

Evaluation 2

COM 101

March 2022

Marks - 25

A1)

Can the networking of ant colonies be a metaphor for our brain?

One of the exciting analogies that relate to them is that both consist of subordinate subsystems, that are ants and neurons, that, by chemical interactions, coordinate together. Ants have some magical way of storing past locations and routes on which they walked earlier, thereby creating an extensive navigation network that helps their colony mobilize better. Like the brain, Past events can transform ants' behavior. One of the best examples is of the red-wood ant colony. Years pass by, but a red-wood ant colony always remembers its trail system to the same tree for feeding on exertions of aphids. Their nests are situated at the same place and colonized by generations. An older ant goes out during the spring season with a young one along the older ant's habitual trail, and as the older ant dies, the younger one adopts that trail as its own. Thus the colony remembers the previous year's trails. They have a unique way of shipping food items to their nests, requiring individual memory of ants'. Each ant separates from the trail and searches for food. After finding a seed, it returns to the nest using the old trail, where it drops off its food. It leaves the trail around the same place to search again on its next round. Each day, the colony changes its operating area, expanding and contracting. It seems like a wave whose amplitude increases as the day progresses. Slowly the waveform recedes as the ants near the nest complete their searches. By disturbing trails, we learned that the activity of one group depends on the other, where intercommunication results from the rate of brief encounters between members of different groups. After a few days of continuous disturbances, the colonies behaved as before since ants had switched their positions and tasks. Thus the colony did store something. We also observed that the older, larger colonies had more stable behavior than younger ones. Older colonies were acting more wisely than younger ones. So, memory arises from changes in how ants or neurons connect and stimulate each other. Thus colony's mature behavior is an outcome of the meetup rates of ants. Hence colonies store a past disturbance as shifted locations, leading to new maps of interaction, which are reinforced overnight. In contrast, the ant colony is inactive, just as our memories are consolidated during sleep. So our memories are like an ant colony's: no particular neuron remembers anything, although your brain does.(419 words)

A2)

Subject: Exhibition and series of events and a surprise event by Nature club

Dear all,

This earth day (22 April 2022) nature club plans to organize an exhibition and a surprise event at the celebrated grounds of our college. So everyone, book this day in your calendar for a series of very engaging and fun events.

The program will start with a trip to the Jahapana forest around 9 am. College Staff will be accompanying us. At 11, we will be planting trees in and around the college. During 12-2 pm, we will have an art and poster competition organized by the Rangela Club of our college. The top three best poster paintings will receive cash prizes.

The exhibition scheduled from 4 pm onwards will be featuring sustainable technical projects whose focus will be on saving planet's resources and using them more efficiently. All our college scholars and professors are requested to participate in the exhibition.

We will also have a seminar by Dr.Rohit Chopra, the receiver of the Padma Shri Award for inventing a sustainable engine model. He will conduct a talk on "Technology and Environment". 6-8 pm time slot has been reserved for surprise events. And let me guarantee you that they'll be fun. Do not forget to tune yourselves in for them.

We want to invite you all to this series of exciting events, where we will become more socially aware and immerse ourselves in some fun activities to make people around us proactive nature savers. Please find the attached brochure for complete knowledge.

All those interested in participating in the exhibition and painting competition are requested to register themselves with us latest by 26th of March 2022. Check the attachments for the registration form.

Thanking you

Regards

Animesh Pareek

Secretary of Nature Club

Indraprastha Institute of Information Technology, New Delhi

A3)

Fantasy of arguments

Frequent fluctuations in argument war have added another fact to our factual book: "Forging persuasions in a war of dynamic arguments is not that easy task". In this war where attacking and defending occur, most bombs get themselves heard, but they are not easily sensed. In our classes, we had read and learned, "Debates and discussions when successfully conducted lead to desired results". But I ask myself and my readers, have we ever applied this to our life? Many of us find ourselves ending up in a fight or simply facing ignorance in our everyday quarrels. Notably, in only some instances, resolutions are determined at the end of disputes of arguments. This dynamic universe will always try to establish equilibrium in everything it has to provide. But arguments and quarrels rarely end on an equilibrium note. Now, why does this happen? What causes it? Is it our communicable inability which is to be blamed, or simply the topic should be blamed? This game of blames will always lead us to a big quarrel. War. It will never lead to a solution. It might happen that someone might even just blame this cosmos for the argument!!

Somehow, we ourselves should be blamed for the non-conclusive warfare of words. I and many have observed that while presenting our facts, we shift our focus from finding conclusions to proving our point. The ongoing discussion or meeting turns into a competition for us. Where we just want to win. Thus, we never evaluate others' viewpoints and facts they present to atomic levels. Instead, we try to take out flaws in them. As a result, this discussion somewhat reduces to nothing but a contest, where our highest priority is not to find a solution but to win, which might later even become a brutal, aggressive armed combat.

So, what's the solution? It's simple, build a habit of listening more and speaking less. This will make you think before you speak. And also, don't forget to put your "ego" aside before entering any discussion or debates. By doing so, you will understand the viewpoints of others, thereby making you get one step closer to the remedy of a dilemma or problem. When both sides start getting to know and comprehend others' way of thinking, then take my word, the best decision will be made. Because when two brains work together, they work as a team, and teamwork always results in the generation of output which is more acceptable, reflexive and logical.

But let me warn you that it is not as practically simple as it seems. Otherwise, this world would not have had any wars and maybe would have witnessed someday some totally impossible things like a dog working in the office or simply this fantasy of arguments would never find its place in a college assignment. Restoring back to reality, it is true that arguments generally lead to counter-arguments and hardly to persuasion. And an ultimate cause of this statement is holes in our communication skills which will keep on executing this philosophical fantasy of arguments repeatedly because not everyone has the guts to accept their mistakes.(525 words)