary rocks are formed from sediments that have settled at the bottom of a lake, sea or ocean, and have been compressed over millions of years. The sediment comes from eroded rocks carried there by rivers or ice, and from the skeletons of sea creatures.  Rocks that are formed from sediments that have settled at the bottom of a lake, sea or ocean are called: |
| 43. | Igneous rocks are formed by magma from the molten interior of the Earth. When magma erupts it cools to form volcanic landforms. If magma cools inside the Earth it forms intrusive rock, which may later be exposed by erosion and weathering.  Which of the following is a characteristic of igneous rocks? |
| 44. | Sedimentary rocks are formed from sediments that have settled at the bottom of a lake, sea or ocean, and have been compressed over millions of years. The sediment comes from eroded rocks carried there by rivers or ice, and from the skeletons of sea creatures.  Which of the following is a characteristic of sedimentary rock? |
| 45. | Igneous rocks are formed by magma from the molten interior of the Earth. When magma erupts it cools to form volcanic landforms. If magma cools inside the Earth it forms intrusive rock, which may later be exposed by erosion and weathering. Examples of igneous rocks include basalt and granite.  Basalt is an example of which type of rock? |
| 46. | Examples of metamorphic rocks include marble, which originates from limestone, slate, which originates from clay, and schists formed from sandstone or shale (sedimentary rocks).  Which metamorphic rock originates from limestone? |
| 47. | Igneous rocks are formed by magma from the molten interior of the Earth. When magma erupts it cools to form volcanic landforms. If magma cools inside the Earth it forms intrusive rock, which may later be exposed by erosion and weathering.  Rocks like granite which are formed from magma are called? |
| 48. | Examples of metamorphic rocks include marble, which originates from limestone, slate, which originates from clay, and schists formed from sandstone or shale (sedimentary rocks).  Slate is an example of which type of rock? |
| 49. | Examples of metamorphic rocks include marble, which originates from limestone, slate, which originates from clay, and schists formed from sandstone or shale (sedimentary rocks).  Limestone is an example of which type of rock? |
| 50. | Metamorphic rocks have been subjected to tremendous heat and/or pressure, causing them to change into another type of rock. They are usually resistant to weathering and erosion and are therefore very hard-wearing  Which of the following is a characteristic of metamorphic rock? |
| 51. | Quarrying was first used by early settlers in Britain for building stone and extracting metals for weapons. It continues as an industry that involves the extraction of rocks like limestone and slate.  When was quarrying first used in the UK? |
| 52. | Quarrying creates jobs in areas where there are limited opportunities. There is a huge demand for the products of quarrying, such as building stone and cement. This is linked to the demand for new homes in the UK.  What products are quarried in the UK? |
| 53. | Dinmor Parc Quarry is in Anglesey, North West Wales. It is in an area of outstanding natural beauty. The quarry closed in the early 1980s and afterwards the mining company helped to landscape the area so it blended with the coastal setting. The area was stabilised and the quarry floor prepared with small stones to encourage wildlife to return. To help maintain the economy for the community a fish farm was also created and this provided jobs.  Which of the following are example(s) of quarry restoration in the UK? |
| 54. | Areas of limestone pavement have been left (a large exposed platform of limestone with clints and grykes.). One forms an island in the centre of the quarry. The other is found to the south west. This retains some of the habitat for the wildlife. The quarry management team worked with the county council and the local community to retain and restore areas within the quarry. Community access was increased, so that the people could learn more about the wildlife and geology of the area.a natural limestone formation.  What is a limestone pavement? |
| 55. | Holme Park  Holme Park quarry is a limestone quarry that has been quarried for over 50 years. Within and close to the area there are sites of special scientific interest (A designated area in the UK which is protected.).  What is a site of special scientific interest? |
| 56. | Quarrying creates jobs in areas where there are limited opportunities. There is a huge demand for the products of quarrying, such as building stone and cement. This is linked to the demand for new homes in the UK. Quarrying provides income to local councils through taxation. Good communications are needed for transporting the products of quarrying. As a result many remote rural areas benefit from improved access. It is an important part of the UK economy. Over 30,000 people are employed in quarrying itself and related industries.  Which of the following is an advantage of quarrying? |
| 57. | Wildlife habitats are destroyed. Valuable agricultural land is taken away. Quarrying creates pollution from noise and dust. Heavy traffic causes pollution and congestion on narrow country roads. The vibrations from heavy traffic can cause damage to buildings. Quarries create visual pollution and tourists may be deterred by the scars on the landscape. Landfill sites and waste tips need to be monitored to check for a build up of gases, such as methane. Limestone is a non-renewable resource - so it can be argued that quarrying is unsustainable.  Which of the following is a disadvantage of quarrying? |
| 58. | To reduce lasting visual pollution, landscaping and tree planting could take place when the quarry is exhausted. Screens could also be set up around working quarries. Restrictions on the size of quarries and working hours could cut down on visual and noise pollution. Rail could be used to transport the quarried rock where possible.  Which of these is NOT a way to reduce the impact of quarrying? |
| 59. | The management of quarries can be encouraged to be more sustainable during and after quarrying. The quarrying company is expected to restore or improve the quarry site after they have extracted the rock. Measures can be put in place to enable this to happen in a more sustainable way.  Quarry restoration can take place. Areas that have already been quarried can be restored while works go in other areas of the quarry.  Quarry restoration is: |
| 60. | Disused quarries could be used as car parks. Flooded quarries can be used for water sports for the benefit of tourists and the local economy. Nature reserves and conservation areas can be reinstated in the landscape when a quarry is exhausted.  After the rock has been extracted, a quarry can be used as: |
| 61. | Igneous rock forms\_\_\_\_\_. |
| 62. | \_\_\_\_\_ is a fire that starts as a result of smoldering coal. |
| 63. | \_\_\_\_\_ is an industrial facility that generates electricity from primary energy. |
| 64. | \_\_\_\_\_ are hydrocarbons, primarily coal, fuel oil or natural gas, formed from the remains of dead plants and animals. |
| 65. | \_\_\_\_\_ is the process of constructing a building or infrastructure. |
| 66. | \_\_\_\_\_ is the process of producing food, feed, fiber and many other desired products by the cultivation of certain plants and the raising of domesticated animals (livestock). |
| 67. | \_\_\_\_\_ are solid substances that are present in nature and can be made of one element or more elements combined together (chemical compounds). |
| 68. | \_\_\_\_\_ is any material of natural or synthetic origin (other than liming materials) that is applied to soil or to plant tissues to supply one or more plant nutrients essential to the growth of plants. |
| 69. | \_\_\_\_\_ is a name that is usually used in reference to four types of gems: diamonds, rubies, sapphires, and emeralds. |
| 70. | A diamond is a type of \_\_\_\_\_\_. |
| 71. | Gold is a type of \_\_\_\_\_. |
| 72. | \_\_\_\_ are often burnt to generate energy. |
| 73. | The rock contains many types of \_\_\_\_\_. |
| 74. | \_\_\_\_\_ is a black substance which can be burnt. |
| 75. | \_\_\_\_\_ is a very strong metal used in construction. |
| 76. | The company built a factory which generates energy.  *Write a word or phrase that is similar in meaning to the underlined part.* |
| 77. | Rita studies the art of raising crops and livestock at college.  *Write a word or phrase that is similar in meaning to the underlined part.* |
| 78. | The farmer put minerals which make healthy soil on his field before planting the seed.  *Write a word or phrase that is similar in meaning to the underlined part.* |
| 79. | Mines provide a lot of materials for the industry of making products.  *Write a word or phrase that is similar in meaning to the underlined part.* |
| 80. | Benny has a lot of experience working in an industry that builds structures.  *Write a word or phrase that is similar in meaning to the underlined part.* |
| 81. | \_\_\_\_\_ is small, round stones. |
| 82. | \_\_\_\_\_ is a dark, thick oil. |
| 83. | \_\_\_\_\_ is a clear stone which is very hard and valuable. |
| 84. | \_\_\_\_\_ is a white or grey mineral, often added to soil. |
| 85. | \_\_\_\_\_ is very small pieces of rock, often found on beaches. |
| 86. | \_\_\_\_\_ is a white powder containing potassium. |
| 87. | The fire was a vengeful act of \_\_\_\_\_. |
| 88. | Find the synonym to the word «immense». |
| 89. | Which of the following is NOT a precious metal? |
| 90. | Which is the most common type of metal? |
| 91. | What is true about stainless steel? |
| 92. | \_\_\_\_\_ is a precious metal that is often yellow. |
| 93. | \_\_\_\_\_ is a base metal that is red. |
| 94. | \_\_\_\_\_ is a type of radioactive metal. |
| 95. | Sandstone and limestone are often used \_\_\_\_\_. |
| 96. | \_\_\_\_\_ is a toxic base metal that is white. |
| 97. | \_\_\_\_\_ is a type of metal that contains iron. |
| 98. | \_\_\_\_\_ is a type of metal that is radioactive . |
| 99. | \_\_\_\_\_ is a precious metal that is white. |
| 100. | Find nonmetals. |
| 101. | The \_\_\_\_\_ deposit contains low-grade coal. |
| 102. | A \_\_\_\_\_ contains sand and gravel. |
| 103. | What difference is there between the composition of Lava and Magma? |
| 104. | Which type of magma is most likely to erupt effusively from a shield volcano? |
| 105. | An igneous rock that is fine-grained or glassy must have \_\_\_\_\_. |
| 106. | Water has the power to split rocks because when it freezes, it \_\_\_\_\_. |
| 107. | Chemical weathering is most likely to take place in environments that are \_\_\_\_\_. |
| 108. | In which type of environment would you be most likely to observe Biological weathering? |
| 109. | In which type of environment would you be most likely to observe wind erosion? |
| 110. | Most erosion by the sea results from the action of \_\_\_\_\_. |
| 111. | What happens to the porosity of sediments during cementation? |
| 112. | \_\_\_\_\_ is mining by piping water down a vertical hole. |
| 113. | \_\_\_\_\_ is excavating a river or sea bed. |
| 114. | \_\_\_\_\_ is using high pressure water to remove deposits. |
| 115. | Igneous rocks like granite are often used for street paving and kerb stones in city centers because \_\_\_\_\_ |
| 116. | \_\_\_\_\_ is drilling into the steep wall of a quarry. |
| 117. | What is the approximate age of the oldest oceanic crust. |
| 118. | Igneous rocks that form from magma are known as \_\_\_\_\_. |
| 119. | Cirrus clouds are \_\_\_\_\_. |
| 120. | The layer that separates crust from core is the \_\_\_\_\_. |
| 121. | Beach material can be moved in different ways. These are:  Solution - when minerals in rocks like chalk and limestone are dissolved in sea water and then carried in solution. The load is not visible.  Suspension - small particles such as silts and clays are suspended in the flow of the water.  Saltation – where small pieces of shingle or large sand grains are bounced along the sea bed.  Traction – where pebbles and larger material are rolled along the sea bed.  *Beach material can be moved in … ways.* |
| 122. | Mine managers are responsible for planning, organizing and supervising the activities of a mine. They are responsible for planning future mine production, overseeing the development and tunneling of the mine, checking the quality of stone, rock and minerals and inspecting the mine for danger.  *A mine manager is not responsible for:* |
| 123. | Of course, the surveyor must be familiar with mathematics, especially the application of trigonometry. Most traditional surveying is plane surveying, which does not take into account the curvature of the earth. For most surveying projects, the curvature of the earth is slight enough that the effects can be ignored, greatly simplifying the calculations involved. For projects involving greater distances, the curvature of the earth must be taken into account; this is geodetic surveying, an application of geodesy.  *The surveyor mustn’t be familiar with…* |
| 124. | Coal mining developed during the Industrial Revolution, and coal provided the main source of primary energy for industry and transportation in industrial areas from the 18th century to …. |
| 125. | Surveying plays an extremely important role in many branches of engineering. As such, surveyors use elements of mathematics (geometry and trigonometry), physics, engineering and the law. All engineers must know the limits of accuracy possible in construction.  Surveyors don’t use elements of … |
| 126. | Coal was one of man's earliest sources of heat and light. The Chinese were known to have used it more than 3,000 years ago. The first recorded discovery of coal in this country was by French explorers…..  *Where was the coal founded?* |
| 127. | What is not true aboutopen-pit mining? |
| 128. | After mining finishes, the mine area must undergo rehabilitation.  *What does the rehabitation mean?* |
| 129. | Ancient Egyptians mined malachite at Maadi. At first, Egyptians used the bright green malachite stones for ornamentations and pottery. Later, between 2613 and 2494 BC, large building projects required expeditions abroad to the area of Wadi Maghara in order “to secure minerals and other resources not available in Egypt itself.” Quarries forturquoise and copper were also found ….  *Where was cooper found?* |
| 130. | Mining as an industry underwent dramatic changes in medieval Europe. The mining industry in the early Middle Ages was mainly focused on the extraction of copper and iron. Other precious metals were also used mainly for gilding or coinage. Initially, many metals were obtained through open-pit mining, and ore was primarily extracted from shallow depths, rather than though the digging of deep mine shafts. Around the 14th century, the demand for weapons, armour, stirrups, and horseshoes greatly increased the demand for..  *What was in great demand?* |
| 131. | On the continent all mineral deposits belonged to the crown, and this regalian right was stoutly maintained; but in England it was pared down to gold and silver (of which there was virtually none)...  *Why it was pared down?* |
| 132. | Diavik Diamond Mine, Canada – An active diamond mine that has become an important part of the regional economy, employing 700 and producing 1,500 kg (3,300 lb) of diamonds a year.  Located on a small 20 square km island, it is just 220 km (140 mi) from the Arctic Circle.  *Which fact is not true?* |
| 133. | The widespread adoption of agricultural innovations such as the iron plowshare, as well as the growing use of metal as a building material, was also a driving force in the tremendous growth of the iron industry during this period. Inventions like the arrastra were often used by the Spanish to pulverize ore after being mined. This device was powered by animals and used the same principles  *What it was used for?* |
| 134. | There are ancient, prehistoric copper mines along…, and metallic copper was still found there, near the surface, in colonial times in the USA. |
| 135. | More than half of them had travelled overland across the American continent. «Gold fever» began to spread. Settlements throughout the United States were deserted. Homes, farms and stores were abandoned as everybody raced for California.  *Which fact is not true?* |
| 136. | Mining in the United States became prevalent in the 19th century, and the General Mining Act of 1872 was passed to encourage mining of federal lands. As with the California Gold Rush in the mid-19th century, mining for minerals and precious metals, along with ranching.  *Why it was a driving factor in the Westward Expansion to the Pacific coast?* |
| 137. | Sedimentary rocks are formed from sediments that have settled at the bottom of a lake, sea or ocean, and have been compressed over millions of years. The sediment comes from eroded rocks carried there by rivers or ice, and from the skeletons of sea creatures.  *Rocks that are formed from sediments that have settled at the bottom of a lake, sea or ocean are called:* |
| 138. | Igneous rocks are formed by magma from the molten interior of the Earth. When magma erupts it cools to form volcanic landforms. If magma cools inside the Earth it forms intrusive rock, which may later be exposed by erosion and weathering.  *Which of the following is a characteristic of igneous rocks?* |
| 139. | In the early 20th century, the gold and silver rush to the western United States also stimulated mining for base metals such as copper, lead, and iron as well as coal. Areas in modern Montana, Utah, Arizona, and later Alaska became predominate suppliers of copper to the world, which was increasingly demanding copper …  *What was the purpose for demanding cooper?* |
| 140. | Mining techniques can be divided into two common excavation types: surface mining and sub-surface (underground) mining. Today, surface mining is much more common.  *Which fact is true?* |
| 141. | Igneous rocks are formed by magma from the molten interior of the Earth. When magma erupts it cools to form volcanic landforms. If magma cools inside the Earth it forms intrusive rock, which may later be exposed by erosion and weathering. Examples of igneous rocks include **basalt**and **granite.**  *Rocks like granite which are formed from magma are called?* |
| 142. | Metamorphic rocks have been subjected to tremendous heat and/or pressure, causing them to change into another type of rock. Examples of metamorphic rocks include **marble**, which originates from limestone and **slate**, which originates from clay.  *Slate is an example of which type of rock?* |
| 143. | Surface mining is done by removing (stripping) surface vegetation, dirt, and, if necessary, layers of bedrock in order to reach buried ore deposits.  *Techniques of surface mining include:* |
| 144. | landfill mining involves sites where landfills are |
| 145. | In 1848 gold was discovered in California, and soon thousands of prospectors (the «49ers») rushed there, hoping to make their fortune. By spring 1849 there were 40,000 miners in California.  *What was a «49er»?* |
| 146. | In 1848 gold was discovered in California, and soon thousands of prospectors (the «49ers») rushed there, hoping to make their fortune. By spring 1849 there were 40,000 miners in California. In 1850 California set itself up as a state of the USA, with a governor.  *In which year did California set itself up as a state of the USA?* |
| 147. | About 80 people, led by George Donner, set out from Missouri in May 1846, following the famous «trailblazer» Lansford W Hastings.  *The Donner Party tried to follow the route of a famous trailblazer. What was his name?* |
| 148. | In 1850 California set itself up as a state of the USA, with a governor. In time, mining camps such as Virginia City became large towns.  *Which of these modern towns started off as a mining camp?* |
| 149. | The first white Americans to move west were the mountain men, who went to the Rockies to hunt beaver, bear and elk in the 1820s and 1830s.  *In the 1820s and 1830s, what did the mountain men hunt?* |
| 150. | In 1848 gold was discovered in California, and soon thousands of prospectors (the «49ers») rushed there, hoping to make their fortune. By spring 1849 there were 40,000 miners in California. This was the start of the gold rush, which lasted from 1849 to 1856.  *Gold was discovered in California in 1848. How many miners were there in California in the spring of 1849?* |
| 151. | Few miners made their fortune from gold. But they spent the savings they had used to go mining with, and this kick-started the California economy. When the men finally gave up their hopes for gold, they moved onto the land and settled there as farmers.  *What trade did most men turn to when they gave up their hopes for gold?* |
| 152. | Methods include shrinkage stope mining, which is mining upward, creating a sloping underground room, long wall mining, which is grinding a long ore surface underground, and room and pillar mining, which is removing ore from rooms while leaving pillars in place to support the roof of the room. Room and pillar mining often leads to retreat mining, in which supporting pillars are removed as miners retreat, allowing the room to cave in, thereby loosening more of.  *What for are used those methods?* |
| 153. | Large drills are used to sink shafts, excavate stopes, and obtain samples for analysis.  What is the main aim of large drills? |
| 154. | Normal shifts of miners were usually 12-14 hours a day, with extra time required during busy periods. Workers were often required to clean their machines during their mealtimes.  *How many hours a day did workers work?* |
| 155. | Mineral processing (or mineral dressing) is a specialized area in the science of metallurgy that studies the mechanical means of… |
| 156. | Mining companies in most countries are required to follow stringent environmental and rehabilitation codes in order to |
| 157. | A diamond is one giant molecule of carbon atoms. Diamond is extremely hard and has a high melting point. For this reason, it is very useful in cutting tools. The cutting edges of discs used to cut bricks and concrete are tipped with diamonds.  *Why is diamond used to coat metal drill bits?* |
| 158. | Every atom in a diamond is bonded to its neighbours by four strong covalent bonds, leaving no free electrons and no ions. Each carbon atom in a graphite is bonded into its layer with three strong covalent bonds. This leaves each atom with a spare electron, which together form a delocalised «sea» of electrons loosely bonding the layers together.  *What type of structure do both diamond and graphite have?* |
| 159. | Saudi Arabia, Russia and the USA produce the most oil. Around 66% of global oil supplies are found in the Middle East. As technology improves, new supplies can be discovered and accessed more easily. There are huge, barely tapped reserves in South America, Africa and the Arctic.  The USA, Russia and China have the largest coal reserves. Around 70 countries have coal reserves and there is enough coal left to last for another 112 years. Russia, Iran and Qatar have the largest natural gas reserves.  *Which three countries have the largest supply of oil?* |
| 160. | It is estimated that global energy consumption in 2040 will be 56% higher than in 2010. The growth in energy consumption will largely take place in developing countries.  *Which countries will see the biggest increases in energy consumption?* |
| 161. | When did the Gold Rush begin? |
| 162. | On January 24, 1848, James W. Marshall, a foreman working for Sacramento pioneer John Sutter, found shiny metal in the tailrace of a lumber mill Marshall was building for Sutter on the American River.  *What was the metal?* |
| 163. | The first gold found in California was made on March |
| 164. | The first people to rush to the goldfields, beginning |
| 165. | Word of the Gold Rush spread slowly at first. The earliest gold-seekers were people who lived near California or people who heard the news from ships on the fastest sailing routes from California. The first large group of Americans to arrive were several thousand Oregonians who came down to… |
| 166. | By the beginning of 1849, word of the Gold Rush had spread around the world, and an overwhelming number of gold-seekers and merchants began to arrive from virtually every continent. The largest group of forty-niners in 1849 were Americans, arriving by… |
| 167. | Forty-niners came from Latin America, particularly from the Mexican mining districts near Sonora and Chile…  *Who were those miners?* |
| 168. | There were also women in the Gold Rush. However, their numbers were small. Of the 40,000 people who arrived by ship in the San Francisco harbor in 1849, only 700 were women (including poor women, wealthy women, entrepreneurs, prostitutes, single women and married women).They were of various ethnicities including Anglo-American, African-American,Hispanic, Native, European, Chinese, and Jewish. The reasons they came varied: some came with their husbands, refusing to be left behind to fend for themselves, some came because their husbands sent for them, and others came (singles and widows) for the adventure and economic opportunities.On the trail many people died from…  *Why did they die?* |
| 169. | California lay at the bottom of a large sea; underwater volcanoes deposited lava and minerals (including gold) onto the sea floor. By tectonic forces these minerals and rocks came to the surface of… |
| 170. | Where does the world’s biggest diamond mine locate? |
| 171. | When was cut-and-fill mining method used at first? |
| 172. | The Jwaneng diamond mine in Botswana is an open-pit mine located 160 miles south-west of Gaborone. It was estimated to contain proven and probable diamond reserves of ….. |
| 173. | What is the current operating depth of the Jwaneng pit? |
| 174. | The Udachny diamond mine, located in the Yakutia region of Russia, ranks as the world’s third-largest diamond mine by… |
| 175. | The Verkhne-Munskoe deposit comprises five pipes including Zapolarnaya, Deimos, Novinka, Komsomolskaya-Magnitnaya, and Poiskovaya. The deposit was commissioned in October 2018 and the first gem-quality diamond was recovered from the Zapolarnaya pipe in November 2018.  *How much pipes does it contain?* |
| 176. | Nyurba is an open-pit mine located 200km northwest of Nyurba, Russia.  *Who is operated it by?* |
| 177. | Producing since 1971, Orapa is the oldest of the four diamond mines operated by Debswana. Mining is currently being undertaken at a depth of… |
| 178. | The Catoca diamond mine is an open-pit located near Saurimo, roughly 840km east of Luanda, Angola. It is estimated to contain up to 130Mct of mineable diamonds.The diamond mine is operated by Sociedade Mineira de Catoca, a joint venture of Angola’s state-owned diamond company Endiama, Alrosa, and China-based company Lev Leviev International. The mine has been operational since 1993.  *What is true?* |
| 179. | The Venetia diamond mine, located 80km from Musina in Limpopo Province of South Africa, had more than 92.4Mct of diamond reserves as of December 2018. Venetia is the biggest diamond producing mine in South Africa. It produced 4.2Mct of diamonds in 2018. The deposit comprises 12 kimberlite pipes. It is owned and operated by… |
| 180. | Where is located Lomonosov deposit? |