ourdiu.com | Shared by Nahid

Daffodil International University

Department of Computer Science and Engineering
Faculty of Science & Information Technology
Final Examination, Summer 2022
Course Code: ENG123: Course Title: Writing & Comprehension
Sections & Teachers: All

Time: 2:00 Hrs **Marks: 40**

[The figures in the right margin indicate the full marks and corresponding course outcomes. All portions of each question must be answered sequentially.]

Reading	20 x 1 = 20 marks	CO1

Reading Passage 1: Read the following passage and answer questions 1-2.

Can we prevent the poles from melting?

A growing number of scientists are looking to increasingly ambitious technological fixes to halt the tide of global warming. Mark Rowe reports.

A. Such is our dependence on fossil fuels, and such is the volume of carbon dioxide we have already released into the atmosphere, that most climate scientists agree that significant global warming is now inevitable – the best we can hope to do is keep it at a reasonable level, and even that is going to be an uphill task. At present, the only serious option on the table for doing this is cutting back on our carbon emissions, but while a few countries are making major strides in this regard, the majority are having great difficulty even stemming the rate of increase, let alone reversing it. Consequently, an increasing number of scientists are beginning to explore alternatives. They all fall under the banner of *geoengineering* – generally defined as the intentional large-scale manipulation of the environment.

B. Geoengineering has been shown to work, at least on a small, localized scale, for decades. May Day parades in Moscow have taken place under clear blue skies, aircraft having deposited dry ice, silver iodide and cement powder to disperse clouds. Many of the schemes now suggested to do the opposite, and reduce the amount of sunlight reaching the planet. One scheme focuses on achieving a general cooling of the Earth and involves the concept of releasing aerosol sprays into the stratosphere above the Arctic to create clouds of sulphur dioxide, which would, in turn, lead to global dimming. The idea is modelled on historical volcanic explosions, such as that of Mount Pinatubo in the Philippines in 1991, which led to a short term cooling of global temperatures by 0.5"C. The aerosols could be delivered by artillery, high flying aircraft or balloons.

C. Instead of concentrating on global cooling, other schemes look specifically at reversing the melting at the poles. One idea is to bolster an ice cap by spraying it with water. Using pumps to carry water from below the sea ice, the spray would come out as snow or ice particles, producing thicker sea ice with a higher albedo (the ratio of sunlight reflected from a surface) to reflect summer radiation. Scientists have also scrutinized whether it is possible to block ice fjords in Greenland with cables that have been reinforced, preventing icebergs from moving into the sea. Veli Albert Kallio, a Finnish scientist, says that such an idea is impractical because the force of the ice would ultimately snap the cables and rapidly release a large quantity of ice into the sea. However, Kallio believes that the sort of cables used in suspension bridges could potentially be used to divert, rather than halt, the southward movement of ice from Spitsbergen. 'It would stop the ice moving south, and local currents would see them float northwards,' he says.

D. A number of geoengineering ideas are currently being examined in the Russian Arctic. These include planting millions of birch trees: the thinking, according to Kallio, is that their white bark would increase the amount of reflected sunlight. The loss of their leaves in winter would also enable the snow to reflect radiation. In contrast, the native evergreen pines tend to shade the snow and absorb radiation. Using ice-breaking vessels to deliberately break up and scatter coastal sea ice in both Arctic and Antarctic waters in their respective autumns, and diverting Russian rivers to increase cold-water

CamScanner

ourdiu.com | Shared by Nahid

(low to ice-forming areas, could also be used to slow down warming, Kallio says. 'You would need the wind to blow the right way, but in the right conditions, by letting ice float free and head north, you would enhance ice growth.'

E. But will such ideas ever be implemented? The major counter-arguments to geoengineering schemes are, first, that they are a 'cop-out' that allow us to continue living the way we do, rather than reducing carbon emissions; and, second, even if they do work, would the side-effects outweigh the advantages? Then there's the daunting prospect of upkeep and repair of any scheme as well as the consequences of a technical failure. 'I think all of us agree that if we were to end geoengineering on a given day, then the planet would return to its pre-engineered condition very rapidly, and probably within 10 to 20 years,' says Dr. Phil Rasch, chief scientist for climate change at the US-based Pacific Northwest National Laboratory. 'That's certainly something to worry about. I would consider geoengineering as a strategy to employ only while we manage the conversion to a non-fossil- fuel economy.' 'The risk with geoengineering projects is that you can "overshoot",' says Dr. Dan Lunt, from the University of Bristol. 'You may bring global temperatures back to pre-industrial levels, but the risk is that the poles will still be warmer than they should be and the tropics will be cooler than before industrialization.'

F. The main reason why geoengineering is countenanced by the mainstream scientific community is that most researchers have little faith in the ability of politicians to agree – and then bring in – the necessary carbon cuts. Even leading conservation organizations believe the subject is worth exploring. As Dr. Mortin Sommerkorn, a climate change advisor says. 'But human-induced climate change has brought humanity to a position where it is important not to exclude thinking thoroughly about this topic and its possibilities despite the potential drawbacks. If, over the coming years, science tells us about an ever-increased climate sensitivity of the planet – and this isn't unrealistic – they may be best served by not having to start our thinking from scratch.'

1 **Reading Passage 1 has six paragraphs A-F. Which paragraph contains the following information?**

Write the correct letter A-F after the information below. NB You may use any letter more than once.

i. the existence of geoengineering projects distracting from the real task of changing the way we live
ii. circumstances in which geoengineering has demonstrated success
iii. maintenance problems associated with geoengineering projects
iv. support for geoengineering being due to a lack of confidence in governments more success in fighting climate change in some parts of the world than others

2 **Look at the following people and the list of opinions below. Match each person with the correct opinion A-E. Write the correct letter, A-E after the opinions below:**

A. Phil Rasch	B. Dan Lunt	C. Martin Sommerkorn

List of opinions

i. The problems of geoengineering shouldn't mean that ideas are not seriously considered.
ii. Some geoengineering projects are more likely to succeed than others.
iii. Geoengineering only offers a short-term solution.
iv. A positive outcome of geoengineering may have a negative consequence elsewhere.
v. Most geoengineering projects aren't clear in what they are aiming at.

Reading Passage 2: Read the following passage and answer questions 3-4.

America's oldest art?

A. Set within treacherously steep cliffs, and hidden away valleys of northeast Brazil, is some of Southeast America's most significant and spectacular rock-art. Most of the art so far discovered from the ongoing excavations comes from the archaeologically – important National Park of the Serra da Capivara in the state of Piaui, and it is causing quite a controversy. The reason for the uproar? The art is being dated to around 25.CC0 or perhaps. According to some archaeologists, even 36,000 years ago. If correct, this is set to challenge the wide-field view that America was first colonized from the north, via the Bering Straits

CamScanner

ourdiu.com | Shared by Nahid

rom eastern Siberia at around 10.000 BC. only moving down into Central and South America in the nillennia thereafter.

3. Prior to the designation of 130,000 hectares as a National Park, the rock-art sites were difficult to get to nd often dangerous to enter. In ancient times, this inaccessibility must have heightened the importance of he sites, and indeed of the people who painted on the rocks. Wild animals and human figures dominate he art and are incorporated into often-complex scenes involving hunting, supernatural beings, fighting nd dancing. The artists depicted the animals that roamed the local ancient brushwood forest. The large nammals are usually hunted in groups and tend to be shown a running stance, as they trying to escape rom hunting parties. Processions – lines of human and animal figures – also appear of great importance o these ancient artists. Might such lines represent family units or groups of warriors? On a number of panels, rows of stylized figures, some numbering up to 30 individual figures, were painted using the natural undulating contours of the rock surface, so evoking the contours of the seconding landscape. Other interesting, but very rare, occurrences are scenes that show small human figures holding on to and dancing around a tree, possibly involved in some form of a ritual dance.

C. Due to the favourable climatic conditions. the imagery on many panels is in a remarkable state of preservation. Despite this, however, there are serious conservation issues that affect their long-term survival. The chemical and mineral quantities of the rock on which the imagery is panted are fragile and on several panels it is unstable. As well as the secretion of sodium carbonate on the rock surface, complete panel sections have, over the ancient and recent past, broken away from the main rock surface. These have then become buried and sealed into sometimes-ancient floor deposits. Perversely, this form of natural erosion and subsequent deposition has assisted archaeologists in dating several major rock-art sites. Of course, dating the art is extremely difficult oven the non-existence of plant and animal remains that might be scientifically dated. However, there am a small number of sites in the Serra da Capivara that are giving up their secrets through good systematic excavation. Thus, at Toca do Roqi.omo da Pedra Furada. rock-art researcher Nide Guidon managed to obtain a number of dates. At different levels of excavation, she located fallen painted rock fragments, which she was able to dale to at least 36,000 years ago. Along with toe painted fragments, crude stone tools were found. Also discovered were a series of scientifically datable sites of fireplaces, or hearths, the earliest dated to 46,000 BC. arguably the oldest dates for human habitation in America.

D. However, these conclusions are not without controversy. Critics, mainly from North America, have suggested that the hearths may, in fact, be a natural phenomenon, the result of seasonal brushwood fires. Several North American researchers have gone further and suggested that the rock-art from this site dates from no earlier than about 3,730 years ago, based on the results of limited radiocarbon dating. Adding further fool to the general debate is the fact that the artists in the area of the National Hark tended not to draw over old motifs (as often occurs with rock-art), which makes it hard to work out the relative chronology of the images or styles. However, the diversity of imagery and the narrative the paintings created from each of the many sites within the National Park suggests different artists were probably making their art at different times and potentially using each site over many thousands of years.

E. With fierce debates thus raging over to dating, where these artists originate from is also still very much open to speculation. The traditional view ignores the early dating evidence from the South American rock-art sites. In a revised scenario, some anthropologists are now suggesting that modern humans may" have migrated from Africa using the strong currents of the Atlantic Ocean some 63.000 years or more ago, while others suggest more improbable colonization coming from the Pacific Ocean. Yet, while the ether hypothesis is plausible, there is still no supporting archaeological evidence between the South American coastline and the interior. Rather, it seems possible that there were a number of waves of human colonization of the Americas occurring possibly over a 60,000-100,000 year period, probably using the Bering Straits as a land bridge to cross into the Americas.

F. Despite the compelling evidence from South America, it stands alone: the earliest secure human evidence yet found in die state of Oregon in North America only dates to 12,300 years BC. So this is a fierce debate that is likely to go on for many more years. However, the splendid rock-art and its allied anthropology of northeast of Brazil, described here, is playing a huge and significant role in the discussion.

3 **Choose the correct letter, A, B, C or D.** Write the correct letter on your answer sheet.

CamScanner

ourdiu.com | Shared by Nahid

i. According to the first paragraph, the rock-art in Serra da Capivara may revolutionize accepted ideas about .....

A. the way primitive people lived in North America.
B. the date when the earliest people arrived in South America.
C. the origin of the people who crossed the Bering Straits.
D. the variety of cultures which developed in South America.

ii. How did the ancient artists use the form of the rock where they painted?

A. to mimic the shape of the countryside nearby
B. to emphasize the shape of different animals
C. to give added light and shade to their paintings
D. to give the impression of distance in complex works

iii. In the fourth paragraph, what does the winter say is unusual about the rock-artists of Serra da Capivara?

A. They had a very wide range of subject matter.
B. Their work often appears to be illustrating a story.
C. They tended to use a variety of styles in one painting.
D. They rarely made new paintings on top of old ones.

4 On your answer sheet, write

YES, if the statement agrees with the claims of the writer
NO, if the statement contradicts the claims of the writer
NOT GIVEN, if it is impossible to say what the writer thinks about this

i. Archaeologists have completed their survey of the rock-art in Piaui.
ii. The location of the rock-art suggests that the artists had a significant role in their society.
iii. The paintings of animals show they were regarded as sacred by the ancient humans.
iv. Some damage to paintings is most likely due to changes in the weather of the region.
v. The fact that some paintings wore buried is useful to archaeologists.
vi. The tools found near some paintings were probably used for hunting animals.
vii. The North American researchers have confirmed Niede Guidons dating of the paintings.

Grammar	**5 x 1 = 5 marks**	**CO 2**

5 Some of these are correct sentences. Others are fragments or run-ons. Write C if correct and I if fragments or run-ons. If incorrect, write the correct ones too.

i. Rubi, the chef, struggles to find fresh mozzarella in the stores.
ii. Simu, who was a fantastic chef skilled in making pasta and pizzas.
iii. After working in a restaurant for ten years, Ruhina opened her own Turkish cafe, it was called "PizzaTurk."
iv. Kiran, who was skilled in making pasta, did not enjoy eating it.
v. She loved pizza.

Writing	**15 x 1 = 15 marks**	**CO 3**

6 Children who grow up in families which are short of money are better prepared with the problems of adult life than children who are brought up by wealthy parents. To what extent do you agree or disagree? Write an essay supporting your arguments based or your knowledge and experience. Write at least 250 words.

CamScanner