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Daffodil International University

Faculty of Science & Information Technology
Department of Computer Science and Engineering
Mid-term Examination, Fall-2025
Course Code: ENG 102 Course Title: Writing and Comprehension
Level: 1 Term: 2 Batch: 69

Exam Duration: 1.5 Hours **Marks: 25**

Answer ALL Questions

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

1.		**Reading**	1x 15= 15 Marks	CO1
		Reading Passage 1: Read the following passage and answer the following questions		
		Roman tunnels *The Romans, who once controlled areas of Europe, North Africa and Asia Minor, adopted the construction techniques of other civilizations to build tunnels in their territories* The Persians, who lived in present-day Iran, were one of the first civilizations to build tunnels that provided a reliable supply of water to human settlements in dry areas. In the early first millennium BCE, they introduced the qanat method of tunnel construction, which consisted of placing posts over a hill in a straight line, to ensure that the tunnel kept to its route, and then digging vertical shafts down into the ground at regular intervals. Underground, workers removed the earth from between the ends of the shafts, creating a tunnel. The excavated soil was taken up to the surface using the shafts, which also provided ventilation during the work. Once the tunnel was completed, it allowed water to flow from the top of a hillside down towards a canal, which supplied water for human use. Remarkably, some qanats built by the Persians 2,700 years ago are still in use today. They later passed on their knowledge to the Romans, who also used the qanat method to construct water-supply tunnels for agriculture. Roman qanat tunnels were constructed with vertical shafts dug at intervals of between 30 and 60 meters. The shafts were equipped with handholds and footholds to help those climbing in and out of them and were covered with a wooden or stone lid. To ensure that the shafts were vertical, Romans hung a plumb line from a rod placed across the top of each shaft and made sure that the weight at the end of it hung in the center of the shaft. Plumb lines were also used to measure the depth of the shaft and to determine the slope of the tunnel. The 5.6-kilometer-long Claudius tunnel, built in 41 CE to drain the Fucine Lake in central Italy, had shafts that were up to 122 meters deep, took 11 years to build and involved approximately 30,000 workers. By the 6th century BCE, a second method of tunnel construction appeared called the counter-excavation method, in which the tunnel was constructed from both ends. It was used to cut through high mountains when the qanat method was not a practical alternative. This method required greater planning and advanced knowledge of surveying, mathematics and geometry as both ends of a tunnel had		

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to meet correctly at the center of the mountain. Adjustments to the direction of the tunnel also had to be made whenever builders encountered geological problems or when it deviated from its set path. They constantly checked the tunnel's advancing direction, for example, by looking back at the light that penetrated through the tunnel mouth, and made corrections whenever necessary. Large deviations could happen, and they could result in one end of the tunnel not being usable. An inscription written on the side of a 428-meter tunnel, built by the Romans as part of the Saldae aqueduct system in modem-day Algeria, describes how the two teams of builders missed each other in the mountain and how the later construction of a lateral link between both corridors corrected the initial error.

The Romans dug tunnels for their roads using the counter-excavation method, whenever they encountered obstacles such as hills or mountains that were too high for roads to pass over. An example is the 37-meter-long, 6-meter-high, Furlo Pass Tunnel built in Italy in 69-79 CE. Remarkably, a modem road still uses this tunnel today. Tunnels were also built for mineral extraction. Miners would locate a mineral vein and then pursue it with shafts and tunnels underground. Traces of such tunnels used to mine gold can still be found at the Dolaucothi mines in Wales. When the sole purpose of a tunnel was mineral extraction, construction required less planning, as the tunnel route was determined by the mineral vein.

Roman tunnel projects were carefully planned and carried out. The length of time it took to construct a tunnel depended on the method being used and the type of rock being excavated. The qanat construction method was usually faster than the counter-excavation method as it was more straightforward. This was because the mountain could be excavated not only from the tunnel mouths but also from shafts. The type of rock could also influence construction times. When the rock was hard, the Romans employed a technique called fire quenching which consisted of heating the rock with fire, and then suddenly cooling it with cold water so that it would crack. Progress through hard rock could be very slow, and it was not uncommon for tunnels to take years, if not decades, to be built. Construction marks left on a Roman tunnel in Bologna show that the rate of advance through solid rock was 30 centimeters per day. In contrast, the rate of advance of the Claudius tunnel can be calculated at 1.4 meters per day. Most tunnels had inscriptions showing the names of patrons who ordered construction and sometimes the name of the architect. For example, the 1.4-kilometer Cevlik tunnel in Turkey, built to divert the floodwater threatening the harbor of the ancient city of Seleuceia Pieria, had inscriptions on the entrance, still visible today, that also indicate that the tunnel was started in 69 CE and was completed in 81 CE.

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A **(Question 1-4)**

Do the following statements agree with the information given in Reading Passage 1?

For the questions 1 - 4 on your answer sheet, write

TRUE. if the statement agrees with the information

FALSE. if the statement contradicts the information

NOT GIVEN If there is no information on this

1. The counter-excavation method completely replaced the qanat method in the 6th century BCE.
2. Only experienced builders were employed to construct a tunnel using the counter-excavation method.
3. The information about a problem that occurred during the construction of the Saldae aqueduct system was found in an ancient book.
4. The mistake made by the builders of the Saldae aqueduct system was that the two parts of the tunnel failed to meet

B **(Questions 5-7)**

Answer the questions below. Write **NO MORE THAN TWO WORDS** from the passage in each gap.

5. What type of mineral were the Dolaucothi mines in Wales built to extract? _____
6. In addition to the patron, whose name might be carved onto a tunnel? _____
7. What part of Seleuceia Pieria was the Cevlik tunnel built to protect? _____

Reading Passage 2: Read the following passage and answer the following questions

Attitudes towards Artificial Intelligence

A Artificial intelligence (AI) can already predict the future. Police forces are using it to map when and where crime is likely to occur. Doctors can use it to predict when a patient is most likely to have a heart attack or stroke. Researchers are even trying to give AI imagination so it can plan for unexpected consequences.

Many decisions in our lives require a good forecast, and AI is almost always better at forecasting than we are. Yet for all these technological advances, we still seem to deeply lack confidence in AI predictions. Recent cases show that people don't like relying on AI and prefer to trust human experts, even if these experts are wrong.

If we want AI to really benefit people, we need to find a way to get people to trust it. To do that, we need to understand why people are so reluctant to trust AI in the first place.

B Take the case of Watson for Oncology, one of technology giant IBM's supercomputer programs. Their attempt to promote this program to cancer doctors was a PR disaster. The AI promised to deliver top-quality recommendations on the treatment of 12 cancers that accounted for 80% of the world's cases. But when doctors first interacted with Watson, they found themselves in a rather difficult situation. On the one hand, if Watson provided guidance about a treatment that coincided with their own opinions, physicians did not see much point in Watson's recommendations. The supercomputer was simply telling them what they already knew, and these recommendations did not change the actual treatment.

On the other hand, if Watson generated a recommendation that contradicted the experts' opinion, doctors would typically conclude that Watson wasn't competent. And the machine wouldn't be able to explain why its treatment was plausible because its machine-learning algorithms were simply too complex to be fully understood by humans. Consequently, this has caused even more suspicion and

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disbelief, leading many doctors to ignore the seemingly outlandish AI recommendations and stick to their own expertise.

C This is just one example of people's lack of confidence in AI and their reluctance to accept what AI has to offer. Trust in other people is often based on our understanding of how others think and having experience of their reliability. This helps create a psychological feeling of safety. AI, on the other hand, is still fairly new and unfamiliar to most people. Even if it can be technically explained (and that's not always the case), AI's decision-making process is usually too difficult for most people to comprehend. And interacting with something we don't understand can cause anxiety and give us a sense that we're losing control.
Many people are also simply not familiar with many instances of AI actually working, because it often happens in the background. Instead, they are acutely aware of instances where AI goes wrong. Embarrassing AI failures receive a disproportionate amount of media attention, emphasising the message that we cannot rely on technology. Machine learning is not foolproof, in part because the humans who design it aren't.

D Feelings about AI run deep. In a recent experiment, people from a range of backgrounds were given various sci-fi films about AI to watch and then asked questions about automation in everyday life. It was found that, regardless of whether the film they watched depicted AI in a positive or negative light, simply watching a cinematic vision of our technological future polarised the participants' attitudes. Optimists became more extreme in their enthusiasm for AI and sceptics became even more guarded.
This suggests people use relevant evidence about AI in a biased manner to support their existing attitudes, a deep-rooted human tendency known as "confirmation bias". As AI is represented more and more in media and entertainment, it could lead to a society split between those who benefit from AI and those who reject it. More pertinently, refusing to accept the advantages offered by AI could place a large group of people at a serious disadvantage

E Fortunately, we already have some ideas about how to improve trust in AI. Simply having previous experience with AI can significantly improve people's opinions about the technology, as was found in the study mentioned above. Evidence also suggests the more you use other technologies such as the internet, the more you trust them.
Another solution may be to reveal more about the algorithms which AI uses and the purposes they serve. Several high-profile social media companies and online marketplaces already release transparency reports about government requests and surveillance disclosures. A similar practice for AI could help people have a better understanding of the way algorithmic decisions are made.

F Research suggests that allowing people some control over AI decision-making could also improve trust and enable AI to learn from human experience. For example, one study showed that when people were allowed the freedom to slightly modify an algorithm, they felt more satisfied with its decisions, more likely to believe it was superior and more likely to use it in the future
We don't need to understand the intricate inner workings of AI systems, but if people are given a degree of responsibility for how they are implemented, they will be more willing to accept AI into their lives.

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	C	**(Questions 8-13)** **Choose the correct number, i–viii, of heading for sections A–F from the list of headings below.** List of Headings i. An increasing divergence of attitudes towards Al ii. Reasons why we have more faith in human judgement than in Al iii. The superiority of Al projections over those made by humans iv. he process by which Al can help us make good decisions v. The advantages of involving users in Al processes vi. Widespread distrust of an Al innovation vii. Encouraging openness about how Al functions viii. A surprisingly successful Al application Section A (8) _____ Section B (9) _____ Section C (10) _____ Section D (11) _____ Section E (12) _____ Section F (13) _____	
	D	**(Questions 14-15)** **Choose the correct answer.** 14. What is the writer doing in Section A? i. providing a solution to a concern ii. justifying an opinion about an issue iii. highlighting the existence of a problem iv. explaining the reasons for a phenomenon 15. According to Section C, why might some people be reluctant to accept Al? i. They are afraid it will replace humans in decision-making jobs. ii. Its complexity makes them feel that they are at a disadvantage. iii. They would rather wait for the technology to be tested over a period of time. iv. Misunderstandings about how it works make it seem more challenging than it is.	
2		**Grammar**	**0.5x06 = 3 Marks**	**CO2**
	A	**Read the sentences and identify if these sentences are Simple, Complex, Compound, or Compound-complex according to their structure:** (i)Even though social media provides a platform for marginalized voices, it simultaneously amplifies hate speech, and paradox to challenge digital ethics. (ii) Despite the promise of global connection, social media has created virtual Despite the promise of global connection, social media has created virtual stronger boundaries than the physical ones. (iii) Because of depending on algorithmic visibility to maintain relevance, influencers constantly adjust their content. (iv) The documentary exposed the manipulation of user data shocking the audiences worldwide, but governments responded with regulations only after public outrage intensified. (v) Some researchers argue that artificial intelligence will eventually predict human emotions, yet others warn that such precision could endanger personal freedom if misused. (vi) If users are not careful about privacy settings, their personal data can be accessed by strangers and closed ones.	

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3.		**Writing**	**1x 7 = 07 Marks**	**CO3**
	A	Suppose you are the Registrar of a private university. Write a **Memo/Memorandum** to call a meeting of all the heads of departments to discuss the reasons and solutions to the massive students' drop-out in recent semesters. **Write at least 80-100 words.**		

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