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Achievements

Dr. Dhananajay Kr. Tripathi has obtained Phd degree (Science) in physics from Kalyani University in the year 2012

Dr. Maitreyi Ray(Kanjilal) of Dept. of ECE has published book titled "Analog Electronics and Circuits" from the publisher JB Book and Learning, Kolkata.

Mr. Sajal Saha of Dept. of CA has published book titled "GIS and Remote Sensing: Applications in Flood Damage assessment" from the publisher Lap Lambert Academic Publishing, Germany.

Mr. Subhram Das (Dept. of CSE) and Mr. Anilsh Dey (Dept. of ECE) have presented papers in the international conference CONIAPS XV at Thanyaburi, Thailand on 09-13 December 2012.

Ms. Sandhya Pattanayak(Dept. of ECE) has presented paper in the IEEE international conference WiCOM 2012 at Shanghai, China.

Dr. Sumit Nandi (Dept. of Chemistry) presented two papers in Poland and Bulgaria respectively in the 2012.

Dr. Sumit Nandi (Dept. of Chemistry) presented invited talk on "Mathematics and enzyme kinetics: A key relation for understanding real life phenomena" at Budapest university of Technology, Hungary on June 22, 2012



EDITORIAL

We regret we are little late. But our venture didn't die. Some college paraphernalias detained us a bit. With this edition of our college mag we have brought a good news. Our college is going to be an autonomous institute very soon. Every one of us, every bit of us is charged up with vigour and gusto. With the benediction of God and the earnest co-operation and encouragement of all the well-wishers, let a new, clear dawn be ushered in the history of NiT.

This very edition of ours carries a mixed perfume of different essence of life. Just as dawn with its russet mantle and gentle dewdrops helps orchids and oleanders, daisies and dandelions to bloom and grow in luxuriant profusion, so also may this venture lead to the intellectual and spiritual awakening of the minds of the tender autonomous Narulities. Let's be zealous in our quest for excellence. Let's:

Ring in the valiant man and free,
The larger heart, the kindlier hand;
Ring out the darkness of the land,
Ring in the Christ that is to be.

--- Alfred Tennyson



The Victorian Age was an age of peace, prosperity and progress. A magnificent Queen who reigned in that period could easily inspire people with love, adoration and patriotism. British Empire reached the zenith of its prosperity during her regime. But the bright side of this age entails many evils. The Victorian Age was an age of rapid flux and baffling complexity. It was a solemn age, yet it produced more humorous writers than any other period-advanced in intellect yet immature in emotion. It was during that time, in 1812, a pioneer-writer of lower middle class society, Charles Dickens, was born in poverty. His “Sketches by Boz” and the sporting characters of his “Pickwick Papers” made young Dickens a famed caricaturist of English manners.

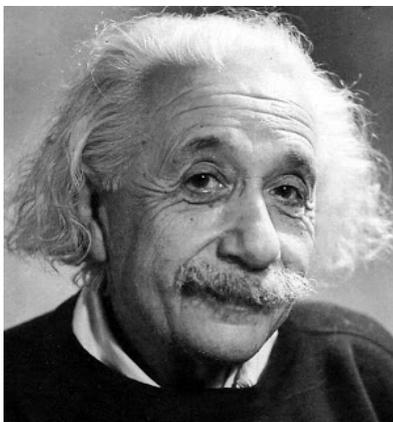
Dickens lived in the era of Industrial Revolution which ushered in a period of unprecedented difficulties for the common man. He was a novelist with a purpose to focus attention on the various evils of his time. He wanted to make evil a vehicle of justice and morality. He never lost his sympathy for the poor and the ill-treated. The poor then encountered untold sufferings. There were frequent strikes by factory workers who were suppressed by force. Dickens himself could relate to the pathos of the poor being once the victim of such atrocities in his childhood, where he had to work in a work house to clear his father’s debts. From his two novels, “David Copperfield” and “Oliver Twist”, we get a vivid picture of the evils of the work houses. His other famous literary work, “Great Expectations”, depicts how the prisoners were brutally treated like animals. The law for the prisoners was quite severe and cruel. Conditions of schools reflected the general harshness of the age. “Spare the rod and spoil the child”-seemed to be the motto of the age.

Dickens’ novels reflect hypocrisy, ignorance and tyranny on the poor people. He was deeply influenced by the prevailing conditions of the life in London. He tried to sublimate all this ugliness into a source of joy. He found far-reaching repercussions due to progress in the sphere of science and industry leading to the hardships for the poor. Dickens was a satirist who exposed the follies of his age, a reformer and a humanitarian. He was exceptionally gifted with creative imagination due to which his characters are immortal personages. Humour and humanity are two other outstanding characteristics of Dickens as a novelist.

Dickens once again had come alive in the hearts of the people when some of his novels were made into television series and movies. His novels had achieved importance and fame not only in England but around the globe. Indeed, Dickens was not only of his country alone but of the world. This can be said when one comes to know how his 200th birth anniversary was celebrated on 7th February, 2012, across the world.

Friday, September 23, 2011- the day that astonished the entire world, the day that turned the world of physics topsy turvy and the day when it was declared that Sir Albert Einstein’s venerable Law of Relativity was not correct.

Sir Einstein in his famous Law of Relativity had found that nothing can travel faster than light. Since 1905 for about hundred years numerous laws and theories were proposed and established based on Sir Einstein’s theory, until September 2011 the European Organisation for Nuclear Research (CERN) declared that relativity was



incorrect, because a particle named neutrino was found to have a speed faster than the speed of light.

The Large Hadron Collider (LHC), the world's largest and highest energy particle accelerator, built by CERN from 1998 to 2008 was developed with the aim of allowing physics to test the predictions of different theories of particle physics and high energy physics. The LHC was expected to address some of the most fundamental questions of physics, advancing human understanding of the deepest laws of nature.

In 2011 an experiment was conducted at CERN named OPERA (Oscillation Project with Emulsion-tRacking Apparatus). The experiment was designed to perform the most straight forward test of the phenomenon of neutrino oscillations. In this experiment a neutrino beam was fired in the particle accelerator

and neutrino was found to travel 60 nanoseconds faster than the speed of light. Scientists had revealed neutrino's speed was 20 parts per million above the speed of light—a direct contradiction to the law of relativity. This led to a hue and cry all over the world. But when the experiment was again reconducted to make sure of the revealed fact, scientists found it was not easy to prove Sir Einstein wrong. It was published in a science journal that a faulty connection between a GPS (global Positioning System) and computer likely caused the anomaly leaving Law of Relativity intact.

This article is written with the aim to acknowledge people who are still unaware of the fact that relativity is right; neutrinos are not so fast that it could beat Sir Albert Einstein.

Effect of literature in our society

SHEIKH DANISH CSE 18

Literature has a great effect on modern society. It is a bit of a cliché but it does hold some truth—'A literary man is as much a product of his society as his art is product of his own reaction to life'. People gain knowledge either by their experience or by learning from books written by great souls or other literary source of information. The kind of literature we read is the kind of literature we get, in fact literature expresses us and it expresses our character, thoughts and sentiments. It reflects the quality of mind, since people of different age groups have different minds and different perspectives. A society is much a reflection of their people. Literate people are considered gentlemen and have different life style all together, and they are more descent, well mannered, cultural and have a good reputation in a society. In a way literature has changed the life style of a society and it has been a part of our life since centuries.

Literature is the revelation of beauty, a beauty that never fades and with time becomes more glorious and more appreciated. Beauty of a work is appreciated by the hard work done by a writer, beauty is an emotion and in fact the little details are by far the most important expressions and expressions without any exception is always beautiful. It represents its quality, the perfection, the emotion and the inglorious truth behind the curtain of lies. Thus, it is a mere subjective experience. The great soul such as Shakespeare, has left behind him the most extraordinary art of literature and some of them undoubtedly are *Macbeth*, *Julius Caesar*, *Romeo and Juliet* and many others which are still read by most of the people and much loved,

and no surprise most of the schools around the world have introduced these books as a method of education of English language. When we read these books we come to know about various human characters; we learn how people betray each other for the sake of wealth and power, we learn to love respect and sacrifice, we learn to judge a good person from a bad and in fact look into ourselves and change ourselves, and when we feel we are secure that is the time we find out that we are the most vulnerable, in fact security is our biggest threat. There are lot more to learn, in fact there is never an end to this huge pile of knowledge with which we can be obsessed, but we can never ignore because somewhere in our life we feel that it is our need. From generation to generation the interest of people has changed and so does the literature. Since, different age groups have different points of interest, its own ways of thinking and interpreting, and since literature has always been the reflection of people's life; people like to read something related to their own life, they try to admit some facts, debate on few and learn something from someone else experiencing the same. Well some people are often inspired by the personality of some authors which dominate over other authors, the essence of literature lies on the approach of the writer towards the topic, which differs from individual to individual. The influence these author have upon us is unexplainable. In reality we are extremely inspired by these people.

People cannot ignore the historical aspect of literature. Englishmen dominated the world and history is correlated to it. The study of English language takes us into the fields of paper white, where we explore different civilization, culture, the history of English politics, learning and philosophy, religion etc. It is important that we know about our history and politics, we must know the national activity of that time not just for the sake of patriotism to our country but also to know about our existence, and of course all the political incidents that took place at that time. So, literature of any age reflects the national activity of that time along with the other aspects of the context. Literature is a part of our life, it enriches our life and also changes the meaning of our life.

জীবন

SUDIPTA CHATTERJEE EIE1

জীবন মানে একটা নিশ্চুপ নদীর মত বয়ে চলা ...কখনো ধীরে আবার কখনো দুর্বীর গতিতে ...কখনো সেই নদী থাকে জলমগ্ন আবার কখনো বা তার বক্ষদেশে এক ফোটা জলকনার ও স্থান থাকে না জীবন মানে একটা ধুধু মরুপ্রান্তরচলতে চলতে হটাখ তাক লাগানো মরিচিকার মততার কাছে যেতে চাইলেই উধাও হয়ে যায় জীবন মানে বরফে ঢাকা মেরুচারিদিক সাদাপ্রথম প্রথম তার সেই রূপ আনন্দ দেয় ...কিন্তু কিছু সময় কাটতে না কাটতেই একষেয়েমি চলে আসে ... জীবন মানে পাহাড়ের দুর্গম পথ দিয়ে হেটে চলাকখনো উচু কখনো নিচুসাবধানতা অবলম্বন না করলেই খাদে পরে যাওয়ার উপক্রম ... বড় জটিল এই জীবনকখনো সে দুহাত ভরে দেয়আবার কখন সে সেই দেয়া জিনিসই কেড়ে নেয়বোঝবার উপায় নেই .

Still none of us bother????

ANWASHA HALDER CSE 1B

Same is the road, same is the rail,
 A coin has still head or tail,
 We are still miser and introverts,
 Same is our trousers same are skirts,
 Still none of us bother????
 After So many odd wars in this years,
 Men drove away all their gears,
 Not caring a bit for their dears,
 Careless of death but full of zeal
 This is a dam big deal
 Still none of us bother????

Sixty five years of independence
 Same is the moon
 And same is sun
 Still no bother????
 Women are still lagging behind
 People with legs are still lame
 Men is eying his bubbly fame
 Then whats the bother???
 Peoples are killed people are slained
 While in yeaster years they are chained
 Killing the people or beating them to death
 So now what will be the bother?
 A change in scenario is the need of hour
 Every People may bloom like flowers
 Or other would pluck when they need
 Is this is the big deal
 Aim for good aim for hard
 Boldened like tiger and fierce like a pard
 Leave aside everything and go on the ill
 Being strong and witty is what I feel
 Is the biggest ever thing to bother?

There's a smiling face.
 And on her moon like face, are
 streams of black silk flowing down
 her rosy cheeks.
 Behind the cloud of dreams.
 A meeting.
 An exquisite moment.
 The still water of the lake.
 A bird chirruping on the tree.
 Blooming buds in the garden.
 Soft words off her beautiful lips.
 Behind the cloud of dreams.
 A yellowish afternoon.
 In the accent of the coolness of iron.
 A broken mirror; flying pieces of papers.
 Blurring of a bewitching sight.
 Tears shining like a pearl on her eyelids.
 Deep silence; noisy wind.
 Behind the cloud of dreams.



Life. A simple word engulfing, encompassing, describing all the complexities of this world. Life... According to the scientists, to be found nowhere, except the earth we live in, in the whole universe. Life... According to the ancient Egyptians, just a derogatory phase before being elevated to a higher level after the end of it (i.e. death). Life... According to Biologists, a mere outward expression

of accidental arrangements of base-pairs in DNA double-helical strand. Life... According to common living beings, time frame to eat food, sleep well, do work, and enjoy the surroundings.

Life is the ultimate meaning of one's being. Yet, there is so much unknown about this word "Life". So much mystery is associated with this word. Where did it come from? How did it originate? Why is it not found in any other planet in Universe? How life evolved to a complex



Why people talk about extra-terrestrial life? So many questions ignite fuel in one's inquisitive mind to know more about "Life".

This article is just a brief introduction on how life originated on earth. Though this space is infinitesimally small for discussing such an eternal and vast topic, this article gives a brief overview of the process of the primitive nature of life on earth,

and discusses about some possible theories explaining the source of life on earth.

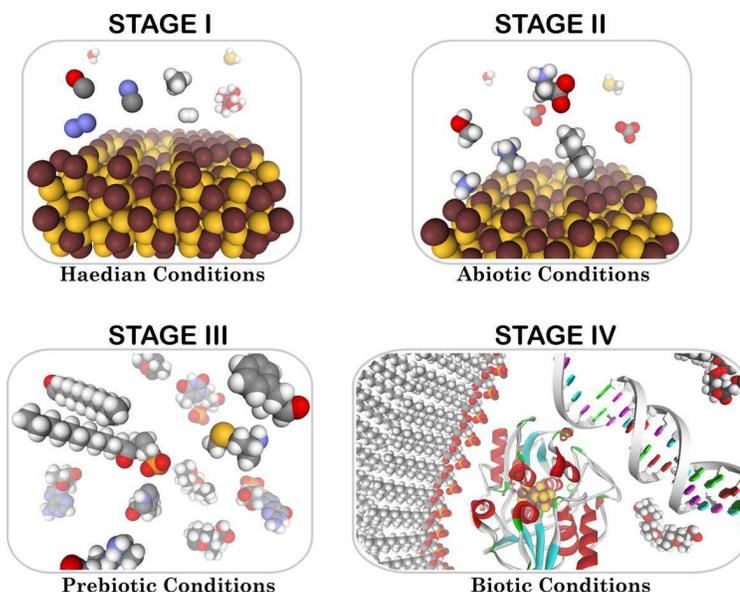
Earth was a huge ocean after the creation. It was still in a molten state, getting used to its new form. A lot of meteorites are still getting sacrificed randomly on earth's atmosphere. Various types of elements, various forms of carbons are floating everywhere, without having a clear destination. Philosophers and scientists alike believe that, this was the time when life emerged on earth. But the main debate is over how it emerged. Organic matters, carbon, nitrogen, hydrogen, oxygen were also present before life started; it is still present after life's emergence. So, how it takes a special form or arrangement, which creates a magical unique "thing" called "Life" in this earth?

Theories

Let us look at the theories that give us a fair idea about how life originated on earth. The most popular theories, or the theory that has been widely accepted as the "real" reason for life's emergence on this planet is, Primordial Soup theory.

The protein molecules are polymer of amino acids. Amino acids are considered to be building blocks of complex organic molecules which exist in living beings body. It was earlier believed that, these protein molecules can only exist inside a biological set up, it was impossible to create them "artificially" in the laboratory. Stanley Miller and Harold Urey performed an experiment in 1952 at University of Chicago to simulate the conditions thought at the time to be present on the early Earth, and tested for the occurrence of chemical origins of life.

The amino acids, considered as building blocks of life, arose among other organic molecules spontaneously in the laboratory by sparking a mixture of CH_4 , H_2O , NH_3 and hydrogen. This whole process was thought to have been taking place in a reducing atmosphere. Later research cast doubt on the existence of reducing atmosphere, and suggested a neutral atmosphere instead. Most of the reaction and synthesis of organic matter inside living beings occur



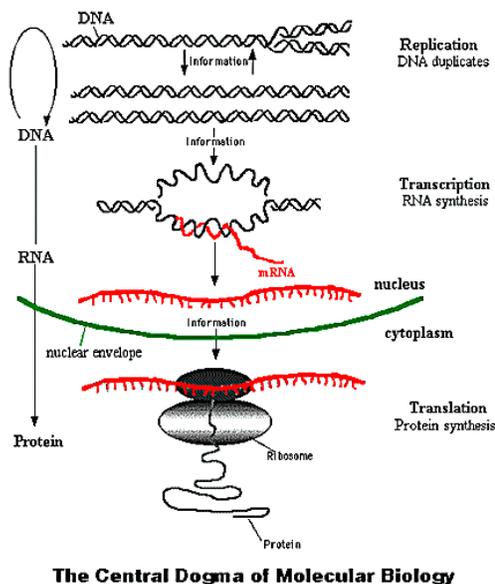
in relatively low temperatures, in absence of strong forces and generally they are devoid of side reactions, which suggest neutral atmosphere as well.

The **Primordial Soup Theory** states that Life began in a warm pond/ocean from a combination of chemicals that forms amino acids, which then make proteins. This is supposed to happen at least 3.8 billion to 3.55 billion years ago. But later due to various issues, scientists were sceptical about the validity of this theory. It was difficult to form

all the specific proteins from amino acids by accident. It was impossible to have constant “lightning” in early earth atmosphere to form life out of the “soup”. It is difficult for the soup to get concentrated and make something out of it.

The main problem with determining the nature of Life’s origin is that there are always a number of assumptions. Nobody was present in that time to determine, and the condition of earth has changed substantially even for our imaginations and extrapolations to work properly. So, the imaginations, extrapolations continued among the scientists and subsequently various more theories and experiments have emerged to prove the point. One such theory that convinced the scientists for a while as real reason for life’s emergence in earth, is the **iron-sulphur theory** proposed by Günter Wächtershäuser. It was believed that clay minerals and other form of minerals existed on earth’s surface as the catalytic bed, on which organic molecules reacted with each other to form life. Some of the clay minerals and other minerals that were present in those “catalytic beds” consisted Fe and S. Pioneer organisms, or earliest form of life, originated in a volcanic hydrothermal flow at high pressure and temperature (>1000⁰C). The hydrothermal vein considered to have a composite structure of a mineral base with catalytic transition metal centres consisting mainly Fe, Ni, and perhaps also Co, Mn, W, Zn. Acetic acid plays a special role in Wächtershäuser's theory because acetic acid is part of the citric acid cycle that is fundamental to cellular metabolism.

The theories continued to pour in. Another such theory is creation of organic molecules & amino acids by extraterrestrial forces, such as comets. In 2009 it was announced by NASA that scientists had identified one of the fundamental chemical building blocks of life in a comet for



the first time: glycine, an amino acid, was detected in the material ejected from Comet Wild-2 in 2004 and grabbed by NASA's Stardust probe. Tiny grains, just a few thousandths of a millimetre in size, were collected from the comet and returned to Earth in 2006 in a sealed capsule, and distributed among the world's leading astro-biology labs. NASA said in a statement that it took some time for the investigating team, led by Dr Jamie Elsila, to convince itself that the glycine signature found in Stardust's sample bay was genuine and not just Earthly contamination. Glycine has been detected in meteorites before and there are also observations in interstellar gas clouds claimed for telescopes, but the Stardust find is described as a first in

cometary material.

Another theory believes that life originated in outer space altogether, in a nearby planet, and came to earth from there. This theory does not hold earth responsible for generation of life. Organic compounds are relatively common in space, especially in the outer solar system where volatiles are not evaporated by solar heating. Comets are encrusted by outer layers of dark material, thought to be a tar-like substance composed of complex organic material formed from simple carbon compounds after reactions initiated mostly by irradiation by ultraviolet light. It is supposed that a rain of material from comets could have brought significant quantities of such complex organic molecules to Earth.

Siliguri Diaries

ABHISHEK DEV EE3A

A place to live in,
 A place to die for:
 Here you live among st the green
 On cloud 9 you can soar.
 Cold Winter night
 Thick Blanket of fog;
 Not a stir around
 Distant barking of a dog.
 Firm and strong hills
 Empty boulevard of dreams

Its so green in the air
 No smoke from dark sickening mills.
 Winter digs in deep,
 Sun finally seeks cover;
 Snow! Its paradise,
 Wish it'd be the same forever.
 Its home to my princess,
 Home to my clan
 I'm a thousand miles away

NARULA INSTITUTE OF TECHNOLOGY ANNUAL SPORTS 2013



Photo Ultimo1



Amar Sahar

Pratik Sengupta MTech,ECE2

Photo Ultimo2



Maa

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ACROSS

1. Enter data using the keyboard
4. Electronic component package type (abbr.)
7. Award offered by ARRL for contacting and confirming 100 or more different countries (abbr.)
9. Chemical symbol for rhodium
11. Chemical symbol for copper
19. Chemical symbol for radon
13. Mate to a pin or Ball
15. These type of Engineers generally work in a building construction project (abbr.)
16. Crystal filter type (abbr.)
17. Printed Wiring Board (abbr.)
20. Below ELF
21. Things in a bill of material

DOWN

2. Chemical symbol for palladium
3. Goes beyond published limits
4. Chemical symbol for scandium
5. Type of current
6. Ham's code for "Shall I send more slowly?"
8. Trim a piece of something to desired length."
10. Chemical symbol for holmium
12. Impenetrable physical barrier
14. Unit of frequency (archaic, abbr.)
16. Solid state power amplifier (abbr.)
17. Ratio of circumference to diameter
18. Weight (abbr.)
19. Digital transmission figure of merit (abbr.)

Check the ANSWER in next issue