

[This question paper contains 12 printed pages.]

Your Roll No.....

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Unique Paper Code : 62031205

Name of the Paper : English Language Through
Literature

Name of the Course : B.A. Programme (LOCF)

Semester : II

Duration : 3 Hours

Maximum Marks : 75

Instructions for Candidates

1. Write your Roll No. on the top immediately on receipt of this question paper.
2. The paper contains 3 unseen passages and questions based on them.
3. The questions are in two parts, A and B, both of which are compulsory. Students will attempt any **THREE** of the questions from each part.
4. Answers for Part A to be written in 250-300 words and for Part B in 350-500 words.

P.T.O.

Passage 1 (652 words)

It seems like Roald Dahl may have been onto something after all: if you hurt a plant, it screams.

Well, sort of. Not in the same way you or I might scream. Rather, they emit popping or clicking noises in ultrasonic frequencies outside the range of human hearing that increase when the plant becomes stressed. This, according to scientists, could be one of the ways in which plants communicate their distress to the world around them.

“Even in a quiet field, there are actually sounds that we don’t hear, and those sounds carry information. There are animals that can hear these sounds, so there is the possibility that a lot of acoustic interaction is occurring,” explains evolutionary biologist Lilach Hadany of Tel Aviv University in Israel.

“Plants interact with insects and other animals all the time, and many of these organisms use sound for communication, so it would be very suboptimal for plants to not use sound at all.” Plants under stress aren’t as passive as you might think. They undergo some pretty dramatic changes, one of the most detectable of which (to us humans, at least) is the

release of some pretty powerful aromas. They can also alter their color and shape.

These changes can signal danger to other plants nearby, which in response boost their own defenses; or attract animals to deal with the pests that may be harming the plant.

However, whether plants emit other kinds of signals - such as sounds - has not been fully explored. A few years ago, Hadany and her colleagues found that plants can detect sound. The logical next question to ask was whether they can produce it, too.

To find out, they recorded tomato and tobacco plants in a number of conditions. First, they recorded unstressed plants, to get a baseline. Then they recorded plants that were dehydrated, and plants that had had their stems cut. These recordings took place first in a soundproofed acoustic chamber, then in a normal greenhouse environment.

Then, they trained a machine learning algorithm to differentiate between the sound produced by unstressed plants, cut plants, and dehydrated plants.

The sounds plants emit are like popping or clicking noises in a frequency far too high-pitched for humans to make out, detectable within a radius of over a

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meter (3.3 feet). Unstressed plants don't make much noise at all; they just hang out, quietly doing their plant thing.

By contrast, stressed plants are much noisier, emitting an average up to around 40 clicks per hour depending on the species. And plants deprived of water have a noticeable sound profile. They start clicking more before they show visible signs of dehydrating, escalating as the plant grows more parched, before subsiding as the plant withers away.

The algorithm was able to distinguish between these sounds, as well as the species of plant that emitted them. And it's not just tomato and tobacco plants. The team tested a variety of plants, and found that sound production appears to be a pretty common plant activity. Wheat, corn, grape, cactus, and henbit were all recorded making noise.

But there are still a few unknowns. For example, it's not clear how the sounds are being produced. In previous research, dehydrated plants have been found to experience cavitation, a process whereby air bubbles in the stem form, expand and collapse. This, in human knuckle-cracking, produces an audible pop; something similar could be going on with plants. We don't know yet if other distress conditions can induce

sound, either. Pathogens, attack, UV exposure, temperature extremes, and other adverse conditions could also induce the plants to start popping away like bubble wrap.

It's also not clear whether sound production is an adaptive development in plants, or if it is just something that happens. The team showed, however, that an algorithm can learn to identify and distinguish between plant sounds. It's certainly possible that other organisms could have done the same.

Passage 2

It you can't be a pine on the top of the hill,

Be a scrub in the valley - but be

The best little scrub by the side of the rill;

Be a bush, if you can't be a tree.

If you can't be a bush, be a bit of the grass,

And some highway happier make;

If you can't be a muskie, then just be a bass- But the liveliest bass in the lake!

We can't all be captains, we've got to be crew,

There's something for all of us here.

There's big work to do and there's lesser to do And
the task we must do is the near.

If you can't be a highway, then just be a trail,

If you can't be the sun, be a star;

It isn't by size that you win or you fail- Be the best
of whatever you are!

Passage 3 (648 words)

(The lights begin to come on a long table. The table
contains equipment for teaching the blind.)

ANNIE : What's this child like?

ANAGNOS : Like?

ANNIE : Well, bright or dull, to start off.

ANAGNOS : No one knows. And if she is dull, you
have no patience with this?

ANNIE : Oh, in grown-ups you have to. I mean in
children it just seems a little precocious... Premature.
So I hope at least she's a bright one.

ANAGNOS : Deaf, blind, mute – who knows? She is
like a little safe, locked, that no one can open. Perhaps
there is a treasure inside.

ANNIE : Maybe it's empty, too?

ANAGNOS : Possible. I should warn you, she is much given to tantrums.

ANNIE : Means something is inside.

(A group of girls, 8 year olds to 17 year olds; as they walk one sees they are blind. Anagnos shepherds them in with a hand.)

A CHILD : Annie?

ANNIE: (Her voice cheerful.) Here, Beatrice.

(As soon as they locate her voice they throng joyfully to her.)

CHILDREN : There's a present. We brought you a going-away present, Annie!

ANNIE : Oh, now you shouldn't have.

CHILDREN : We did, we did, where's the present?

SMALLEST CHILD (Mournfully): Don't go, Annie, away.

CHILDREN : Alice has it. Alice! Where's Alice? Here I am! Where? Here!

(An arm is aloft out of the group, waving a present; ANNIE reaches for it.)

ANNIE : I have it. I have it, everybody, should I open it?

(A settling of silence while Annie unwraps it. The present is a pair of smoked glasses, and she stands still.)

CHILDREN : Is it open, Annie?

ANNIE : It's open.

CHILDREN : It's for your eyes, Annie. Put them on, Annie! 'Cause Mrs. Hopkins said your eyes hurt since the operation. And she said you're going where the sun is fierce.

ANNIE. I'm putting them on now.

SMALLEST CHILD (Mournfully): Don't go, Annie, where the sun is fierce.

CHILDREN : Do they fit all right?

ANNIE : Oh, they fit just fine.

CHILDREN : Did you put them on? Are they pretty, Annie?

ANNIE : Oh, my eyes feel hundreds of percent better already, and pretty, why, do you know how I look in them ? Splendiloquent. Like a race horse!

CHILDREN (Delighted) : There's another present! Beatrice! We have a present for Helen, too! Give it to her, Beatrice. Here, Annie!

(This present is an elegant doll, with movable eyelids and a momma sound.)

It's for Helen. And we took up a collection to buy it. And Laura dressed it.

ANNIE: It's beautiful!

CHILDREN : So, don't forget. You be sure to give it to Helen from us, Annie!

ANNIE : I promise it will be the first thing I give her. If I don't keep it for myself, that is, you know I can't be trusted with dolls!

SMALLEST CHILD : Don't go, Annie.

ANNIE (Her arm around her.): Sarah, dear, I don't want to go.

SMALLEST CHILD : Then why are you going?

ANNIE : Because I'm a big girl now, and big girls have to earn a living. It's the only way I can. But if you don't smile for me first, what I'll just have to do is- (She pauses.)

SMALLEST CHILD : What?

ANNIE : Put you in my suitcase, Instead of this doll. And take you to Helen in Alabama!

(This strikes the children as very funny, and they begin to laugh and tease the smallest child, who after a moment does smile for Annie.)

ANAGNOS : Come, children. We must get the trunk into the carriage and Annie into her train, or no one will go to Alabama. Come, come.

(He shepherds them out and Annie is left alone on her knees with the doll in her lap. She reaches for her suitcase.)

Part A

Answer any 3 of the following : (3×10=30)

Questions 1 and 2 are based on passage 1.

Question 3 is based on passage 2.

Questions 4 and 5 are based on passage 3.

1. How do plants communicate their pain to the world around them? Answer in 250-300 words. (10)
2. How did the scientists learn that plants can produce and also detect sounds? Answer in 250-300 words. (10)

3. Why can't we all be captains? What is the poet's advice in the poem? Answer in 250-300 words. (10)
4. Based on the extract, comment on the nature of the relationship between Annie and the children in 250-300 words. (10)
5. List the reason(s) behind Annie's departure from the school? Bring out the significance of the 'present' given by the children to her in 250-300 words. (10)

Part B

Answer any 3 of the following : (3×15=45)

Questions 6 and 7 are based on passage 1.

Questions 8 and 9 are based on passage 2.

Question 10 is based on passage 3.

6. Write notes on Passage 1 using headings and sub-headings as well as recognizable abbreviations wherever necessary. (15)
7. Imagine you are a dehydrated tree having a conversation with your squirrel friend. Write 10 turns of dialogues between the tree and the squirrel. (15)

8. Write a personal essay on how you faced some difficulty with courage and hope in 350-500 words. (15)
9. Paraphrase the poem in your own words in about 350-500 words. (15)
10. Imagine yourself as Annie who has reached Alabama. Write a letter to Anagnos about your experiences while teaching Helen in about 350-500 words. (15)