



UNIVERSITY OF PERADENIYA
CENTRE FOR DISTANCE AND CONTINUING EDUCATION



ශාස්ත්‍රවේදී උපාධි (බාහිර - නව නිර්දේශය) පරීක්ෂණය 100 මට්ටම - 2024
கலைத்தேர்வுப் பரீட்சை (வெளிவாரி - புதிய பாடத்திட்டம்) 300 வது தேர்ச்சி மட்டம் - ஆகஸ்ட் - 2024
Bachelor of Arts (External - New Syllabus) Examination 100 Level - August 2024

(ENGE 101 – Writing and Comprehension)

කාලය පැය (03) තුනයි.
මුණු (03) මණිත්තියාලங்கள்.
Duration: Three (03) Hours

නොපැහැදිලි අත් අකුරුවලට ලකුණු කපනු ලැබේ.
எழுத்து தெளிவில்லாதவிடத்து புள்ளிகள் குறைக்கப்படும்.
Marks will be deducted for illegible handwriting.

මෙම ප්‍රශ්න පත්‍රයේ අඩංගු ප්‍රශ්න සංඛ්‍යාව 3 කි.
இந்த வினாப்பத்திரத்தில் 3 வினாக்கள் உள்ளன.
There are 3 questions in the question paper.

ANSWER ALL THE QUESTIONS.

1) Write an essay of at least 250 words on ONE of the following topics.

- The rising drug crisis among youth in Sri Lanka has become a serious concern for the nation's future. In your opinion, what key factors have contributed to this issue, and what long-term strategies can be implemented to address it effectively?
- Discuss your position on introducing critical thinking as a separate subject for school education in Sri Lanka. In your essay, present arguments both for and against this topic.
- Unemployment remains one of the most pressing global challenges today. Write an essay analyzing its key causes and impacts as well as the steps that can be taken to overcome it.
- The growing influence of Artificial Intelligence (AI) in today's world is undeniable. Write an essay discussing the advantages and disadvantages of AI in our technologically advanced age. Include your personal experience with AI to illustrate its benefits and potential drawbacks.
- Discuss the importance of individuality in light of the quote, "Be yourself; everyone else is already taken." Reflect on the value of authenticity and share a personal experience that illustrates why being true to oneself matters.

2) Write a precis summarizing the extract given below. Use your own words as far as possible. Simply reproducing sentences from the original text will not earn you full marks.

a. Provide the passage with a title. Mention it at the beginning.

b. Write the precis in approximately 170 words.

c. State the number of words you have used at the end of the precis.

The term human-wildlife conflict attempts to explain the complex relationship between humans and animal species. Globally, this is an issue that is steadily increasing due to human population expansion leading to fewer habitat options for many animal species, which consequently leads to more conflict over space and resources. This hugely affects the livelihoods of humans, with potential impacts including crop damage, property destruction, physical injury to people, and livestock loss which may contribute to more severe food poverty in certain areas. However, this undeniably has a significant impact on the wildlife involved. This is because many people respond negatively and retaliate with violence to prevent animals from causing further damage, meaning that species are targeted and killed. This is significant because of the conservation crisis that we are currently experiencing, meaning that many of the animals attacked are already endangered and in danger due to other anthropogenic reasons.

An example of this issue is the human-elephant conflict that is currently occurring across the globe. This is becoming a more severe problem as elephants are sizable individuals that are being forced into smaller areas due to land loss and lack of resources, meaning that they often resort to crops that are planted by farmers. Elephants, as previously mentioned, are a large species, meaning they require a great amount of food in a day, and they tend to cause much damage to the land through uprooting. Land users often refer to this as 'crop-raiding', and this evidently causes anger, and also fear, among farmers who frequently lose their crops. Not only do they lose their crops, but they can also become injured, or even killed. Elephants are a severely endangered species, and this conflict with people means that many more are killed per year due to retaliation from humans. According to the World Wildlife Fund, 50-120 elephants are shot and killed per year in Kenya, and many others are poisoned in Indonesia when raiding palm oil plantations.

New mitigation strategies must be put in place to decrease the effects of this human-wildlife conflict while simultaneously protecting the threatened species involved. A key example of a mitigation scheme for this human-elephant conflict is known as the chili method. Elephants have an acute sense of smell, meaning that they can be sensitive to certain unpleasant smells within the environment, such as hot chilies that can be used as a deterrent when placed around borders. This acts as an irritant to their sensitive respiratory tract area, meaning that the elephants are repelled from important cropland, causing them to move onto other areas, in the interest of minimizing damage to agricultural land. This method can be used in a variety of different forms, with the most frequently used methods being bricks (dung and chili mixture which is burnt to create smoke), sprays, fencing, and growing chili around crops. These all have different success rates due to varying costs and benefits for each method.

3) Read the following text and answer the questions given below.

Open your eyes in sea water and it is difficult to see much more than a murky, bleary green colour. Sounds, too, are garbled and difficult to comprehend. Without specialized equipment humans would be lost in these deep sea habitats, so how do fish make it seem so easy? Much of this is due to a biological phenomenon known as electroreception – the ability to perceive and act upon electrical stimuli as part of the overall senses. This ability is only found in aquatic or amphibious species because water is an efficient conductor of electricity.

Electroreception comes in two variants. While all animals (including humans) generate electric signals, because they are emitted by the nervous system, some animals have the ability – known as passive electroreception – to receive and decode electric signals generated by other animals in order to sense their location.

Other creatures can go further still, however. Animals with active electroreception possess bodily organs that generate special electric signals on cue. These can be used for mating signals and territorial displays as well as locating objects in the water. Active electroreceptors can differentiate between the various resistances that their electrical currents encounter. This can help them identify whether another creature is prey, predator or

something that is best left alone. Active electroreception has a range of about one body length – usually just enough to give its host time to get out of the way or go in for the kill.

One fascinating use of active electroreception – known as the Jamming Avoidance Response mechanism – has been observed between members of some species known as the weakly electric fish. When two such electric fish meet in the ocean using the same frequency, each fish will then shift the frequency of its discharge so that they are transmitting on different frequencies. Doing so prevents their electroreception faculties from becoming jammed. Long before citizens' band radio users first had to yell "Get off my frequency!" at hapless novices cluttering the air waves, at least one species had found a way to peacefully and quickly resolve this type of dispute.

- a. In your own words, explain what electroreception is and why it is important for aquatic animals.
- b. What is passive electroreception, and how does it help animals in their environment?
- c. How does active electroreception differ from passive electroreception? Include examples of its uses.
- d. Explain how active electroreceptors help animals identify prey, predators, or neutral creatures.
- e. Describe the Jamming Avoidance Response observed in weakly electric fish. Why is this mechanism important?
- f. Imagine a modern situation in human technology or daily life where avoiding interference or "jamming" is important. Explain briefly.
- g. In your opinion, what does the study of electroreception teach us about the adaptability and intelligence of animals? You may refer to other animals or natural phenomena you know of.
