



# CP PULSE

2015-2016, First Issue



*Career Point University, Tikker (Kharwarian), Bhoranj  
Hamirpur – 176041 (H.P.)*



सरस्वति नमस्तुभ्यं वरदे कामरूपिणि ।  
विद्यारम्भं करिष्यामि सिद्धिर्भवतु मे सदा ॥



Vice Chancellor and Staff with HPPEIRC Members at Career Point University

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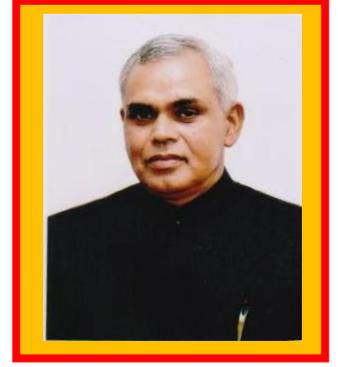
*I P.L. Gautam hereby declare that the particulars given above are true to the best of my knowledge and belief.*

Sd/-  
(P.L. Gautam)

**Acharya Devvrat**  
Governor  
Himachal Pradesh



सन्देश



**आचार्य देवव्रत**  
राज्यपाल  
हिमाचल प्रदेश

मुझे यह जानकर बहुत प्रसन्नता हुई कि करियर प्वाइंट विश्वविद्यालय, हमीरपुर फरवरी, 2016 में 'सीपी पल्स' पत्रिका का पहला अंक प्रकाशित करने जा रहा है। निश्चय ही यह अंक विश्वविद्यालय में शिक्षा एवं अन्य विषयों में उपलब्धियों का प्रदर्शन करेगा। छात्रों की रचनात्मक और साहित्यिक अभिव्यक्ति के लिए भी यह एक उपयुक्त मंच होगा। शैक्षिक संस्थानों को इस प्रकार की पत्रिकाओं का नियमित प्रकाशन सुनिश्चित करना चाहिए और छात्रों को इसमें योगदान देने के लिए प्रोत्साहित करना चाहिए तभी उनमें छिपी प्रतिभा उभर सकेगी।

विश्वविद्यालय द्वारा पत्रिका का प्रकाशन एक प्रशंसनीय कदम है, इसके लिए प्रबंधको, प्राध्यापकों एवं छात्रों को मेरी हार्दिक शुभकामनाएँ।

  
( देवव्रत )

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### **Message**

It gives me immense pleasure to know that Career Point University, Hamirpur is bringing out first issue of its Magazine “**CP Pulse**”.

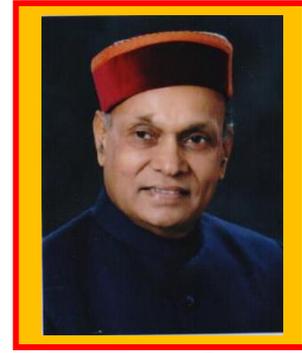
Such publications being brought out by educational institutions not only help the budding talents but also give peep into the activities and overall achievements of the institution.

I hope that the Magazine shall be highlighting the core activities of the University and would help the students and the faculty as well.

With best wishes.

  
(Virbhadra Singh)

PREM KUMAR DHUMAL  
प्रेम कुमार धूमल



FORMER CHIEF MINISTER  
LEADER OF OPPOSITION  
पूर्व मुख्यमंत्री एवं नेता प्रतिपक्ष

### MESSAGE

I am immensely pleased to know that the Career Point University, Hamirpur is bringing out the first edition of its Institutional Magazine “CP Pulse” highlighting the achievements and other activities of the University.

Himachal Pradesh is emerging an Educational Hub with the help of Universities opened in Private Sector where Professional Educational Facilities are available at affordable cost to the aspiring youth of the State at their door steps. Additionally students from the neighboring states are also seeking admissions in these universities thereby contributing significantly towards making Himachal Pradesh a centre of Higher Learning. It has been possible due to the consistent efforts made by the BJP Govt. during its tenure in the State when renowned Educational Institutions were motivated to set up their campus in the different parts of the State.

The Career Point University Management deserves congratulations for setting up the same in the rural area of Distt. Hamirpur which has provided Higher Educational Facilities to the local youths near to their homes. I hope the University will upload the highest of ethics of providing quality education to the students at affordable cost and make them competent professionals in respective disciplines.

I extend my heartiest congratulations to the management and the staff of the University besides wishing a bright and successful future to the students. My best wishes for the publication of University Magazine.

  
(Prem Kumar Dhumal)

**Pramod Maheshwari**  
**Chancellor**  
**Career Point University**  
**Hamirpur-176041 (H.P.)**



## **Message**

Dear Students,

It gives me immense pleasure to pen a few words as prologue to our in-house Magazine “**CP Pulse**” exclusively meant for churning out the latent writing talent which has potentiality of sharpening communication skill as part of overall personality development. I congratulate all the contributors and the Editorial Board for bringing out the Magazine.

In our efforts to deliver quality & career oriented education, we put more emphasis on determining one to one contact and attentive to vital needs of each student. Extending the legacy of 20 years in the field of education, the legendary Career Point Group has established Career Point University Hamirpur with state-of-the-art infrastructure and facilities.

Our courses, teaching and support staff are all there to help the students. All our courses are designed to strike the perfect balance between the requirements of the industry and the need for academics.

Come on let's give our best and make this institution a modern temple of learning through our diligence, devotion and dedication.

Wishing you all the best...!

  
(Pramod Maheshwari)

**Prof. (Dr.) P.L. Gautam**  
**Vice Chancellor**  
**Career Point University**  
**Hamirpur-176041 (H.P.)**



### **Message**

Dear Students,

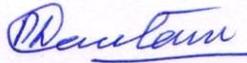
It is a matter of great pride and satisfaction for the Career Point University, Hamirpur to bring out the first issue of the annual Magazine “**CP Pulse**”. The University is poised to impart quality education to students at UG, PG, and Ph.D. levels in the Engineering & Technology, Basic & Applied Sciences, Commerce & Business Management, and Legal Studies & Governance. The University attaches high priority to holistic growth of the students under the guidance of professionals who use creativity, ingenuity and academic excellence to make leaders and professionals of tomorrow.

The University has made steady progress in academics and capacity building, as a result of which the UGC has accorded approval, a milestone in the long journey of the University.

I am confident that this issue of the University Magazine will send a positive signal to the faculty and students in developing the writing skills. An institutional Magazine is like a mirror showcasing the various programs and co-curricular activities undertaken by the University.

I congratulate the Editorial Board of the Magazine who has worked hard in accomplishing the task in record time. I am hopeful that this small piece of literary work shall not only inculcate the habit of reading and writing but also enhance a sense of belonging to the university.

Wishing you all the best in your ventures, efforts, and career.

  
(P.L. Gautam)

**Prof. (Dr.) M.R. Sharma**  
**Dean Academic Affairs**  
**Career Point University**  
**Hamirpur-176041 (H.P.)**



### **Message**

Dear Students,

It gives me immense pleasure to know that Career Point University, Hamirpur is bringing out the University Magazine “**CP Pulse**”. I appreciate the student community for taking the yeoman responsibility in bringing up this magazine, while expressing their talents and skills, not only in curricular but also in co-curricular activities. It speaks rich in culture and highest standard of education imbibed by these students in our institution. I appreciate the efforts and hard work of all the faculties and students concerned in bringing out the Magazine.

I wish the Magazine is widely read and cherished by all and hope it will continue to inspire all the students and staff of Career Point University, Hamirpur.

A handwritten signature in black ink, appearing to read 'M.R. Sharma'.

(M.R. Sharma)

**Dr. Sanjeev Sharma**  
**Registrar**  
**Career Point University**  
**Hamirpur-176041 (H.P.)**



### **Message**

Dear Students,

I am happy to know that Career Point University, Hamirpur is bringing out the first issue of the University Magazine “**CP Pulse**”. Universities Magazines are sources of inspiration for students and faculty to express their creativity. Publication of Magazine acts as springs for nurturing of talents and their overall professional development. I hope that the University Magazine “**CP Pulse**” will live upto its meaning of letting the students and faculty expressing their inherent capacity to excel. Coordinated efforts by faculty and students will enhance the image of the University to grow to newer heights.

I take this opportunity to wish you all success in your endeavor, and wish to see the University as a center of Excellence in the near future.

A handwritten signature in blue ink, which appears to be 'Sanjeev Sharma'. The signature is stylized and written over a light blue background.

(Sanjeev Sharma)

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**Dr. Kuldeep Kumar**  
**Chief Editor**  
**Department of Chemistry**  
**CPU Hamirpur-176041 (H.P.)**



### **From the Chief Editor's Desk**

Being the Chief Editor of the Career Point University, Hamirpur Magazine “**CP Pulse**”, it gives me great pleasure to bring to you this issue. “**CP Pulse**” is designed to present to its readers the year's events that have gone by; the Magazine also showcases the talents of our faculty members and students. With a sense of pride and satisfaction I would like to say that with the active support of the Hon'ble Management, University administration, faculty and students, “**CP Pulse**” has come alive. With all the efforts and contributions put in by the students, I truly hope that the pages that follow will make some interesting reading.

I congratulate the editorial team for making “**CP Pulse**” innovative and inspiring.

*Kuldeep*  
(Kuldeep Kumar)

# Science & Technology Section

## From Student Editor's Pen



Dear Readers,

It is a matter of great honour and happiness for me to present the “**Science and Technology Section**” of university magazine “**CP Pulse**”. As you all are aware of the fact that every human being is endowed with the great talent of giving an expression to his creative urges and he is continually on the lookout for a platform to showcase this talent. In fact, it is a great opportunity and forum of expression for the budding writers who will ultimately be shaped into prolific writers. Besides, providing platform to the young writers to show their creativity, it highlight the activities of the institution.

So I am extremely delighted in bringing you the “**Science and Technology Section**” of the university magazine “**CP Pulse**”. Due to variety of reasons many contributions do not feature in this issue of university magazine, but I would request the students not to feel discouraged and keep working hard towards the fulfillment of their capabilities.

I am thankful to **Dr. Amita Sharma** who gave me the opportunity to be “**Student Editor**” of the “**Science and Technology Section**” for the university magazine “**CP Pulse**”. I hope everyone will like the wonderful and knowledgeable “**Science and Technology Section**” of “**CP Pulse**”. In the end, I am also thankful to the students for their precious thoughts and knowledge in the form of their articles.

Ashish Kumar  
(M.Sc. Chemistry 2<sup>nd</sup> Semester)

## EBOLA

### What Is Ebola?

Ebola is a dangerous virus that can cause people to get very sick and even die. If an outbreak happens, it can spread quickly. People all over the world are concerned about Ebola and are taking steps to stop it and to treat those who are sick.

Ebola symptoms can start with fever and headache, similar to flu infection. But it can get worse and cause life-threatening symptoms, such as bleeding and trouble breathing.

It's very important that infected people get treatment right away. People who have Ebola need to be cared for in a special way so that the disease doesn't spread to doctors, nurses, or others in their families and communities.

### How Do People Catch Ebola?

Ebola does not spread like colds or the flu because it does not float through the air. Ebola also doesn't spread through food or water, like some other viruses. Instead, Ebola spreads when someone touches the body fluids (such as spit) of a sick person. That's why it's so important that hospital workers wear protective equipment that covers them from head to toe.

### What Is A Outbreak?

An outbreak is a situation when many peoples get sick with the same illness around the same time. You may have heard of a flu outbreak, in which lot of people get sick from the same type of flu virus.

### Where Did Ebola Come From?

Scientists aren't sure how the first person gets Ebola at the start of an outbreak. But they think that people may pick up the virus by touching or eating infected animals. Tropical animals in Africa believed to carry the virus include Great Apes, Chimpanzees, Gorillas, Monkeys, Fruit Bats, Porcupines, and Forest Antelope. Ebola gets its name from the Ebola River in the Democratic Republic of Congo (formerly Zaire). The

disease was first reported in a village on the river in 1976. Since then, there have been a few outbreaks of the disease in western Africa, Uganda and Sudan.

### What Do Kids Need to Do About Ebola?

Ebola is rare and does not spread easily. In fact, you are much more likely to get the flu (so get your flu vaccine!). And no matter where you live, it's always a good idea to wash your hands well and often. Keeping your hands clean can help you to stay protected from lot of illnesses.

Nancy Sharma  
(M.Sc. Chemistry 4<sup>th</sup> Semester)

## SIAMESE–THE FIGHTING FISH

**Siamese**-The fighting fish is very colorful and beautiful fish. Most of us have seen it in our aquarium pots. Its scientific name is *Betta splendens*. It's about 2-3 inches in size. It is the perfect Aquarium fish because of its beautiful colour.

*Betta* fishes are mainly found in Thailand, Indonesia, Malaysia, Vietnam and a very few regions of China. It eats aquatic plants, small aquatic insects and dead animals. These *Beta* fishes can live only for 2-3 years.

Their name "The Fighting Fishes" is perfectly based on their nature as they cannot live in a group. If we place two male *Beta* fishes in an aquarium Pot, they fight with each other till someone from the fishes got died. That is why they are called fighting fishes.

These beautiful *Beta* fishes are not just beautiful but they also have many special features. These *Betta* fishes do not have any gills for respiration. They have special respiratory organ called labbibrinth. They prefer fresh air for respiration instead of taking the oxygen present in the water. Labbibrinth helps them to respire from direct air. They come to the surface of water for the respiration purpose. It is very important

to note that if labyrinth is replaced, *Betta* fishes can die because of suffocation. One another interesting point about these *Betta* fishes is related to their way to secure their eggs from the enemies. Male *Betta* fishes make 'Bubbles' from their mouth in which the females lay their eggs. Bubbles are safely placed on the aquatic plants or any other place until these eggs developed into new '*Betta* Fishes'.

**Kavita Sharma**  
(M.Sc. Botany 2<sup>nd</sup> Semester)

## CANCER

### What is Cancer?

Cancer refers to a group of illnesses that result from cells in the body growing abnormally. These cells divide and produce new cells in an uncontrolled way that can spread throughout the body and cause damage to essential organs. When cancer spreads to other parts of the body, this is called metastasis. Metastases can occur when cancer cells enter the bloodstream or lymph system. These systems circulate all over the body and allow the cells to travel. Tumors are masses (or lumps) that can develop as abnormal cells accumulate. Not all tumors are cancer. Benign (non-cancerous or nonmalignant) tumors do not spread to other parts of the body and are rarely life-threatening.

There are four main types of cancer:

1. Carcinomas – cancers of the organs
2. Sarcomas – cancers of the muscles, bone, cartilage, and connective tissue
3. Lymphomas – cancers of the lymphatic system
4. Leukemias – cancers of the blood-making system

Cancer cells vary in how fast they grow and how they spread in the body. Most cancers are defined by stage of growth using a system developed by the American Joint Committee on Cancer for solid tumors (like

cancer of the lung, breast or colon). The stage is based on the size of the tumor and on how much the cancer has spread.

Stage I– Primary tumor only

Stage II– Primary tumor, but larger than in stage I

Stage III–Primary tumor and metastasis to lymph nodes

Stage IV– Primary tumor and distant metastasis

### Cancer risk factors:

1. Tobacco use.
2. High fat diet and being overweight.
3. Excessive exposure to sunlight.
4. Drinking too much alcohol.
5. X-rays and other sources of radioactivity.
6. Geographic area.
7. Chemicals and other substances in the environment (carcinogens).
8. Unsafe sexual practices (through acquiring certain infections, such as HIV or genital warts).
9. Family members who have cancer (certain types of cancer are hereditary).

### Common Symptoms of Cancer:

It is important to know that these symptoms do not mean that the patient has cancer. Only a doctor can make a diagnosis.

1. Thickening or lump in the body.
2. Cough or hoarseness that does not go away.
3. Obvious change in a wart or mole.
4. Changes in bowel or bladder habits.
5. Unexplained bleeding or discharge.
6. Any sore that does not heal.
7. Unusual upset stomach or difficulty swallowing.

### Treatment for cancer:

The good news is that about half of all cancers diagnosed are now curable. Even with cancers that cannot be cured, symptoms are often greatly diminished by treatment. Treatment options which depend on the stage and type of cancer include:

**Surgery:** About 60% of people with cancer can have some sort of surgery. If the tumor

is in one place and can be removed without interfering with body functions, then surgery may be the best approach.

**Radiation therapy:** Radiation therapy is done to shrink tumors or to make them disappear. This can be done by directing beams of x-rays or other high-energy rays at the tumor site. Radioactive materials can also be placed in or near the tumor.

**Chemotherapy:** Radiation and surgery are often used to treat cancer that is restricted to one part of the body. Chemotherapy may be used to treat cancer that has spread. Treatment can also be a combination of surgery, radiation and/or chemotherapy. Some chemotherapy chemicals can be taken by mouth, others need to be taken intravenously (into the blood through a vein).

**Biological therapy:** Biological therapy uses treatments that help the immune system to do its job of fighting disease in our bodies. This can be an effective treatment for some cancers.

**Hormone therapy:** For cancers that need hormones to grow, hormonal therapy can be an option. With this therapy, the production of hormones is reduced through surgery or medication.

There are many ways to reduce your cancer risk:

1. Maintain a healthy body weight.
2. Be physically active every day.
3. Enjoy a healthy diet.
4. Aim for at least two serves of fruit and five serves of vegetables each day.
5. Eat a variety of wholegrain, whole meal and high fibre foods such as cereals, breads, rice and pasta.
6. Limit or avoid drinking alcohol.

**Diksha Parmar**  
(M.Sc. Chemistry 4<sup>th</sup> Semester)

## PHYSICS

Physics is a very interesting subject. It has

seven members and every member of this conveys essential qualities.

1. The first member "P" stands for "Promise" which makes a student to achieve their goal.
2. The second member "H" stands for "Hard Work" without which success can never be achieved in this subject.
3. The third member "Y" stands for "Yearn" which helps us to prove and make new things.
4. The fourth member "S" stands for "Shrewdness" which is most essential for a Physicist.
5. The fifth member "I" stands for "Interest" which helps us to grow as a good Physicist.
6. The sixth member "C" stands for "Cleverness" without which learning of the subject is not possible.
7. The last member "S" stands for "Smile" which plays on the lips of a Scientist or Physicist when he proves the new theory or law.

**Rajni Sharma**  
(M.Sc. Physics 2<sup>nd</sup> Semester)

## MAKING MOLECULES THAT TWINKLE

Single step process transforms carbon dioxide into star shaped molecules that are promising building blocks for useful polymeric materials.

Carbon Dioxide is a cheap and accessible base material suggests lead researcher He Kuan Luo from the A\*STAR institute of Materials Research and Engineering. Therefore many people are searching for efficient methods to transform carbon dioxide into useful molecules," he explains. "But transforming carbon dioxide is not typically easy.

His team has developed a simple route to use carbon dioxide to make aromatic compounds that can be used as building blocks for more complicated materials.

They created symmetrical benzene rings with three or six identical arms comprising carbonate groups terminated by carbon-carbon triple bonds, or 'alkynes'. "We can integrate the carbon dioxide into the molecule without the need for high temperatures or high pressure," said Luo.

The team introduced carbon dioxide from dry ice to an alcohol with an alkyne end group and benzene rings decorated with either 3 or 6 alkyl bromide groups. "At the beginning, however, only some of the branches reacted so we could not get the desired compound," Luo explained.

The team fine tuned the process and found the reactions worked most efficiently at room temperature, with the carbon dioxide at atmospheric pressure and with the addition of both the promoter tetrabutylammonium bromide (TBAB) and the base potassium carbonate. "We tried many times and after a few months, we finally got all six branches to react," he said. Adding the promoter to the mix doubled the product produced. "It is likely that the tetrabutylammonium cation enhances the rate of CO<sub>2</sub> incorporation by stabilizing the carbonate anion," said Luo. The synthesis of the three armed and six-armed star-shaped molecules took two and four days respectively.

The alkyne on the end of each arm in these molecules should theoretically be able to react with a host of different molecules using simple click chemistry- to produce a range of complex or functional materials. "We are currently trying to use the six-armed branched molecules to build more functional star-shaped molecules, which may find applications in catalysis, coatings and drug delivery," said Luo.

**Pratibha Thakur**  
(M.Sc. Chemistry 2<sup>nd</sup> Semester)

## YELLOW FEVER

1. Yellow fever, known historically as yellow jack, yellow plague, or bronze john, is an acute viral disease.
2. In most cases, symptoms include fever, chills, loss of appetite, nausea, muscle pains particularly in the back, and headaches.
3. Symptoms typically improve within five days.
4. In some people within a day of improving, the fever comes back, abdominal pain occurs, and liver damage begins causing yellow skin.
5. If this occurs, the risk of bleeding and kidney problems is also increased.
6. The disease is caused by the yellow fever virus and is spread by the bite of an infected mosquito.
7. It infects only humans, other primates and several species of mosquitoes.
8. The virus is an RNA virus of the genus Flavivirus.
9. The disease may be difficult to tell apart from other illnesses, especially in the early stages.
10. A suspected case, blood sample testing with Polymerase Chain Reaction (PCR) is required.

**Abhinav Sharma**  
(B.Sc. Hons. Maths 2<sup>nd</sup> Semester)

## CLONING: A BLESSING OR A CURSE

Cloning is an advanced technological invention producing a genetic twin of a living organism. Organisms start life with the same genes as its parents in mammals, DNA is taken from an adult animal and then it is inserted into an egg cell from another animal in cloning procedure. This egg then divides into an embryo. The embryo is then transplanted into a surrogate mother and grown to term. This process has worked in animals like cow, sheep, goat, mouse and pig while such attempts could not succeed in rabbit, rat, cat, dog, monkey and horse.

The successful cloning of endangered animals in Scotland has suggested a way to produce them on a large scale. Soon they would be reared on farms for their skin, fur, skeleton and tusks. It has been our greed which has led them toward the brink of extinction. The same technique was used to produce Dolly sheep, was applied but in this case every cell of donar embryo was used to produce identical clones. There is another fear that human cloning lead to the evolution of super humans as envisaged by the Nazis. As human, we have to act with restrain and good sense.

**Arti Devi**  
(M.Sc. Chemistry 2<sup>nd</sup> Semester)

### **CONTENT RESPONSIBLE FOR FLAVOUR OF TEA**

Tea is made from the young leaves and buds of the tea plant. Tea leaves are rich in caffeine (an alkaloid). Beside caffeine, tea leaves contain Tannic acid and colouring matter, such as polyphenolic compound. The relative amount of these substances is different in different varieties of tea leaves that is why their taste and flavours are different.

The brownish colour of tea is due to the presence of polyphenolic compound and some inorganic ions like manganese, ferric etc. The tea having better flavour has more polyphenol content.

**Diksha Sharma**  
(B.Sc. Hons. Physics 2<sup>nd</sup> Semester)

### **STEM CELLS FROM WISDOM TEETH COULD HELP REPAIR CORNEAS**

Stem cells from the pulp of extracted wisdom teeth could provide a viable therapy for corneal blindness. Stem cells inside your teeth could help repair eye scratches that

cause blindness. The cornea is a thin outer layer of tissue that protects human eyes and helps focus light on the retina. Deep scratches can scar the cornea, sometimes resulting in blindness. Researchers at the University of Pittsburgh propose using dental pulp stem cells as an alternative to hit- or- miss corneal transplants. The researchers engineered dental stem cells from extracted wisdom teeth to grow into a complex cornea like structure.

**Jyotsna**  
(M.Sc. Chemistry 4<sup>th</sup> Semester)

### **HUMOUR OF CHEMISTRY**

Once three professors of physics, chemistry and biology went to river side, the physics professor said he wanted to measure the length and breadth of river and jumped into the river. The biology professor said, he wanted to study the structure of water organisms and so he jumped into the river. After a long time when two professors did not return, the chemistry professor inferred that the two were soluble in water.

**Manohar**  
(M.Sc. Physics 2<sup>nd</sup> Semester)

### **BURNING OF SUN IN THE ABSENCE OF OXYGEN...HOW?**

We know that there is no oxygen in the space and for anything to burn oxygen is required. Only in the presence of oxygen things are burnt. Now, question is that without oxygen in space, sun is burning for about many years, how?

It is because burning of sun is a nuclear reaction i.e. nuclear fusion in which hydrogen integrates and form helium. In the inner core of sun there is hydrogen which is converted into helium by nuclear fusion. During this nuclear fusion large amount of energy is produced and temperature reaches to 10 lakh degree Celsius. At that time heat

and energy comes from the inner core to outer core of the sun. Then the temperature is 5000 degree Celsius and at the temperature sun blowing fast and appears as it is burning and this shining reaches the earth as light. Again, a question arises that nuclear fusion takes place in sun for about thousands years so sun is burning continuously how? The reason of continuous burning of sun is the nuclear fusion reaction inside the sun that produced the large amount of energy and heat. Due to this large amount of energy and heat, nuclei of hydrogen vibrate continuously and collide with each other and integrate to form helium. During the formation of helium large amount of energy is released and again this energy, vibrate the other hydrogen nuclei and this process continuously proceeds, and this is secret of the burning sun in the absence of oxygen.

**Ramjita Thakur**  
(M.Sc. Chemistry 2<sup>nd</sup> Semester)

### **ROLE OF PHYSICS IN OUR DAILY LIFE**

“Any sort of technology which we use in our daily life is related to physics.”

Physics is the science of matter and its motion, space time and energy. Physics describe many forms of energy – such as kinetic energy, electrical energy and mass; and the way energy can change from one form to another. Everything surrounding to us is made up of matter and physics explains matter as combinations of fundamental particles which are interacting through fundamental forces. It will not be an exaggeration if it is said that Nature is almost Physics (apart from the fact that the word Physics itself is derived from Greek “physis” meaning nature.)

Physics is all around us. We can find Physics as the backbone for our daily life. For example electric light, electricity, the working of our vehicle, wristwatch,

cellphone, CD player, radio, plasma TV set, computer etc.

As we all know physics is the study of natural phenomena. We can see the examples given below:

1. Television uses electromagnets to direct electrons on a screen to produce pictures.
2. A cell phone uses microwaves.
3. Our car is built on mechanical principles.
4. A refrigerator uses thermodynamic principles.
5. Most modern home uses electricity to power appliances.

Physics is also necessity in solving our future problems. The examples cited above show that forward-looking developments are based on the insights of physics. This applies most especially to all problems, or rather solutions which are critical for our future. Whether it pertains to new materials, the development of fuel cells for a more eco-friendly propulsion techniques, or nuclear fusion as a source of energy in the future, in any event, physics creates the conditions for solving problems.

**Rajni Sharma**  
(M.Sc. Physics 2<sup>nd</sup> Semester)

### **CLICK CHEMISTRY**

Click chemistry is a class of biocompatible reaction intended primarily to join substrates of choice with specific biomolecules. Click chemistry is not a single specific reaction, but describes a way of generating products that follows example in nature, which also generates substances by joining small modular units. Click chemistry is not limited to biological conditions. The concept of a click reaction has been used in pharmacological and various biomimetic applications. However, they have been made notably useful in the detection, localization and qualification of

bio molecules. Click reaction occur in one pot, are not disturbed by water, generate minimal and inoffensive, byproducts, and are “spring loaded” – characterized by a high thermodynamic driving force that drives it quickly and irreversibly to high yield of a single reaction product, with high reaction specificity. These qualities make click reaction particularly suitable to the problem of isolating and targeting molecules in complex biological environments. In such environments, products accordingly need to be physiologically stable and any byproducts need to be non toxic by developing specific and controllable bio-orthogonal reaction, scientists have opened up the possibility of hitting particular targets in complex cell. Recently, scientists have adapted click chemistry for use in live cells, e.g. using small molecule probes that find and attach their target by click reaction. Despite challenges of cell permeability bio orthogonality, background labeling, and reactions efficiency, click reaction have already proven useful in new generation of pull-down experiments in which particular targets can be isolated using, for instance, reporter molecules which bind to a certain column, and fluorescence spectrometry.

**Rajesh**  
**(M.Sc. Chemistry 2<sup>nd</sup> Semester)**

## NANOTECHNOLOGY

The term "nano" refers to the metric prefix  $10^{-9}$ . It means one billionth of something. Nano can be ascribed to any unit of measure. The term "technology" was first used by Norio Taniguchi in 1974. Physicist Richard Feynman is the Father of Nanotechnology. Nanoscience is the study of structures. It is the study and application of extremely small things. It involves the ability to see and to control individual atoms and molecules.

Here are a few illustrative examples of nanotechnology. There are 25,400,000 nanometers in an inch. A sheet of newspaper is about 100,000 nanometers thick.

Scientists and engineers are finding a wide variety of ways to the nanoscale to take advantage of their enhanced properties such as higher strength, lighter weight, increased control of light spectrum and greater chemical reactivity than their larger scale counterparts.

Nanoscale Science and Technology are fueling a revolution in manufacturing and production, creating new materials and novel processes. Not only will the areas listed above continue to grow and benefit from nanotechnology, but the following fields are expected to undergo explosive developments:

1. Medicine: Diagnostics and therapeutic (e.g. drug delivery)
2. Energy: Capture, storage, and use; fuel cells, batteries.
3. Environmental remediation: In conjunction with GM microbes.
4. Robotics: Many uses.
5. Manufacturing: Selfassembly and "Bottom-up" fabrication of novel materials
6. Commerce: Radio frequency Identification (RFID) "smart" tags
7. Space exploration: Space elevator.

**Shivani**  
**(M.Sc. Physics 2<sup>nd</sup> Semester)**

## LIFE OF A SCIENCE STUDENT

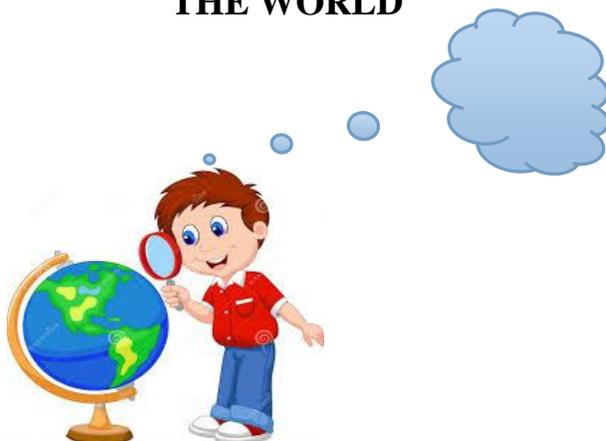
A science student is a compound formed by the combination of tension, fear and worry in a definite proportion. He can't take sound sleep because ultrasonic sound of physics and difficult words of biology are always buzzing in his ears. Thus like a bat he is always thinking about his studies even in the bed, while the books are far away from

him on his table. He can't have, "oscillatory motion" executed by mind forwards the books.

A science student learns everything on the basis of "Absorption" but as soon as he enters the examination hall, the brain gets heated up in friction. So other phenomenon of "Evaporation and Hybridization takes place". Results are out with small departments in place of compartments. But student should think that God has another better idea for him and follow try-try again. We should have self confidence, focus and should develop the attitude and should not feel nervous in any situation.

**Babita Patyal**  
(M.Sc. Chemistry 2<sup>nd</sup> Semester)

## AMAZING FACTS AROUND THE WORLD



1. 1.3 million Earths could fit inside the Sun, an average sized star.
2. If you drilled a tunnel straight through the earth and jumped in, it would take you about 42 minutes to get to the side.
3. Lightning strikes earth about 100 times per second and 8.6 million times per day.
4. Krubera cave the deepest known cave on earth, has a depth of 2,197m [7,208ft].
5. Scientist finally concluded that the chicken came first, not the egg because

the protein which makes egg shell is only produced by hens.

6. Each foot contains about 250,000 sweat glands.
7. Lips lack sweat gland.
8. Only the five minutes without oxygen can cause brain damage.
9. The brain is much more active at night than during the day.
10. Babies are born with 300 bones, but by adulthood the number is reduced to 206 bones.
11. You have no sense of smell when you are sleeping.
12. Salt is one of the few spices that have taste, and no smell.
13. Bubble gum contains rubber.
14. Honey is the only food that does not spoil.
15. Apple has 25% air. That is why it floats on water.
16. Zero is the only number which is known with so many names including naught, nougat, nil, zilch and zip.

**Sushmita**  
(M.Sc. Botany 2<sup>nd</sup> Semester)

## ZIKA VIRUS

Many question arises about the Zika Virus like what is it? From where it comes, what are the prevention? etc. So the answer is Zika virus is related to dengue, yellow fever etc. and this disease is a vector borne disease caused by Zika Virus that is transmitted to people primarily through the bite of an infected Aedes Mosquito which is mostly active during the day. The transmission of these diseases occurs when the Aedes mosquito bites a normal person after biting an infected patient. And this virus generally spread through blood transfusion, sexual contact and from pregnant mother to baby at birth or during pregnancy. The symptoms of Zika virus typically begin 2 to 7 days after being bitten

by an infected mosquito. It is also known as inducing Microcephaly. Microcephaly is a condition in which a baby's head is abnormally smaller than normal. Babies with microcephaly can have range of problems like intellectual disability, vision problem, hearing loss, development delay, problem with movement and balance. These problems can range from mild to severe and are often persist lifelong. A vaccine is being developed for the virus but till then you can protect yourself from mosquito bite. Zika virus is now present in over 23 countries. It is a saying that "*Prevention is better than cure*". So the best way to prevent being infected is to avoid being bitten by mosquitoes.

**Tanuja Sharma**  
(M.Sc. Chemistry 4<sup>th</sup> Semester)

### A CALL UPON CHEMISTRY

O my dear chemistry  
I am just unable  
To understand your mystery  
Will you please tell me?  
Something about your history  
If you can't tell then  
What is the use of your victory?  
Some of your reactions are  
So quick and fast  
That I can't remember even one  
Until the last  
But some of your reactions are  
So dull and slow.  
That a single look on them  
Causes my tear to flow  
On seeing your lovely question paper  
I am too much confused  
O tell me what to do so that  
You may be amused.

**Archana Sharma**  
(M.Sc. Chemistry 2<sup>nd</sup> Semester)

### FRUIT

Fruit is most natural food. When you see a piece of fruit hanging from a tree that tree is telling you something: "Eat my fruits and help me to spread my seed." That's how nature works! Humans eat vegetables and fruits and consequently help the plants to spread. Humans use animals to work on the land to grow the plants and trees that produce fruits and vegetables.

Imagine a world without fruit! – Without apples, oranges and blue berries. There wouldn't i.e. any strawberry cake cheerypie and juices etc. and we would not be very healthy. We get a lot of vitamins from fruits. Fresh fruits are rich in vitamin C which helps your immune system to work at its best. Fruits are generally high in fibre, water and vitamins.

Organically grown fruits are best for consumption. Regular consumption of fruit is associated with reduced risk of cancer, cardiovascular disease, stroke, Alzheimer diseases. Grapes, banana, mulberry, plum, and pineapple are seedless fruits.

**Largest fruit:** Jackfruit (34.6 kg) 57.46 cm. It was grown by George and Margret of captii cook Hawaii USA

**Smallest fruit:** *Wolffia Augusta*, 0.3 mm in length which is equivalent to size of one particle of table salt.

**Ruchi Thakur**  
(M.Sc. Botany 2<sup>nd</sup> Semester)

### HUMAN EYES

Human eyes are the most complex organ except brain. It is composed of more than two million working parts. Average person blinks 12 times per minutes and about 10000 blink in a day. Human eye can process 36,000 bits of information every hour. Only 1/6<sup>th</sup> of the human eye ball is exposed to the outsides worlds. The external muscles that move the eye are hundred times more powerfull than they need to be.

Colorblind person do see color but confuse certain color in certain conditions. Red and green are the most commonly confused color among them and color blindness is 10 times more common in male then females.

**Shilpa Sharma**  
(M.Sc. Chemistry 2<sup>nd</sup> Semester)

### MEDICINAL DISCOVERIES

Discovery	Inventor	Year
X-ray	W. Roentgen	1895
Antibiotic	Alexander Fleming	1928
Antiseptic	Joseph Lister	1865
Aspirin	Felix Hoffman	1897
Blood circulation	William Harvey	1628
Blood group	K. Hundsteiner	1900-1902
Malaria parasite	Laueran	1880
Ultra sound	Ian Donald	1950
Thermometer	Sir Thomas Albert	1865

**Anjana Kumari**  
(M.Sc. Chemistry 2<sup>nd</sup> Semester)

### SLIM OR OBESE: ROLE OF GUT BACTERIA

Some persons are slim and some are obese!!!!!!!!!!!!

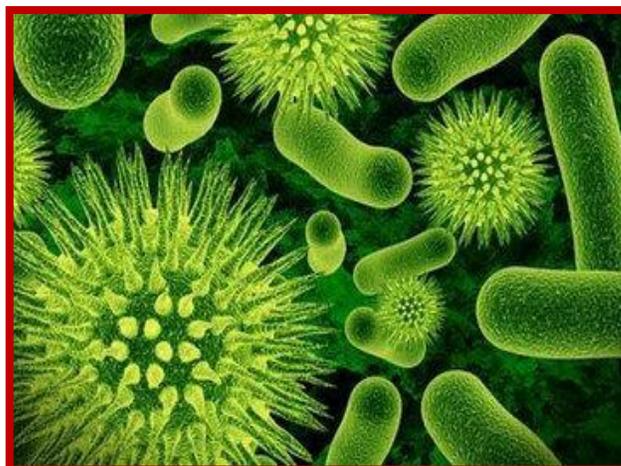
Gut bacteria may be able to "spread" obesity from one organism to another when they are transplanted, at least in mice, a new study suggests.

In the study, mice that had been raised in a sterile environment, so that they lacked gut bacteria, were transplanted with gut bacteria from either a lean person or an obese person. Mice that received bacteria from an obese twin gained more weight and fat than those that received bacteria from a lean twin person.

What's more, the transplant altered the metabolism of the mice: animals that received gut bacteria from an obese person

had changes in their metabolism that have been linked with obesity in humans (such as increased production of compounds called branched-chain amino acids). Those that received gut bacteria from a lean person had changes linked with weight loss (such as increased breakdown of carbohydrates).

The findings add to a growing body of research suggesting that gut bacteria may influence weight. Recently, studies have found that obese people have a less diversity in their gut flora than lean people.



**Ronika**  
(M.Sc. Botany 2<sup>nd</sup> Semester)

### LETTER TO A MEDICAL STUDENT

Dear Medico,

When I saw you in the circular park in between the circle of your friends and you were in the centre, my heart started vibrating with a frequency which is directly proportional to your smile. My eyes start emitting radiations towards you with velocity of light. But your friends acted as reflectors because of which the contact angles become obtuse. When you talk to me I think that we are at extreme positive. But when I differentiate the whole equation, I came to know that you are not a dependent variable. But it is your work because of

which I become independent variable. After sometime you had left me like an electron ejected out in photoelectric effect and it was an empty sole. I was left high and dry.

**Shipra**  
(M.Sc. Botany 2<sup>nd</sup> Semester)

### DO YOU KNOW

#### Q.1 How Can an Owl See At Night?

**Ans:** Owl is a nocturnal animal. The eye balls of the owl are elastic. The owl can focus them instantly for any distance. It can also open the pupil of its eyes very wide. This enable it to make use of all the night light available. The Owl's eyes are so placed that it has to turn whole head to change the direction of its glance.

#### Q.2 Why Is the National Science Day Celebrated On 28<sup>th</sup> February Every Year?

**Ans:** National Science Day is indeed a tribute to C.V Raman, the first Indian scientist to win the Nobel Prize in Physics. It was 28<sup>th</sup> Feb. 1928 that the "Raman Effect" was discovered and day is celebrated as National Science Day.

#### Q.3 Why Is Carbon Monoxide Dangerous?

**Ans:** Carbon monoxide is poisonous. Being colourless and odourless a dangerous amount of the gas can leak out before it is detected. The inhaled carbon monoxide gets into blood stream and combines with the haemoglobin in Red Blood Corpuscles (RBC), preventing them from carrying life giving oxygen to various parts of the body. If breathed in continuously in a closed space the person will slip into unconsciousness and die.

**Sharmila Devi**  
(M.Sc. Chemistry 2<sup>nd</sup> Semester)

## ENVIRONMENT & POLLUTION

When we are free  
We should plant a tree

By this, Environment becomes pollution free.

If there is pollution,  
We don't get clean air.

If everybody plant tree, breathing is quite fair.

We should not cut trees,  
Because oxygen is not free.

If carbon dioxide is more, breathing is never sure.

**Jyoti Kumari**  
(BALLB 4<sup>th</sup> Semester)

## DRUG ADDICTION

A drug (derived from the word Drogue = a dry herb) is that chemical which is usually taken for the treatment of some mental disorders like depression, insomnia etc. on the advice of some physician and is withdrawn as soon as desired effect is achieved.

The habitual non-medical use of certain drugs forms a habit and one becomes a drug dependent. This is called drug dependency or drug addiction or drug abuse. Such drug in their high concentration and frequent uses act in brain of an individual and are called mood altering or psychoactive drugs. These include narcotics like opium, psychomotor stimulants like cocaine & sedatives like alcohols.

### Types of drugs:

**Sedative and Tranquillizers:** These act as depressant and suppress the activities of CNS. Sedatives give a feeling of calmness, relaxation or drowsiness in the body. Their high doses induce sleep. Tranquillizers eliminate tension and anxiety.

**Opiate Narcotics or Opioids:** These acts depressant and analgesic, so commonly

known as pain killers. These binds to their specific opioid receptors present in CNS (central nervous system) and gastrointestinal tract. Opiates lessen pain, reduce tension and anxiety, lower blood pressure and respiratory rate, induce drowsiness, constrict the pupil and reduce the visual activity. An opium addict loses weight, fertility, interest in work and working efficiency. An overdose of opiates may cause acute intoxication which is characterized by apathy, hypotension & pin point pupils. In severe care, it may block respiration and cause death.

**Stimulants:** These increase the activity of CNS, so known as mood elevators. Stimulants induce excitement, increase self confidence and enhanced alertness, wakefulness, loss of appetite etc. Acute intoxication is characterized by papillary dilation, a sense of euphoria, hypertension, sweating, vomiting etc.

**Hallucinogens:** These are those drugs which change thoughts, feelings and perceptions of an individual who claims that he can 'see sounds' and 'hear color'. These drugs are also called psychedelic drugs because they have a strong effect on the cerebrum and sense organ. These cause hallucination(seeing objects which are not present) due to synthesis in which sensation on one sensory modality is caused by a sensation in another sensory modality, nightmares, increased sugar level in blood, increased frequency of urination.

Example: Lysergic Acid Dimethylamide (LAD) Chares and Bhang.

**Reason for drug addiction in adolescents:**

1. To get relief from frustration and depression.
2. Peer pressure.
3. False belief of enhanced physical, mental and intellectual.
4. A continued use of drugs for relief pain.
5. Feeling of independence.

**Asha Kumari Koundal**  
(M.Sc. Chemistry 2<sup>nd</sup> Semester)

## AMAZING FACT WHY A CHILD CRIES AFTER BIRTH



It is commonly seen that newly born baby cries soon as it is delivered. If it does not cry there is every possibility that it will die within short time. Because the lungs of newly born baby are very much similar to a chapatti. When a child is born, his lungs are sticking together without any space between the walls (just as a chapatti before baking). But when child cries, jerking movements open up or infolded the lungs just as a chapatti is filled with this leads to beginning of breathing mechanism.

However if a child does not cry, the lungs remain closed thus the breathing does not start and the child dies after some times.

**Priyanka Chandel**  
(M.Sc. Botany 4<sup>th</sup> Semester)

## GRAVITATIONAL WAVES

In the latest research Scientists said that they have for the first time detected gravitational waves, ripple in space and time hypothesized by physicist Albert Einstein a century ago, in a landmark discovery that opens a new window for studying the cosmos.

The researchers said they detected gravitational waves coming from black holes, extraordinary dense objects, whose existence also was foreseen by Einstein that

orbited one another inward and smashed together. They said the waves were the product of a collision between two black holes 30 times as massive as the sun located 1.3 billion light years from earth.

The scientific milestone announced at a news conference in Washington was achieved using a pair of grant laser detectors in United States located at Louisiana and Washington Stat Camping a long quest to confirm the existence of these waves. The announcement was made in Washington by scientists from the California Institute of Technology and the LIGO scientific collaboration.

Like light gravity travels in waves but instead of radiation, it is space itself that is rippling. Detecting the gravitational waves required 4km laser beams to precision 10,000 times smaller than a proton.

**Anchal**  
**(M.Sc. Physics 2<sup>nd</sup> Semester)**

### **SOFT DRINKS: BENEFICIAL OR HARMFUL**

Now a day's soft drinks are favorite drinks for all classes of people in the world. As a cricket fan or music lover, you may watch the advertisement of any soft drinks after each over or you may found that the concert or the world tour of your favorite singer is sponsored by any soft drinks company. The huge investment by these companies in their advertisement only for your attraction and fact is this that the demand of these soft drinks is increasing day by day. So, we have to realize that how much these drinks are healthy for our body. A soft drink is a drink that typically contains carbonated water, a sweetener, and a natural or artificial flavoring. The sweetener may be sugar, high fructose corn syrup, fruit juice, sugar substitutes (in the case of diet drinks), or some combination of these. Soft drinks may also contain caffeine, colorings,

preservatives and other ingredients. When you eat or drink, food or liquid touches your palate before you swallow. Your palate is also known as the roof of your mouth. You can feel your palate with your tongue. Some people call this a "brain freeze," even though nothing is really happening in the brain, it's all in the blood vessels of the head. These drinks are often marketed as enhancing performance and stimulating metabolism and are sometimes described as being "highly vitalizing". When we open the cork of bottle, the gas which is come out is carbon dioxide (CO<sub>2</sub>). Sodium bicarbonate (NaHCO<sub>3</sub>), Citric acid, Tartaric acid and other chemicals are also present. The saccharine, sorbitol, manitol, etc. are used to increase the sweetness which is not hygienic.

#### **Role of soft drinks in our body:**

- All the gas content does not come out when the cork is opened thus the harmful CO<sub>2</sub> enter into the body when we take drinks. Excess amount of NaHCO<sub>3</sub> goes to blood and creates systemic alkalosis which causes Kidney diseases, anxiety, disturbances in inhalation and other complexities.
- NaHCO<sub>3</sub> also increases blood pressure. For this reason hypertensive patient should not take soft drinks.
- The cardiac patients who are suffering from Atherosclerosis, congestive heart failure and other cardiac diseases, they should not take soft drinks.
- Soft drinks reduce the therapeutic action of drugs which are used in the treatment of Tuberculosis, Malaria & Rheumatic arthritis etc.
- Due to lack of conception, we often take lemon or orange tasted cold drinks which decay the Enamel of our teeth.

It has found that eating or drinking sweets may decrease the production of the stress-related hormone glucocorticoid which has been linked to obesity and decreased



10. Skull -Defense minister
11. Head- Education minister
12. Eyes -Law minister

**Neha**  
(M.Sc. Botany 2<sup>nd</sup> Semester)

### **SECRETS THAT MATHEMATICS TEACH**

Add your friend's good habits subtract your enemies and bad habits. Multiply your joy and happiness, divide your sorrow and sadness and after all this, to make life beautiful.

With God as centre  
With love as radius  
Draw a circle of life  
Add comforts using  
Log table and formulae  
With this you will reside  
**HAPPY LIFE.**

**Shikha Sharma**  
(M.Sc. Maths 2<sup>nd</sup> Semester)

### **MEANING OF SCIENCE**

- S:** Solution for daily life problems.
- C:** Company of Knowledge.
- I:** Indispensable.
- E:** Eligibility to think.
- N:** Nature related.
- C:** Creative.
- E:** Endless.

**Karuna Sharma**  
(M.Sc. Maths 4<sup>th</sup> Semester)

### **SUPERMAN MEMORY CRYSTAL**

Copies of the Magna Carta, the Universal Declaration of Human Rights and the King James Bible have now been digitally stored on a piece of glass known as a "Superman memory crystal" that has the capacity to

save huge amounts of information for up to 13.8 billion years, researchers say.

Using a method of laser etching, researchers at the University of Southampton, in the United Kingdom, archived these documents, along with Isaac Newton's scientific treatise "Opticks," on coin-size pieces of glass. These tiny discs can survive for billions of years at temperatures of 374 degrees Fahrenheit (190 degrees Celsius). And at room temperature, they can last virtually forever, the researchers said.

"It is thrilling to think that we have created the technology to preserve documents and information and store it in space for future generations," Peter Kazansky, a Professor at the University's Optoelectronics Research Centre, said in a statement. This technology can secure the last evidence of our civilization; all we've learnt will not be forgotten.

Kazansky and his colleagues first reported their "5D data storage" in 2013 at the Conference on Lasers and Electro-Optics in San Jose, California. The researchers use femtosecond lasers, which are lasers that produce very short pulses, to inscribe information in nanostructured dots that are 5 micrometers apart. These nano-size etchings polarize light that travels through the glass. A combination of a polarizing lens and an optical microscope is all that is needed to "decode" the message, the researchers said. The 5D moniker refers to the 3D positioning of the nanostructures as well as their size and orientation.

In 2013, the researchers recorded a 300-kilobyte text file, but the capacity of a single glass data disc is 360 terabytes (1,000,000,000 kilobytes), they reported. The discs are stable up to 1,832 degrees F (1,000 degrees C).

Southampton researchers gave the copy of the Universal Declaration of Human Rights as a gift to the United Nations Educational Scientific and Cultural Organization

(UNESCO) in early February, part of the closing ceremony of that organization's Year of Light initiative. The scientists call the glass the "Superman memory crystal," a nod to memory crystals in the "Superman" films and comics. According to the university, the researchers are now seeking industry partners to further develop the technology.

**Ashish Kumar**  
(M.Sc. Chemistry 2<sup>nd</sup> Semester)

### WORLD WITHOUT SCIENCE

World without science,  
is a pearl without shine  
is a diamond without light  
And a mountain without height  
World without science,  
is a building without roof  
And finding without any proof  
World with science  
is a run without light,  
is a clouded high  
Without sight  
And a cinema with right

**Shashi Bala**  
(M.Sc. Chemistry 2<sup>nd</sup> Semester)

### CHEMISTRY RIDDLES

Helium walks into a bar, the bar tender says "We don't serve noble gasses in here."  
Helium doesn't react.  
Two chemists go into a restaurant. The first one says "I think I'll have an H<sub>2</sub>O."  
The second one says "I think I'll have an H<sub>2</sub>O too" -- and he died.  
The optimist sees the glass half full. The pessimist sees the glass half empty. The chemist sees the glass completely full, half in the liquid state and half in the vapor state.  
A neutron walks into a bar. He asks the bartender, "How much for a beer?" The

bartender offers him a warm smile and says, "For you, no charge".

As an ion chromatography chemist I made this one up: Anions aren't negative, they're just misunderstood.

Money has recently been discovered to be a not-yet-identified super heavy element.

The proposed name is: Un-obtainium.

Silver walks up to Gold in a bar and says, "AU, get out from here!"

**Indu Bala**  
(M.Sc. Chemistry 2<sup>nd</sup> Semester)

### EFFECT OF ENVIRONMENT ON CHROMOSOMES

Environmental factors like light, temperature injury etc. has marked influence on chromosome and thereby on the characters of an individual. For example, the color of man becomes fairer when he is transferred from hotter climate to a cooler one. But these changes due to change in environment are inherited only when there is change in the chromosomes. The son of the wrestler need not be a wrestler or having the same physical strength and the son of bald person can inherited the character of the baldness from his father because in the former cases the change in character was not due to change in the structure of chromosomes while in the later case baldness was due to change in chromosomes and thus inheritable.

**Pooja Sharma**  
(M.Sc. Chemistry 2<sup>nd</sup> Semester)

### HUMOUR OF PHYSICS

Once, all the scientists die and went to heaven. They decide to play Hide-n-Seek. Unfortunately Einstein is the one who has the den. He is supposed to count 100 and then start searching. Everyone start hiding except Newton. Newton just draws a square of meter and stands inside it in front of

Einstein counting 1, 2, 3.....100. He open his eyes and finds Newton standing in front. Einstein says, "Newton out, Newton out". But Newton denies and say, "I am not out, he claim that he is not Newton. All the scientists come out and Newton proved that he is not Newton, how.....???"

**Proof:** Newton says," I am standing in a square of area I am square....that means I am Newton per meter square. Hence I am Pascal not Newton. Newton per meter square means pascal. How's that!!!

**Manohar**  
(M.Sc. Physics 2<sup>nd</sup> Semester)

### LOVE IN CHEMISTRY LAB

Na chemistry hoti na main student hota,  
Na yeah lab hoti na yeah accident hota,  
Abhi practical main aayee nazar ek ladki,  
Sunder thi naak uski test tube jaisi,  
Baatin main uski glucose ki mithaas thi,  
Saanson main ether ki khushboo bhi sath  
thi,  
Aakhon se jhalkata tha kuch is tarah ka  
pyar,  
Bin piye hi ho jata tha alcohol ka khumar,  
Benzene se hota tha uski presence ka  
ehsaas,  
Andhere mein hota tha radium ka aabhaas,  
Nazrein mili, reaction hua,  
Kuch is tarah love ka production hua,  
Lagne lage uske ghar ke chakker aise,  
Nucleus ke chaaron taraf electron ho jaise,  
Us din hamarre test ka confirmation huwa,  
Jab uske daddy se hamara introduction  
huwa,  
Sunkar hamaari baat wo aisey bharak pare,  
Ignition tube mein jaise sodium bharak uthe.

**Pankaj**  
(M.Sc. Chemistry 2<sup>nd</sup> Semester)

### FIRST FLOWER GROWN IN SPACE (OR NOT)

"First ever flower grown in space makes its debut!"

With that declaration, NASA astronaut Scott Kelly revealed to the world the bright orange *Zinnias* that had blossomed on board the International Space Station in January, 2016.



"Yes, there are other life forms in space!" he exclaimed on Twitter from 250 miles (400Km) above the Earth. He even coined a hash tag: # space flower. Kelly, the space station's commander, had good reason to crow. Just a few weeks earlier, the zinnias, which are part of the NASA plant growth experiment "Veggie", had come close to dying due to a break out of mold. If it was not for a revised care plan by NASA botanists on the ground- and Kelly's own "green thumb" on orbit- there may not have been any flowers to tweet about.

But in conveying his excitement, Kelly made a mistake. His newly-bloomed zinnias were not the first flowers grown in space.

Four years ago, astronaut Don Pettit took it upon himself to grow a few different types of plants on board the station in what NASA labeled as a "personal biology experiment". Lacking the sophisticated growth chamber that would later launch as part of the Veggie study, Pettit used plastic bags as his pots.

In addition to growing zucchini and broccoli sprouts, Pettit also successfully cultivated a sunflower to blossom- and beyond.

**Pratibha Thakur**  
(M.Sc. Chemistry 2<sup>nd</sup> Semester)



## COLLISION QUARREL BETWEEN PHYSICS AND CHEMISTRY

One day Physics and Chemistry came from the opposite sides in the school campus. At one point in the gallery they collide with each other.

**Chemistry:** Hey you can't walk in the straight line.

**Physics:** This is not my fault; this is according to the law that opposite forces attracts each other. I was attracted toward you. That is why this happened.

**Chemistry:** You damn, I will destroy your face with concentrated Sulphuric Acid.

**Physics:** No no, if I wish, I will throw you with escape velocity and you will be out of this world. The mathematics was hearing them. He came forward and said, "You should walk in two parallel lines". Don't you know parallel lines never meet each other?

**Arti Devi**  
(M.Sc. Chemistry 2<sup>nd</sup> Semester)

# Law Section

## From Student Editor's Pen



Dear Readers,

I am very glad to be a part of Career Point University magazine “CP Pulse”. Law is very important to make society disciplined, full of values and ethics. Without law man is like a beast that will destroy humanity. In fact, this magazine has been drafted by following some rules and regulations. So we can say that law is our need. I would like to thank my teachers and editorial board who play crucial role to make this dream a reality and also provide me this opportunity. I appeal to all readers to read the magazine with full attention as it is the outcome of our countless efforts.

With kind regards.

**Arvind Mourya**  
**(BALLB 4<sup>th</sup> Semester)**

## RIGHTS OF AN ARRESTED PERSON

Every person has human rights including prisoners, given by our constitution. Everyone is equal in front of Law. No one can be treated as animal. The person who is arrested has some rights which remain available to him throughout the arrest. These rights have been laid down by the Apex Court of India, in **D.K. Basu vs State of West Bengal**, a case decided in 1997. These rights are as follow:

- 1. Identification of Police Personnel:** The police personnel carrying out the arrest should bear accurate, visible and clear identification and name tags with their designation.
- 2. Memo of Arrest:** It must be prepared at the time of making arrest. This memo shall be signed by atleast one witness who may be either a member of family of arrestee or friend.
- 3. Infortaion Regarding the Arrest:** A person who has been arrested or detained shall entitled to have one friend or relative interest in his welfare informed as early as possible.
- 4. Existence of Right:** As soon as person is arrested or detained, he shall be made aware of his right to inform a family member or friend.
- 5. Inspection Memos:** If arrestee so desires, he should be examined at the time of arrest and all injuries (major or minor) should also be noticed.
- 6.** The time & place of arrest of custody of an arrestee must be notified by the police where the next friend of the arrestee lives outside the town through the legal aid organisation in the district and the police station of the area concerned telegraphically within a period of 8 to 12 hours after the arrest.
- 7.** The arrestee should be examined by a trained doctor ,within 48 hours during his detention (arrest)

- 8.** Copies of all documents including the memo of arrest should be sent to the area magistrate for his record.
- 9.** The arrestee may be permitted to meet his lawyer during interrogation, though do not throughtout the interrogation.
- 10.** A police control room should be provided to all district and state head quarters where regarding arrest shall be communicated within 12 hours of arrest and the arrestee should have presented to the the magistrate within 24 hours of the arrest.

**Bibhuti Thakur**  
(BALLB 4<sup>th</sup> Semester)

## CHILD LABOURS

A succession of laws on child labour, the so-called Factory Acts, were passed in Britain in the 19th century. Children younger than nine were not allowed to work, those aged 9–16 could work 16 hours per day per Cotton Mills Act. In 1856, the law permitted child labour past age 9, for 60 hours per week, night or day. In 1901, the permissible child labour age was raised to 12. Early 20th century witnessed many home-based enterprises involving child labour. An example is shown above from New York, USA (1912). Child labour refers to the employment of children in any work that deprives children of their childhood, interferes with their ability to attend regular school, and that is mentally, physically, socially or morally dangerous and harmful. This practice is considered exploitative by many international organizations. Legislation across the world prohibits child labour. These laws do not consider all work by children as child labour; exceptions include work by child artists, family duties, supervised training, certain categories of work such as those by Amish children, some forms of child work common among indigenous American children, and others.

Child labour has existed to varying extents, through most of history. Before 1940, numerous children aged 5–14 worked in Europe, the United States and various colonies of European powers. These children mainly worked in agriculture, home-based assembly operations, factories, and mining and in services such as newsier. Some worked night shifts lasting 12 hours. With the rise of household income, availability of schools and passage of child labour laws, the incidence rates of child labour fell. In developing countries, with high poverty and poor schooling opportunities, child labour is still prevalent. In 2010, sub-saharan Africa had the highest incidence rates of child labour, with several African nations witnessing over 50 percent of children aged 5–14 working worldwide agriculture is the largest employer of child labour. Vast majority of child labour is found in rural settings and informal urban economy; children are predominantly employed by their parents, rather than factories. Poverty and lack of schools are considered as the primary cause of child labour. Globally the incidence of child labour decreased from 25% to 10% between 1960 and 2003, according to the World Bank. Nevertheless, the total number of child labourers remains high, with UNICEF and ILO acknowledging an estimated 168 million children aged 5–17.

**Susheela Kumari**  
(M.Sc. Chemistry 2<sup>nd</sup> Semester)

## FEMALE FOETICIDE

### What is Female Foeticide?

Female feticide is the selective abortion/elimination of the female child, done deliberately by the mother after the detection of child's gender through medical test. This is usually done under familial pressure from the husband or the in-laws or the even the women's parents.

### Reasons for Female Foeticide:

- **Social reason:** A typical traditional Indian family wishes that name continued which according to them can be done only through a son.
- **Legal reason:** The weak implementation of the laws.

**Laws Relating to Female Foeticide:** It also states that 'no person including the pre-natal diagnostic procedures shall communicate to the pregnant women concerned or her relatives or any other person the sex of foetus by words, signs or in any other manner' and 'no person shall by whatever means, cause or allow to be caused selection of sex before or after conception.'

**Effective Measures to Check Female Foeticide:** The Government has enacted the Pre-conception and Pre-natal Diagnostic Techniques (Prohibition of Sex Selection) Act, 1994 and also formed rules there under for prohibition for sex selection and prevention of misuse of pre-conception and pre-natal diagnostic techniques for sex determination before or after conception. Government has adopted a multi-pronged strategy entailing scheme and programs and awareness generation/advocacy measures to build a positive environment for the girl child through gender sensitive policies provisions and legislation.

**Shivani Sharma**  
(BALLB 4<sup>th</sup> Semester)

**चीन बनाम भारत में प्रत्यक्ष विदेशी  
निवेश की तुलना तथा नाभिकीय शक्ति-  
संपन्न होने की उपयोगिता :  
राइट टू रि कॉल समूह**

जब भी कोई देश FDI लाकर विदेशी कंपनियों को बुलाता है तो एक पॉलिसी तय करता है जिसके तहत ये निर्धारित होता है कि कोई भी

विदेशी कंपनी कितना मुनाफ़ा किन कंडीशनों को पूरा करने के बाद अपने देश ले जा सकती है। इस पॉलिसी को "Repatriation Policy" बोला जाता है।

जो भी तथाकथित बुद्धिजीवी FDI के बारे में इस तरह की बातें हम सबको पढ़ाते हैं कि चाईना को FDI लाने से बहुत फ़ायदा हुआ है इसलिये FDI भारत के लिये बहुत अच्छी है वो निम्नलिखित तथ्य हमसे धूर्ततापूर्वक छुपा जाते हैं कि-

1978 में जब चाईना ने FDI को अपने देश में लाया था तबतक वो पूरी तरह से परमाणु शक्ति संपन्न हो चुका था। भारत आज तक नहीं हुआ है। जब चीन पर अमेरिका इत्यादि का दबाव उसपर हुआ कि अपनी "Repatriation Policy" को इस तरह का बनाए जिससे कि अमेरिकी अथवा यूरोपियन कंपनियां मुनाफ़े का अधिक से अधिक पैसा अपने देश ले जा सकें, तो चाईना ने अमेरिका को धमकी दी कि वह साउदी अरब इत्यादि को परमाणु बम दे देगा। परिणामतः चाईना ने जो एफ़ डी आई लागू की उसकी "Repatriation Policy" यह थी कि कोई भी विदेशी कंपनी चाईना की जमीन पर उत्पादन करके जितना मुनाफ़ा उत्पादों को दूसरे देश जैसे भारत में निर्यात करके कमाएगी उससे भी कम ही अपने देश ले जा पाएगी।

**इससे चाईना को दो फ़ायदे हुए :-**

1) मान लो कि कोई विदेशी कंपनी चाईना में उत्पादन करके विदेशों में निर्यात करके 250 करोड़ डालर का मुनाफ़ा कमाती है। तो उससे भी कम यानि कि उदाहरणस्वरूप 26 करोड़ ही अपने देश ले जा सकेगी और बाकि के 2 करोड़ चाईना के "Foreign Exchange Reserve" में

जमा हो जाएंगे और चाईना को फ़ायदा होगा।

2) जब विदेशी कंपनी यह देखेगी कि वो मुनाफ़ा निर्यात से भी कम ले जा सकेगी, तो वो लेटेस्ट टेक्नोलोजी चाईना में लेकर आएगी ताकि चाईना में जो प्रोडक्ट बनाए उसे दुनिया भर में अधिक से अधिक निर्यात कर सके और अधिक से अधिक मुनाफ़ा कमाए। क्योंकि 20 करोड़ का मुनाफ़ा कमाने पर 18 करोड़ घर ले जा सकती है तो 80 करोड़ के मुनाफ़े पर 36 करोड़। और इस प्रकार चाईना में लेटेस्ट टेक्नोलोजी आएगी. चाईना का टेकनिकल डेवलपमेंट होगा।

जब चाईना के पास बहुत सा फ़ॉरेन एक्सचेंज रिसर्व जमा हो गया और बहुत नयी टेक्नोलॉजी आ गयी तब जाके उसने अपनी रिपार्टिएशन पॉलिसी को विदेशी कंपनियों के हक में कुछ ढीला किया।

**अब भारत में प्रत्यक्ष विदेशी निवेश की स्थिति:-**

चाईना के विपरीत भारत में जो एफ़ डी आई आई के लिये "Repatriation Policy" है उसमें विदेशी कंपनी को निर्यात के ज़रिए मुनाफ़ा कमाने की बाध्यता नहीं है वो भारत की जमीन पर उत्पादन करके भारत में भी जितना माल बेचेगी उसका फ़ायदा भी अपने देश ले जा सकती है और यह भारत सरकार की जिम्मेदारी है कि उस कंपनी को मुनाफ़ा अपने देश ले जाने के लिये डालर दे।

**इसके नुकसान :-**

जब बहुत सी विदेशी कंपनियां एक साथ मुनाफ़ा ले जाना चाहेंगी जिसको "Mass Repatriation" बोलते हैं तो भारत के फ़ॉरेन एक्सचेंज रिसर्व पर दबाव आएगा और इसके फ़लस्वरूप भारत सरकार को लोगों पर तरह तरह के नये नये टैक्स लगाने पड़ेगे और स्वदेशी कंपनियों पर बहुत

दबाव आएगा और उनको अपने बहुत से लोगों को नौकरी से निकाल देना पड़ेगा जिससे देश में दरिद्रता और बेरोजगारी फैलेगी और कुल मिलाकर भारत का पैसा विदेश जाएगा और भारत गरीब होगा। चूँकि विदेशी कंपनियों को भारत में निर्यात से मुनाफ़ा कमाने की बाध्यता भी नहीं है, इस्लिये ये भारत में घिसी पिटी टेक्नोलॉजी ही लेकर आएगी और भारत में उत्पाद बेच कर प्राफ़िट ले जाएगी और भारत में नयी टेक्नोलॉजी नहीं आएगी।

यहां ये विचार करने वाली बात है कि चाईना अपनी "Repatriation Policy" इतनी अच्छी क्यों बना सका और भारत को इतनी बेकार "Repatriation Policy" क्यों बनानी इसका उत्तर है कि चाईना ने जब FDI लायी तो वो परमाणु शक्ति संपन्न था और अमेरिका इत्यादि को इस बात की धमकी दे सकता था कि अमेरिका के शत्रुओं को परमाणु बम दे देगा। जबकि अपरिपक्व स्थितियों तथा राजनेताओं द्वारा भारत में FDI लायी जबकि वो परमाणु शक्ति संपन्न नहीं था और आज भी नहीं है। इस्लिये अमेरिका के दबाव में आ गया और विदेशी कंपनियां भारत की सरकार पर दबाव बनाकर देश में ऐसे हालात बनवाए रखती हैं जिसमें ईसाईयत फैल सके जबकि चाईना हथियारों के क्षेत्र में सक्षम होने के कारण विदेशी कंपनियों की नाक में नकेल डाले रखता है।

क्या आप जानते हैं, भारत में राजनैतिक, न्यायिक सिस्टम में सुधार लाने के लिए हमें कानून-व्यवस्था में ही सुधार लाने की आवश्यकता है और ये कार्य केवल और केवल

जनता के माध्यम से जन-आन्दोलन के माध्यम से ही संभव है।

भारत में स्वदेशी उद्योगों की उत्पादकता एवं गुणवत्ता में सुधार के लिए आप इस लिंक में दिए हुए तमाम कानून-प्रोपोज़ल्स का अध्ययन कर अपने सांसदों, विधायकों, नेताओं, राष्ट्रपति, प्रधानमन्त्री को SMS, ईमेल, पोस्टकार्ड इत्यादि सभी संचार माध्यमों द्वारा अपना सांविधानिक आदेश भेजकर उनको कानून-सुधार लाने का दबाव बना सकते हैं।

**Arvind Mourya**  
(BALLB 4<sup>th</sup> Semester)

### **CRIMINAL AMENDMENT ACT 2013**

Section 370 of Indian Penal Code (IPC) has been substituted with new sections, 370 and 370A which deal with trafficking of person for exploitation. If a person (a) recruits, (b) transports, (c) harbours, (d) transfers, or (e) receives, a person, by using threats, or force, or coercion, or abduction, or fraud, or deception, or by abuse of power, or inducement for exploitation including prostitution, slavery, forced organ removal, etc. will be punished with imprisonment ranging from at least 7 years to imprisonment for the remainder of that person's natural life depending on the number or category of persons trafficked. Employment of a trafficked person will attract penal provision as well.

The most important change that has been made is the change in definition of rape under IPC. Although the Ordinance sought to change the word *rape* to sexual assault, in the Act the word 'rape' has been retained in Section 375, and was extended to include acts in addition to vaginal penetration. The definition is broadly worded with acts like penetration of penis, or any object or any

part of body to any extent, into the vagina, mouth, urethra or anus of another person or making another person do so, apply of mouth or touching private parts constitutes the offence of sexual assault. The section has also clarified that penetration means "penetration to any extent", and lack of physical resistance is immaterial for constituting an offence. Except in certain aggravated situations the punishment will be imprisonment not less than seven years but which may extend to imprisonment for life, and shall also be liable to fine. In aggravated situations, punishment will be rigorous imprisonment for a term which shall not be less than ten years but which may extend to imprisonment for life, and shall also be liable to fine.

A new section, 376A has been added which states that if a person committing the offence of sexual assault, "inflicts an injury which causes the death of the person or causes the person to be in a persistent vegetative state, shall be punished with rigorous imprisonment for a term which shall not be less than twenty years, but which may extend to imprisonment for life, which shall mean the remainder of that person's natural life, or with death." In case of "gang rape", persons involved regardless of their gender shall be punished with rigorous imprisonment for a term which shall not be less than twenty years, but which may extend to life and shall pay compensation to the victim who shall be reasonable to meet the medical expenses and rehabilitation of the victim. The age of consent in India has been increased to 18 years, which means any sexual activity irrespective of presence of consent with a woman below the age of 18 will constitute statutory rape.

Certain changes has been introduced in the IPC and Evidence Act, like the process of recording the statement of the victim has been made more victim friendly and easy

but the two critical changes are: **1).** the 'character of the victim' is now rendered totally irrelevant, and **2).** there is now a presumption of 'no consent' in a case where sexual intercourse is proved and the victim states in the court that she did not.

**Liza**  
**(BALLB 4<sup>th</sup> Semester)**

### **PREAMBLE**

These are the opening words of the preamble of the Indian Constitution.

“WE, THE PEOPLE OF INDIA, having solemnly resolved to constitute India into a SOVEREIGN SOCIALIST SECULAR DEMOCRATIC REPUBLIC and to secure to all its citizens:

**JUSTICE**, social, economic and political;

**LIBERTY** of thought, expression, belief, faith and worship;

**EQUALITY** of status and of opportunity; and to promote among them all;

**FRATERNITY** assuring the dignity of the individual and the unity and integrity of the Nation;

IN OUR CONSTITUENT ASSEMBLY this twenty-sixth day of November, 1949, do HEREBY ADOPT, ENACT AND GIVE TO OURSELVES THIS CONSTITUTION”.

**Amit**  
**(BALLB 4<sup>th</sup> Semester)**

### **SYSTEM OF ELECTIONS IN LOK SABHA**

Members of the Lok Sabha are directly elected by the people of India, on the basis of Universal Suffrage. For the purpose of holding direct elections to Lok Sabha; each state is divided into territorial constituencies. In this respect, the constitution of India makes the following two provisions:

- ☑ Each state is allotted a number of seats in the Lok Sabha in such a manner that the ratio between that number and its population is same for all the states of India. This provision does not apply for states having a population of less than 6 million (60 Lakhs).
- ☑ Each state is divided into territorial constituencies in such a manner that the ratio between the population of each constituency and the number of seats allotted to it remain the same throughout the state.

**Note:** The expression population here refers to the population ascertained at the preceding census (2001 Census) of which relevant figure have been published.

**Vicky Bohemia**  
(BALLB 4<sup>th</sup> Semester)

### HINDU VIEW OF MARRIAGE

According to Hinduism, marriage is a sacred relationship. In some Hindu systems of marriage, there is no role for the state as marriage remained a private affair within the social realm. Within this traditional framework reference, marriage is undoubtedly the most important transitional point in a Hindu's life and the most important of all the Hindu "sanskaras" (life-cycle rituals).

Therefore there was fierce religious opposition to enacting such laws for marriage, succession and adoption. The greatest opposition was to the provision of divorce, something which was to the last degree anathema to the Hindu religion. Also resisted was the idea of equal inheritance by sons and daughters (male and female heirs), regardless of whether the daughter was married or unwed. This was against the Hindu view of family, where married daughters were regarded as belonging to the family of their husband, not to the family of their father.

Some have argued that Hindu marriage cannot be subjected to legislative intervention. Derrett predicted in his later writings that despite some evidence of modernization, the dominant view in Hindu society for the foreseeable future would remain that marriage is a form of social obligation.

**Deepak**  
(BALLB 4<sup>th</sup> Semester)

### COMPANY LAW

The rules for corporations derive from two sources. The law will set out which rules are mandatory, and which rules can be derogated from. Examples of important rules which cannot be derogated from would usually include how to fire the board of directors, what duties directors owe to the company or when a company must be dissolved as it approaches bankruptcy. Examples of rules that members of a company would be allowed to change and choose could include, what kind of procedure general meetings should follow, when dividends get paid out, or how many members (beyond a minimum set out in the law) can amend the constitution. Usually, the statute will set out model articles, which the corporation's constitution will be assumed to have if it is silent on a bit of particular procedure. The United States, and a few other common law countries, split the corporate constitution into two separate documents (the UK got rid of this in 2006). The memorandum of Association (or articles of incorporation) is the primary document, and will generally regulate the company's activities with the outside world. It states which objects the company is meant to follow (e.g. "this company makes automobiles") and specifies the authorized share capital of the company. The articles of association (or by-laws) is the secondary document, and will generally regulate the

company's internal affairs and management, such as procedures for board meetings, dividend entitlements etc.

**Reena**  
(BALLB 4<sup>th</sup> Semester)

### **SUPREME COURT**

The Supreme Court of India is the highest judicial forum and final court of appeal under the Constitution of India, the highest constitutional court, with the power of constitutional review.

It comprises the Chief Justice of India and 30 other judges. It has original, appellate and advisory jurisdictions.

As the final court of appeal of the country, it takes up appeals primarily against verdicts of the High Courts of various States of the Union and other courts and tribunals.

The Supreme Court has extensive original jurisdiction for the protection of fundamental rights of citizens. It also acts as the court to settle disputes between various governments in the country. As an advisory court, it hears matters which may specifically be referred to it under the Constitution by the President of India. It also may take cognizance of matters on its own (*or 'suo Moto'*), without anyone drawing its attention. It was first set up in Calcutta for administration of justice.

The law declared by the Supreme Court becomes binding on all courts within India.

**Jyoti**  
(BALLB 4<sup>th</sup> Semester)

### **INDIAN INDEPENDENCE ACT**

The Indian Independence Act 1947 was an Act of the Parliament of the United Kingdom that partitioned British India into the two new independent dominions of India and Pakistan. The Act received the royal assent on 18 July 1947, and Pakistan came into being on 15 August at the same

time as Indian independence. However, due to Mountbatten's need to be in New Delhi for the transfer of power, Pakistan celebrated its formation a day ahead on 14 August 1947 to enable the viceroy Lord Mountbatten to attend both events.

The legislation was formulated by the government of Prime Minister Clement Attlee and the Governor General of India Lord Mountbatten, after representatives of the Indian National Congress, the Muslim League, and the Sikh community came to an agreement with the Viceroy of India, Lord Mountbatten of Burma, on what has come to be known as *the 3 June Plan* or *Mountbatten Plan*. This plan was the last plan for independence.

**Kamini**  
(BALLB 4<sup>th</sup> Semester)

### **JUDICIAL REVIEW**

Judicial review can be understood in the context of two distinct—but parallel—legal systems, civil law and common law, and also by two distinct theories of democracy regarding the manner in which government should be organized with respect to the principles and doctrines of legislative supremacy and the separation of powers. First, two distinct legal systems, civil law and common law, have different views about judicial review. Common-law judges are seen as sources of law, capable of creating new legal principles, and also capable of rejecting legal principles that are no longer valid. In the civil-law tradition, judges are seen as those who apply the law, with no power to create (or destroy) legal principles. Secondly, the idea of separation of powers is another theory about how a democratic society's government should be organized. In contrast to legislative supremacy, the idea of separation of powers was first introduced by Montesquieu; it was later institutionalized in the United States by

the Supreme Court ruling in *Mercury v. Madison* under the court of John Marshall. Separation of powers is based on the idea that no branch of government should be able to exert power over any other branch without due process of law; each branch of government should have a check on the powers of the other branches of government, thus creating a regulative balance among all branches of government. The key to this idea is checks and balances. In the United States, judicial review is considered a key check on the powers of the other two branches of government by the judiciary.

**Shalini**  
(BALLB 4<sup>th</sup> Semester)

### **NON-GOVERNMENT ORGANISATION**

A non-governmental organization (NGO) is an organization that is neither a part of a government nor a conventional for-profit business. Usually set up by ordinary citizens, NGOs may be funded by governments, foundations, schools, businesses, or private people. Some avoid formal funding altogether and are run primarily by volunteers. NGOs are highly diverse groups of organizations engaged in a wide range of activities, and take different forms in different parts of the world. Some may have charitable status, while others may be registered for tax exemption based on recognition of social purposes. Others may be fronts for political, religious, or other interests. The number of NGOs in the United States is estimated at 1.5 million. Russia has 277,000 NGOs. India is estimated to have had around 2 million NGOs in 2009, just over one NGO per 600 Indians, and many times the number of primary schools and primary health centres in India. NGOs are difficult to define, and the term 'NGO' is not always used

consistently. In some countries the term NGO is applied to an organization that in another country would be called an NPO (nonprofit organization), and vice-versa. There are many different classifications of NGO in use. The most common focus is on "orientation" and "level of operation". An NGO's orientation refers to the type of activities it takes on. These activities might include human rights, environmental, improving health, or development work. An NGO's level of operation indicates the scale at which an organization works, such as local, regional, national, or international.

**Shalu**  
(BALLB 4<sup>th</sup> Semester)

### **JUDICIAL SEPARATION**

Legal separation (sometimes "judicial separation", "separate maintenance", "divorce *a mensa et thoro*", or "divorce from bed-and-board") is a legal process by which a married couple may formalize a *de facto* separation while remaining legally married. A legal separation is granted in the form of a court order. Furthermore, in cases where children are involved, a court order of legal separation often makes temporary arrangements for the care, custody, and financial support of the children ("for the time being"). Thus, part of the court order determines child custody. Some couples obtain a legal separation as an alternative to a divorce, based on moral or religious objections to divorce. Legal separation does not automatically lead to divorce. The couple might reconcile, in which case they do not have to do anything in order to continue their marriage. If the two do not reconcile, and they wish to proceed with a divorce, they must file for divorce explicitly.

**Deepak**  
(BALLB 4<sup>th</sup> Semester)

## COMPULSORY INSURANCE OF MOTOR VEHICLE OR ACT LIABILITY INSURANCE

A motor vehicle in a public place is potentially a dangerous and lethal instrument. Even when it is without its engine or without petrol, if it is moved down on an incline even unintentionally it can cause considerable damage and human injury. Hence, unlike other properties which may be insured or not at the option of the owner, a motor vehicle is required by law to be insured in respect of the user's liability for death, bodily injury or damage to property of third party. As sometimes the driver of the vehicle is often a person of small means and injured person goes without adequate compensation, insurance of motor vehicle covering the third party risk is made compulsory in India and the Motor Vehicles Act provides that, vehicle should not be used in public place without having insurance policy covering third party risks. Third party risk means risk covered for bodily injury, death and damage of property of third party. Third party means any person except owner or passenger in the private vehicle. So pillion rider of the motor cycle, passengers in private cars, jeeps etc. are not third party. However, passengers in public vehicle such as bus. Contract carriage vehicle, taxi etc. are also third party and hence covered by third party or statutory policy.

Arvind  
(BALLB 4<sup>th</sup> Semester)

### FUNDAMENTAL RIGHTS

- **Right to Equality:** includes equality before law, prohibition of discrimination on grounds of religion, race, caste, gender or place of birth, and equality of opportunity in matters of employment, abolition of untouchability and abolition of titles.

- **Right to Freedom:** includes freedom of speech and expression, assembly, association or union or cooperatives, movement, residence, and right to practice any profession or occupation (some of these rights are subject to security of the State, friendly relations with foreign countries, public order, decency or morality), right to life and liberty, protection in respect to conviction in offences and protection against arrest and detention in certain cases.
- **Right Against Exploitation:** prohibits all forms of forced labour, child labour and traffic of human beings
- **Right to Freedom of Religion:** includes freedom of conscience and free profession, practice, and propagation of religion, freedom to manage religious affairs, freedom from certain taxes and freedom from religious instructions in certain educational institutes.
- **Cultural and Educational Rights:** Preserve the right of any section of citizens to conserve their culture, language or script, and right of minorities to establish and administer educational institutions of their choice.
- **Right to constitutional remedies:** Which is present for enforcement of Fundamental Rights?

Vikas  
(BALLB 4<sup>th</sup> Semester)

### DIRECTIVE PRINCIPLES OF STATE POLICY

The concept of Directive Principles of State Policy was borrowed from the Irish Constitution. The makers of the Constitution of India were influenced by the Irish nationalist movement. Hence, the Directive Principles of the Indian constitution have been greatly influenced by the Directive Principles of State Policy. The

idea of such policies "can be traced to the Declaration of the Rights of Man proclaimed by Revolutionary France and the Declaration of Independence by the American Colonies." The Indian constitution was also influenced by the United Nations Universal Declaration of Human Rights.

In 1919, the Rowlatt Acts gave extensive powers to the British government and police, and allowed indefinite arrest and detention of individuals, warrant-less searches and seizures, restrictions on public gatherings, and intensive censorship of media and publications. The public opposition to this act eventually led to mass campaigns of non-violent civil disobedience throughout the country, demanding guaranteed civil freedoms, and limitations on government power. Indians, who were seeking independence and their own government, were particularly influenced by the independence of Ireland and the development of the Irish constitution. Also, the directive principles of state policy in the Irish Constitution were looked upon by the people of India as an inspiration for the independent India's government to comprehensively tackle complex social and economic challenges across a vast, diverse nation and population.

In 1928, the Nehru Commission composing of representatives of Indian political parties proposed constitutional reforms for India that apart from calling for dominion status for India and elections under universal suffrage, would guarantee rights deemed fundamental, representation for religious and ethnic minorities, and limit the powers of the government. In 1931, the Indian National Congress (the largest Indian political party of the time) adopted resolutions committing itself to the defense of fundamental civil rights, as well as socio-economic rights such as the minimum wage and the abolition of untouchability and

serfdom. Committing themselves to socialism in 1936, the Congress leaders took examples from the constitution of the erstwhile USSR, which inspired the fundamental duties of citizens as a means of collective patriotic responsibility for national interests and challenges.

When India obtained independence on 15 August 1947, the task of developing a constitution for the nation was undertaken by the Constituent Assembly of India, composing of elected representatives under the presidency of Dr. Rajendra Prasad. While members of Congress composed of a large majority, Congress leaders appointed persons from diverse political backgrounds to responsibilities of developing the constitution and national laws. Notably, Bhimrao Ramji Ambedkar became the chairperson of the drafting committee, while Jawaharlal Nehru and Sardar Vallabhbhai Patel became chairpersons of committees and sub-committees responsible for different subjects. A notable development during that period having significant effect on the Indian constitution took place on 10 December 1948 when the United Nations General Assembly adopted the Universal Declaration of Human Rights and called upon all member states to adopt these rights in their respective constitutions.

**Liza**  
**(BALLB 4<sup>th</sup> Semester)**

## **CONSUMER PROTECTION**

### **Jurisdiction of District Forum**

- Subject to the other provisions of this Act, the District Forum shall have jurisdiction to entertain complaints where the value of the goods or services and the compensation, if any, claimed does not exceed rupees twenty lakhs.
- A complaint shall be instituted in a District Forum within the local limits of whose jurisdiction:-

- 
- a) the opposite party or each of the opposite parties, where there are more than one, at the time of the institution of the complaint, actually and voluntarily resides or carries on business or has a branch office or personally works for gain, or
  - b) any of the opposite parties, where there are more than one, at the time of the institution of the complaint, actually and voluntarily resides, or carries on business or has a branch office, or personally works for gain, provided that in such case either the permission of the District Forum is given, or the opposite parties who do not reside, or carry on business or have a branch office, or personally work for gain, as the case may be, acquiesce in such institution; or
  - c) the cause of action, wholly or in part, arises.

**Jurisdiction of State Commission:** Subject to the other provisions of this Act, the State Commission shall have jurisdiction:

- a) – to entertain
  - complaints where the value of the goods or services and compensation, if any, claimed exceeds rupees twenty lakhs but does not exceed rupees one crore (R10 million); and
  - appeals against the orders of any District Forum within the State; and
- b) – to call for the records and pass appropriate orders in any consumer dispute which is pending before or has been decided by any District Forum within the State, where it appears to the State Commission that such District Forum has exercised a jurisdiction not vested in it by law, or has failed to exercise a jurisdiction so vested or has acted in exercise of its jurisdiction illegally or with material irregularity.

**Arjun**  
**(BALLB 4<sup>th</sup> Semester)**

# First Positions in Academics



Shikha Rani  
M.Sc. (Chemistry)  
1<sup>st</sup> Semester



Kamini Dhiman  
M.Sc. (Chemistry)  
3<sup>rd</sup> Semester



Kumari Sneha  
M.Sc. (Mathematics)  
1<sup>st</sup> Semester



Sumita Kumari  
M.Sc. (Mathematics)  
3<sup>rd</sup> Semester



Chand Vishaka  
M.Sc. (Botany)  
1<sup>st</sup> Semester



Rajneesh Kumari  
M.Sc. (Botany)  
3<sup>rd</sup> Semester



Rajni Sharma  
M.Sc. (Physics)  
1<sup>st</sup> Semester



Divya Jyoti  
M.Sc. (Physics)  
3<sup>rd</sup> Semester



Sanjana Chauhan  
B.Sc. (Hons) Chemistry  
1<sup>st</sup> Semester



Jyoti  
B.Sc. (Hons) Maths  
3<sup>rd</sup> Semester



Ankur Sharma  
MBA  
1<sup>st</sup> Semester



Vandna Thakur  
MBA  
3<sup>rd</sup> Semester



Abhishek Katna  
BBA  
1<sup>st</sup> Semester



Abhishek Katna Thakur  
BBA  
3<sup>rd</sup> Semester



Sonia  
BBA  
5<sup>th</sup> Semester



Naina Sharma  
BALLB  
1<sup>st</sup> Semester



Reena Devi  
BALLB  
3<sup>rd</sup> Semester



Neeru Devi  
B.Com.  
1<sup>st</sup> Semester



Tacha Muri  
B.Com.  
3<sup>rd</sup> Semester



Heena Kumari  
MCA  
1<sup>st</sup> Semester



Upesh Chauhan  
BCA  
1<sup>st</sup> Semester



Shivali  
M.Tech. (ECE)  
1<sup>st</sup> Semester



Arun Kumar  
M.Tech. (ECE)  
3<sup>rd</sup> Semester



Vinesh Kumari  
M.Tech. (CSE)  
1<sup>st</sup> Semester



Meenakshi Rana  
M.Tech. (CSE)  
3<sup>rd</sup> Semester



Pallavi  
M.Tech. (CE)  
1<sup>st</sup> Semester



Raman Kumar Sharma  
M.Tech. (CE)  
3<sup>rd</sup> Semester



Ravi Kant Badhwa  
M.Tech. (ME)  
1<sup>st</sup> Semester



Ajay Kumar  
B.Tech. (ME)  
1<sup>st</sup> Semester



Sachin Dogra  
B.Tech. (ME)  
3<sup>rd</sup> Semester



Navjot Sharma  
B.Tech. (ME)  
5<sup>th</sup> Semester



Rajat Chauhan  
B.Tech. (ME)  
7<sup>th</sup> Semester



Prince Rao  
B.Tech. (CE)  
1<sup>st</sup> Semester



Shubham Sharma  
B.Tech. (CE)  
3<sup>rd</sup> Semester



Bhanu Sharma  
B.Tech. (CE)  
5<sup>th</sup> Semester



Shalini Bhardwaj  
B.Tech. (CE)  
7<sup>th</sup> Semester



Chhaya  
B.Tech. (ECE)  
5<sup>th</sup> Semester



Vivek kumar  
B.Tech. (ECE)  
7<sup>th</sup> Semester



Ashima Sharma  
B.Tech. (CSE)  
1<sup>st</sup> Semester



Diksha Sharma  
B.Tech. (CSE)  
3<sup>rd</sup> Semester



Ritika  
B.Tech. (CSE)  
5<sup>th</sup> Semester



Monika Sharma  
B.Tech. (CSE)  
7<sup>th</sup> Semester

# Campus Placement-2016



Shoban Choudhary  
B.Tech. (ME)  
LINTECH ELECTRIC



Ankesh Chauhan  
B.Tech. (ME)  
LINTECH ELECTRIC



Rajat Sharma  
B.Tech. (ME)  
LINTECH ELECTRIC



Suraj Sharma  
B.Tech. (ME)  
LINTECH ELECTRIC



Rajat Chauhan  
B.Tech. (ME)  
LINTECH ELECTRIC



Ravi kant  
B.Tech. (ME)  
LINTECH ELECTRIC



Vishal Sharma  
B.Tech. (ME)  
LINTECH ELECTRIC



Chetan Bhardwaj  
B.Tech. (ME)  
LINTECH ELECTRIC



Ankush Thakur  
B.Tech. (ME)  
LINTECH ELECTRIC



Pankaj Mahil  
B.Tech. (CE)  
LINTECH ELECTRIC



Pradeep Kanwar  
B.Tech. (CE)  
LINTECH ELECTRIC



Rahul Chopra  
B.Tech. (CE)  
LINTECH ELECTRIC



Sarita  
M.Sc. (Chemistry)  
TGT PATHANKOT



Kamini Dhiman  
M.Sc. (Chemistry)  
MACLEODS PHARMA



Ankita Sharma  
B.Tech. (CSE)  
MANSA INFOTECH



Gaurav Kango  
B.Tech. (CE)  
ALLONLINE GROUP



Manish Kumar  
B.Tech. (CE)  
ALLONLINE GROUP



Vandana Thakur  
MBA  
ALLONLINE GROUP



Sumit Kumar  
MBA  
ALLONLINE GROUP



Subham Katna  
B.Tech. (CSE)  
ALLONLINE GROUP



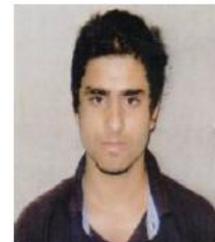
Virender Singh  
B.Tech. (CE)  
ALLONLINE GROUP



Vikush Sharma  
B.Tech. (CE)  
ALLONLINE GROUP



Manish Kumar  
B.Tech. (ME)  
SATYAM TECH



Rajat Singh  
B.Tech. (CE)  
SATYAM TECH



Dev Raj  
M.Tech. (ME)  
LINTECH ELECTRIC

# NSS Volunteers Serving the Society



# Economic Section

## From Student Editor's Pen



Dear Readers,

It is a great pleasure for me to present the “**Economic Section**” of University Magazine “**CP Pulse**”. Economics has been playing a very significant role in our daily life. An educated person is expected to be aware of the current trends in global as well as national economy. Never before has the awareness of the subject been so acutely felt as in the present times. In this subject we deal with foreign trades, investment & saving, budget and factors of production. In this section you will find some articles on such issues.

It is a new experience for me to undertake this responsibility. I am thankful to Staff Editor **Dr. L.R. Verma** who assigned me this unique opportunity.

I am also thankful to all those students, who contributed to this section.

Best Wishes for Future...!!!

**Navjot Sharma**  
(MBA 4<sup>th</sup> Semester)

## CAPITAL GEARING

The term capital gearing normally refers to the proportion between the fixed interest or dividend bearing funds and non-fixed interest or dividend bearing funds. The former includes funds supplied by debenture holders, preference share holders and latter includes equity shareholders fund, including reserves and surpluses. Capital Gearing Ratio = Equity Share Capital / Fixed Interest Bearing Funds. This ratio mainly used to analyze the capital structure of a company. The capital gearing ratio shows the mix of finance employed in the business. It indicates the proportion between owners' fund and non owners' fund. This proportion is by definition known as capital leverage. If the ratio is low, the gearing is said to be low and if the ratio is high, the capital gearing is said to be high. In other words, a company is said to be in high-gear when it has proportionately higher/large issue of debenture and preference shares for raising the long term resources, whereas low-gear stands for proportionately large issue of equity shares. The term helps in deciding the capital structure of company.

**Dr. Manish khanna**  
**Associate Professor & HOD**  
**School of Commerce & Management**

## TAXATION

Taxation has continued to be one of the most important sources of revenue for both central and state government of India. Further both the layer of government have depended more on indirect taxation especially in view of the low per capital income of masses. Direct and indirect taxes are the primary source of revenue of the country. The tax revenue is utilized to enhance the developmental need of country and its people by way of public expenditure. The direct taxes cover the income tax and corporate tax. Indirect taxes are mainly

levied a part of production and distribution in the form of excise tax and also custom duty import on materials or goods imported in the country and Value added taxes. Taxation policy is one of the important instruments in the hand of government to decide the direction of economic growth. The taxation policy decided by the government becomes instrument to decide the mode of investment or disinvestment for individual investor as well as corporate investor.

Taxes are broadly divided into two-direct and indirect. Direct taxes are those in which burden of tax cannot be shifted from the person on whom it has been levied like income tax, property tax, wealth tax etc. Indirect taxes are those in which burden of tax can be shifted like sale tax, excise duty, entertainment tax etc. Indirect taxes play a very important role in the finance of under developed countries. The structure of indirect taxation in these countries has to be fashioned with the some objectives on direct taxation. It must be such as to raise the rate of capital formation in the economy while providing revenue for public consumption and investment.

Structure of indirect taxation must be so fashioned as to achieve certain important objectives. There are to raise revenue especially from those who cannot be reached through direct taxes, to curtail the consumption of luxuries, and to retrain a rapid increase in mass consumption of non-necessaries.

**Dr. Manish khanna**  
**Associate Professor & HOD**  
**School of Commerce & Management**

## FINANCIAL LITERACY IN INDIA

Government of India has recognized the importance of spreading financial literacy to intensify efforts to channelize domestic



savings to investments. However, increasing range and complexity of products has made it very difficult for an ordinary person to take an informed decision. Financial literacy develops confidence, Knowledge and skills to manage financial products and services enabling them to have more control of their present and future circumstances. Financial literacy will also help in protecting society and individuals against exploitative financial schemes and exorbitant interest rate charged by money lenders. It is expected that financial education can lead to multiplier effects in the economy. A well educated household would resort to regular savings which in turn would lead to investment in right channels and income generation. Thus, the financial well being of individuals will in turn increase the welfare

**Manoj Dhiman**  
(MBA 4<sup>th</sup> Semester)

## **EVOLUTION OF ECONOMICS**

Economics is the social science that analyzes the production, distribution and consumption of goods and services. The term economics comes from the ancient Greek word Oikonomia i.e. “management of a household, administration”. Current economic models emerged from the broader field of political economy in the late 19<sup>th</sup> century. A primary stimulus for the development of modern economics was the desire to use an empirical approach more akin to the physical science.

Economics aims to explain how it works and how its agents interact. Economics analysis is applied throughout society, in business, finance and government, but also in crime, the family health, law politics religious, social institute, war and science. At the turn of the 21<sup>st</sup> century the expanding domain of economics in the social has been described as economics imperialism.

Common distinctions are between various dimensions of economics. The Primary textbook distinction is between micro economics which examines the behavior of basic elements in the economy including individual markets and agents in the economy, and macro economics which address issues affecting an entire economy including unemployment, inflation economic growth and monetary and fiscal policy. Other distinction include between positive economics (describing: what is) and normative economics (advocating “what ought to be”) between economics theory and applied economics and between rational and behavioral economics.

Economics should be applied by use in life. Its term should be supplied by us in life. We should follow its law of increasing returns in life; never follow its constant and decreasing returns in life.

**Mukesh**  
(MBA 4<sup>th</sup> Semester)

## **CAREER IN COMMERCE & MANAGEMENT**

Commerce is the most popular academic choice in India and is one of the three central Academic Streams, the other two being Humanities and Science. While pursuing a course in this field, one acquires knowledge related to corporate finance, stock market and the inner financial functioning of various profit, and non-profit institutions and the economy. On the whole, the concept of trade and commerce consists of a wide range of interdisciplinary branches such as Accountancy, Business Administration E-commerce, Economics, Taxation Laws, etc.

Since the Indian economy is one of fastest growing economies in the world, the need for gifted specialists who can add to the economic growth of the country. There are

different courses given below in field of commerce & management:

**List of courses:**

1. B.Com.–Bachelor of Commerce
2. BMS–Bachelor of Management Studies
3. BBS–Bachelor of Business Management
4. BBM–Bachelor of Business Management
5. M.Com.–Master of Commerce
6. MBA–Master in Business Administration

**Professional courses:**

1. C.A–Chartered Accountancy
2. C.S.–Company Secretary
3. CWA–Cost and Works Accountant

**Top Colleges Offering Undergraduate Courses**

1. Shri Ram College of Commerce (Delhi)
2. Loyola College (Chennai)
3. Stella Moris (Chennai)
4. Mop Vaishnav (Chennai)
5. Symbiosis University (Pune)
6. Christ University (Bangalore)
7. St. Joseph's (Bangalore)
8. Jain University (Bangalore)
9. B.M College (Pune)
10. Amity University (Delhi)

**Vijay Kumar**  
(MBA 4<sup>th</sup> Semester)

**VALUE OF HUMAN CAPITAL**

Engineers and Scientists will never make as much money as business executives. Now a rigorous mathematical proof that explains why this is true is as follows:

**Postulate 1:** Knowledge is Power

**Postulate 2:** Time is Money.

As every engineer knows

$$\text{Work/time} = \text{Power}$$

Since, Knowledge = Power  
and Time = Money, we have

$$\text{Work/Money} = \text{Knowledge}$$

Solving for money, we get,

$$\text{Work/Knowledge} = \text{Money}$$

Thus, as knowledge approaches zero money approaches infinity regardless of the work done.

**Amit Sharma**  
(MBA 4<sup>th</sup> Semester)

**BUDGET 2016-17**

Affirming that the economy is right on track, Finance Minister Arun Jaitley presented the Union Budget for 2016-17. Citing that the Consumer Price Index (CPI) inflation has come down to 5.4% from 9 plus, he said it is huge relief for the public. Main highlights of the Budget 2016-17 are given below:

**Tax:**

- ❖ Infrastructure and agriculture cess to be levied.
- ❖ Excise duty raised from 10 to 15% on tobacco products.
- ❖ 1% service charge on purchase of luxury cars over Rs. 10 lakh and in-cash purchase of goods and services over Rs. 2 lakh.
- ❖ SUVs, Luxury cars to be more expensive (4% high capacity tax for SUVs).
- ❖ Companies with revenue less than Rs. 5 crore to be taxed at 29% plus surcharge.
- ❖ Limited tax compliance window from June 1–Sep. 30 for declaring undisclosed income at 45% including surcharge and penalties.
- ❖ Excise 1% imposed on articles of jewellery, excluding silver.
- ❖ 0.5% Krishi Kalyan Cess to be levied on all services.
- ❖ Pollution cess of 1% on small petrol, LPG and CNG cars; 2.5% on diesel cars of certain specifications; 4% on higher-end models.
- ❖ Dividend in excess of Rs. 10 lakh per annum to be taxed at additional 10%.

### Personal Finance:

- ❖ No changes have been made to existing income tax slabs.
- ❖ Rs 1,000 crore allocated for new EPF (Employees' Provident Fund) scheme.
- ❖ Govt. will pay EPF contribution of 8.33% for all new employees for first three years.
- ❖ Deduction for rent paid will be raised from Rs 20,000 to Rs 60,000 to benefit those living in rented houses.
- ❖ Additional exemption of Rs. 50,000 for housing loans up to Rs. 35 lakh, provided cost of house is not above Rs. 50 lakh.
- ❖ Service tax exempted for housing construction of houses less than 60 m<sup>2</sup>.
- ❖ 15% surcharge on income above Rs. 1 crore.

### Social:

- ❖ Rs. 38,500 crore for MGNREGA for 2016-17.
- ❖ Swachh Bharat Abhiyan allocated Rs. 9,500 crores.
- ❖ Hub to support SC/ST entrepreneurs.
- ❖ Government is launching a new initiative to provide cooking gas to BPL families with state support.
- ❖ LPG connections to be provided under the name of women members of family: Rs. 2000 crore allocated for 5 years for BPL families.
- ❖ 2.87 lakh crore grants to gram panchayats and municipalities—a quantum jump of 228%.
- ❖ 300 urban clusters to be set up under Shyama Prasad Mukherji Rurban Mission.
- ❖ Four schemes for animal welfare.

### Health:

- ❖ 2.2 lakh renal patients added every year in India. Basic dialysis equipment gets some relief.

- ❖ A new health protection scheme for health cover upto 1 lakh per family.
- ❖ National Dialysis Service Prog with funds through PPP mode to provide dialysis at all district hospitals.
- ❖ Senior citizens will get additional health care cover of Rs 30,000 under the new scheme.
- ❖ PM Jan Aushadhi Yojana to be strengthened, 300 generic drug store to be opened.

### Education:

- ❖ Scheme to get Rs. 500 crore for promoting entrepreneurship among SC/ST.
- ❖ 10 public and 10 private educational institutions to be made world-class.
- ❖ Digital repository for all school leaving certificates and diplomas. Rs. 1,000 crore for higher education financing.
- ❖ Rs. 1,700 crore for 1500 multi-skill development centres.
- ❖ 62 new navodaya vidyalayas to provide quality education.
- ❖ Digital literacy scheme to be launched to cover 6 crore additional rural households.
- ❖ Entrepreneurship training to be provided across schools, colleges and massive online courses.
- ❖ Objective to skill 1 crore youth in the next 3 years under the PM Kaushal Vikas Yojna.
- ❖ National Skill Development Mission has imparted training to 76 lakh youth. 1500 Multi-skill training institutes to be set up.

### Energy:

- ❖ Rs. 3000 crore earmarked for nuclear power generation.
- ❖ Govt drawing comprehensive plan to be implemented in next 15-20 years for exploiting nuclear energy.

- ❖ Govt to provide incentive for deepwater gas exploration.
- ❖ Deepwater gas new disc to get calibrated market freedom, pre-determined ceiling price based on landed price of alternate fuels.

#### **Investments and infrastructure:**

- ❖ Rs. 27,000 crore to be spent on roadways.
- ❖ 65 eligible habitats to be connected via 2.23 lakh kms of road. Current construction pace is 100 kms/day.
- ❖ Shops to be given option to remain open all seven days in a week across markets.
- ❖ Rs. 55,000 crore for roads and highways. Total allocation for road construction, including PMGSY, - Rs 97,000 crore.
- ❖ India's highest-ever production of motor vehicles was recorded in 2015.
- ❖ Total outlay for infrastructure in Budget 2016 now stands at Rs. 2,21,246 crore.
- ❖ New greenfield ports to be developed on east and west coasts.
- ❖ Revival of underserved airports. Centre to Partner with States to revive small airports for regional connectivity.
- ❖ 100 % FDI in marketing of food products produced and marketed in India.
- ❖ Dept. of Disinvestment to be renamed as Dept. of Investment and Public Asset Management.
- ❖ Govt will amend Motor Vehicle Act in passenger vehicle segment to allow innovation.
- ❖ MAT will be applicable for startups that qualify for 100 % tax exemption.
- ❖ Direct tax proposals result in revenue loss of Rs.1060 crore, indirect tax proposals result in gain of Rs.20,670 crore.

#### **Agriculture:**

- ❖ Total allocation for agriculture and farmer welfare at Rs 35984 crores.
- ❖ 28.5 lakh hectares of land will be brought under irrigation.
- ❖ 5 lakh acres to be brought under organic farming over a three year period.
- ❖ Rs 60,000 crore for recharging of ground water recharging as there is urgent need to focus on drought hit areas cluster development for water conservation.
- ❖ Dedicated irrigation fund in NABARD of Rs. 20,000 crore.
- ❖ Nominal premium and highest ever compensation in case of crop loss under the PM Fasal Bima Yojna.

#### **Banking:**

- ❖ Banks get a big boost: Rs 25,000 crore towards recapitalisation of public sector banks. Banking Board Bureau will be operationalised.
- ❖ Target of disbursement under MUDRA increased to 1,80,000 crore.
- ❖ Process of transfer of government stake in IDBI Bank below 50% started.
- ❖ General Insurance companies will be listed in the stock exchange.
- ❖ Govt to increase ATMs, micro-ATMs in post offices in next three years.

**Sumit**  
(MBA 4<sup>th</sup> Semester)

### **CAG: COMPTROLLER AND AUDITOR GENERAL OF INDIA**

The comptroller and auditor general of India is an authority, established by the constitution of India under chapter V, who audits all receipt expenditure of the government of India and state governments including those bodies and authorities substantially financed by the government.

The CAG is also the external auditor of government companies. The reports of the CAG as taken into consideration by the public committees in the Parliament of India and the state legislatures. The CAG is also the head of the Indian audit and accounts department which has over 58000 employees across the country.

The CAG is ranked 9<sup>th</sup> & enjoys the same status as a judge of supreme court of India in Indian order of precedence. The current CAG of India is Vinod Rai, who was appointed on 7<sup>th</sup> January, 2008. He is the 11<sup>th</sup> CAG of India. The CAG is appointed by the president of India following a recommendation by the prime minister. The CAG can be removed only on an address from both houses of parliament on the grounds of proved misbehavior or incapacity in a manner a judge of the supreme court is removed.

**Vijay Kumar**  
(MBA 4<sup>th</sup> Semester)

### **DIFFERENT TYPES OF CHEQUES ISSUED IN INDIA**

A cheque is a payment instrument that is issued by a bank account holder for making payments to an individual or company and cash withdrawals from the bank. Apart from that, it also facilitates funds transfer to another bank account. For instance, you can make cash payment for a utility bill or you can do it by writing a cheque. The biggest benefit of a cheque is that it allows high value transactions which may become a bit cumbersome if hard cash was used instead.

The following details are necessary in a cheque:

- ★ A cheque must be drawn upon a specified bank (Drawee).
- ★ A cheque must be signed by the person (Drawer) issuing the cheque.
- ★ A cheque must have the name of the recipient (Payee) of the cheque.

- ★ A cheque must mention the amount of money in words and figures.
- ★ A cheque must be dated.

#### **Classification of Cheques:**

##### **A.) Main types of Cheques:**

- ★ **Open cheque:** A cheque is called open when it is possible to get cash over the counter at the bank. The holder of an open cheque can receive payment over the counter at the bank, deposit the cheque in his own account or pass it to someone else by signing on the back of a cheque.
- ★ **Bearer cheque:** A cheque which is payable to any person who presents it for payment at the bank counter is called 'Bearer cheque'. A bearer cheque can be transferred by mere delivery and requires no endorsement.
- ★ **Order cheque:** It is the one which is payable to a particular person. In such a cheque the word 'bearer' may be cut out or cancelled and the word 'order' may be written. The payee can transfer an order cheque to someone else by signing his or her name on the back of it.
- ★ **Crossed cheque:** When a cheque is crossed, the holder cannot encash it at the counter of the bank. The payment of such cheque is only credited to the bank account of the payee. Crossed cheque is done by drawing two parallel lines across top left corner of the cheque, with or without writing 'Account payee' in the space between the lines.

##### **B.) Based on the location, cheques are classified as:**

- ★ **Local cheques:** If issued by a bank in the same city as the payee.
- ★ **Outstation cheques:** If a given city's local cheque is presented elsewhere it becomes an outstation cheque and may

attract some nominal but fixed banking charges.

- ★ **At par cheque:** It is accepted at par at all its branches across the country. Unlike local cheque it can be present across the country without attracting additional banking charges.

**C.) Based on its value, cheques are classified as:**

- ★ **Normal Value cheques:** Cheques below the amount of Rs. 1 lakh are called normal value cheques.
- ★ **High Value cheques:** Cheques bearing an amount higher than Rs. 1 lakh is a high value cheque.
- ★ **Gift cheques:** Cheques used for gifting money to loved ones are gift cheques. The value may vary from Rs. 100 to Rs. 10,000.

**D.) Various cheques which guarantee payments:**

- ★ A self cheque: It is written by the account holder as pay self to receive money in physical form from the branch where he holds his account. This can be alternated by using an ATM card.
- ★ Post-dated cheque (PDC): A PDC is a form of a crossed or account payee bearer cheque but post-dated to meet the said financial payment at a future date. The cheque is valid from the date of issue to three months.
- ★ A Banker's cheque: A banker's cheque is issued by a bank drawing money from its own funds rather than that from an account holder's. Banker's cheque is issued after the bank verifies the account status of the requestor and the amount is immediately deducted from the customer's account. A banker's cheque cannot be dishonored as in the case of a normal cheque, when an account holder has insufficient funds in his/her account. Though different

from a normal cheque it requires clearing too.

- ★ A Traveller's cheque: It is a printed open type cheque issued as an alternate for carrying around cash while travelling abroad or on a vacation to a foreign country as they come with a replacement guarantee and lifelong validity. Traveler's cheques are widely accepted by merchants, restaurants and other recreational organizations. The unused cheques from the recent trip can be used for your next trip.

**Rajnish Negi**  
(MBA 4<sup>th</sup> Semestar)

## **IMPORTANCE OF FOREIGN INVESTMENTS IN INDIA**

Recently, crowned as World's 3<sup>rd</sup> largest economy by the Organisation for Economic Cooperation and Development (OECD), is the Indian economy already trembling.

The financial crisis in global markets has made the outlook of Indian economy grim. While the consistently volatile markets and the rupee plunging to an all-time low against the USD are some major concern at this moment, natural calamities and economic scandals seem to be the icing on the cake. Two decades ago, in the early 90's, India faced a similar crisis. At that time India's major concerns were the problem in balance of payments and poor foreign exchange reserves.

During the crisis, Dr. Manmohan Singh, the Finance Minister of India at that time, came up with a solution to reform the Indian economy. He liberalized the economy by ending the license raj and gave rise to the phenomena of foreign investments in India. Thus, opening the gates for foreign players to come and invest in India.

Since then, foreign investments have been the backbone of the Indian economy and like the 90's this time too, it would seem

that foreign investments might be holding the magic wand that may be able to pull India out of the current economic slump. Foreign investments are flows of capital from one nation to another in exchange for significant ownership stakes in domestic companies or other domestic assets. There are two types of foreign investments that play a major role in the growth of Indian economy; Foreign Direct Investments (FDI) and Foreign Institutional Investments (FII).

### **What is FDI?**

It refers to an investment made by a foreign individual or a company in the productive capacity of another country. It can be considered as the movement of capital across national frontiers in a manner that allows the investor to have a control over the investment. Firms that provide FDI are referred to as MNCs. The investors can invest in existing industries/business or can promote new industries. There can be two types of FDI- inward and outward. The cumulative of two, results in net FDI inflow. FDI is freely allowed in all the sectors except a few sectors, though in certain sectors FDI is not allowed beyond a ceiling.

### **Why is FDI needed?**

FDI plays a major role in developing countries like India. They act as a long term source of capital as well as a source of advanced and developed technologies. The investors also bring along best global practices of management. As large amount of capital comes in through these investments more and more industries are set up. This helps in increasing employment. FDI also helps in promoting international trade. This investment is a non-debt, non-volatile investment and returns received on these are generally spent on the host country itself thus helping in the development of the country.

Some of the sectors that attract high FDI inflows in India are the hotel and tourism

industry, insurance sector, telecommunication, real estate, retail, power, drugs, financial services, infrastructure and pollution control etc. FDI is not permitted in the following sectors:

- Railways
- Atomic energy
- Defence
- Coal and lignite

Following are some of the sectors in our country which attract massive FDI investments:

- **Retail Sector:** This industry accounts for 13% of country's GDP. Retail outlets acts as an interface between the producers and the consumers of a good. Indian government liberalized FDI in 2005 in this sector to 100%, thus enabling foreign investors to set up retail companies in India. Retail industry is divided into organised and unorganised sectors. Organised sectors include hypermarkets and retail chains whereas unorganised sector include local *kirana* shops (mom and pop stores). The latter is more prevalent in India. Due to massive development taking place, organised sector is increasing its foothold in the country. Since advanced technology and management structure is used with foreign investments the price of the goods in the organised retail industry falls and productivity of the firm increases. Today modern retail outlets provide everything from basic amenities to luxury goods. They also provide consumer with a wide variety. They have become the one-stop shop for customers. This trend is destroying the sales of unorganised retail sector. Therefore on one hand FDI helps in reducing prices of the manufactured goods and on the other, it is rendering our unorganized retail sector paralyzed. The government has recently made it

mandatory for foreign investors in multi-brand retail sector to do their bulk sourcing from small farmers. With this move government is preventing wipe-out of shopkeepers and small retailers.

- **Manufacturing Sector:** Government has allowed 100% FDI in this sector except in defence industry and cigarette manufacturing. Foreign investments in this sector will help in employment of semi-skilled labour by providing them with access to developed technology.
- **Real Estate, Construction Development and Tourism:** Any country's growth and development is determined by its infrastructure. Due to increasing population and migration of people from rural to urban areas, the real estate sector is booming. Tourism industry is one of the major earners of foreign exchange for the country. It has a huge potential for our economy. It is also one of the major sectors in employment. Large amount of investments are needed to build roads, bridges, infrastructure so as to promote overall economic development of the country.
- **Power Sector:** Power is considered most crucial sector for development. Since public sector alone was not able to meet the demands, investments from private and foreign investors was encouraged. Power generation, transmission and distribution are main areas of consideration. India has a vast scope of development in hydel power, nuclear power, solar power, thermal energy as well as in wind energy. Renewable sources of energy require vast amount of investments for research and development.

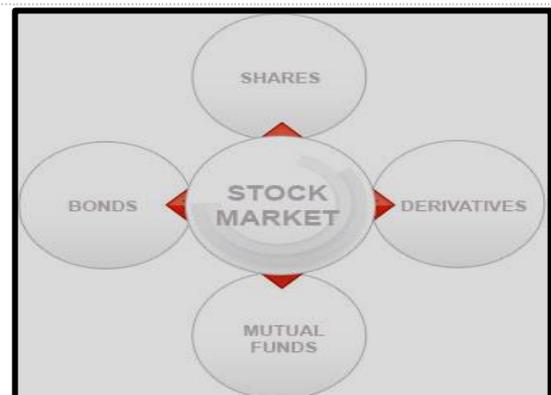
**Conclusion:** FDI, thus on one hand helps in increasing the output through usage of advanced technology and management

techniques and on the other it is a threat to local companies in the country. Government should take steps in the direction of integrating foreign investors with local businesses. This will help in overall economic development as well as preservation of country's heritage. MNCs should be allowed to set up in such a manner that they help increase the standard of living of our country instead of sole profit making.

**Vipan Kumar**  
(MBA 4<sup>th</sup> Semestar)

### **WHAT ARE THE FINANCIAL INSTRUMENTS TRADED IN A STOCK MARKET?**

Now that we have understood what a stock market is, let us understand the four key financial instruments that are traded:



- ☑ **Bonds:** Companies need money to undertake projects. They then pay back using the money earned through the project. One way of raising funds is through bonds. When a company borrows from the bank in exchange for regular interest payments, it is called a loan. Similarly, when a company borrows from multiple investors in exchange for timely payments of interest, it is called a bond. For example, imagine you want to start a



project that will start earning money in two years. To undertake the project, you will need an initial amount to get started. So, you acquire the requisite funds from a friend and write down a receipt of this loan saying 'I owe you Rs. 1 lakh and will repay you the principal loan amount by five years, and will pay a 5% interest every year until then'. When your friend holds this receipt, it means he has just bought a bond by lending money to your company. You promise to make the 5% interest payment at the end of every year, and pay the principal amount of Rs 1 lakh at the end of the fifth year. Thus, a bond is a means of investing money by lending to others. This is why it is called a debt instrument. When you invest in bonds, it will show the face value – the amount of money being borrowed, the coupon rate or yield – the interest rate that the borrower has to pay, the coupon or interest payments, and the deadline for paying the money back called as the maturity date.

- ☑ **Secondary Market:** The share market is another place for raising money. In exchange for the money, companies issue shares. Owning a share is akin to holding a portion of the company. These shares are then traded in the share market. Consider the previous example; your project is successful and so, you want to expand it. Now, you sell half of your company to your brother for Rs. 50,000. You put this transaction in writing – 'my new company will issue 100 shares of stock. My brother will buy 50 shares for Rs 50,000. Thus, your brother has just bought 50% of the shares of stock of your company. He is now a shareholder. Suppose your brother immediately needs Rs. 50,000. He can

sell the share in the secondary market and get the money. This may be more or less than Rs 50,000. For this reason, it is considered a riskier instrument.

Shares are thus, a certificate of ownership of a corporation. Thus, as a stockholder, you share a portion of the profit the company may make as well as a portion of the loss a company may take. As the company keeps doing better, your stocks will increase in value.

- ☑ **Mutual Funds:** These are investment vehicles that allow you to indirectly invest in stocks or bonds. It pools money from a collection of investors, and then invests that sum in financial instruments. This is handled by a professional fund manager. Every mutual fund scheme issues units, which have a certain value just like a share. When you invest, you thus become a unit-holder. When the instruments that the MF scheme invests in make money, as a unit-holder, you get money. This is either through a rise in the value of the units or through the distribution of dividends – money to all unit-holders.
- ☑ **Derivatives:** The value of financial instruments like shares keeps fluctuating. So, it is difficult to fix a particular price. Derivatives instruments come handy here. These are instruments that help you trade in the future at a price that you fix today. Simply put, you enter into an agreement to either buy or sell a share or other instrument at a certain fixed price.

**Anurag**  
**(MBA 4<sup>th</sup> Semestar)**

## FICCI

The Federation of Indian Chambers of Commerce and Industry (FICCI) is an association of business organizations in India, headquartered in the national capital New Delhi. FICCI is one of the main organizations to fund and support many governmental and non-governmental educational institutes. It was founded by G.D. Birla and Purushottam Takkur in 1927, on the advice of Mahatma Gandhi. FICCI is also the permanent Indian host of the Global India Business Meeting an annual meeting organised by Horasis. Now it is headed by R.V. Kanoria. Kamal Haasan has been appointed as the chairman of FICCI Media and Entertainment Business Conclave. The main functions of FICCI are given below:

- Undertakes economic research and encourages scientific research useful for the development of industry and commerce.
- Arranges business education and technical education.
- Publishes periodicals for dissemination of information useful to business community.
- Provides library facilities to members.
- Offers advice and suggestion on management, quality improvement so as to improve competitive strength of Indian industry.
- Arranges seminars, conferences and workshops on subjects of importance to business community.
- Sends trade delegations abroad to explore foreign investment and assists in negotiating bilateral trade agreements.
- Resolves differences and disputes among members through arbitration.

Thus, FICCI is making outstanding contribution in the fields of export promotion, commercial arbitration, business legislation, research, infrastructural

development, etc., for the protection and promotion of business interests.

**Akshay Thakur**  
(MBA 4<sup>th</sup> Semester)

## MONETARY POLICY

Monetary policy is a regulatory policy by which the central bank or monetary authority of a country controls the supply of money, availability of bank credit and cost of money, that is, the rate of Interest.

Monetary policy / monetary management is regarded as an important tool of economic management in India. RBI controls the supply of money and bank credit. The Central bank has the duty to see that legitimate credit requirements are met and at the same credit is not used for unproductive and speculative purposes. RBI rightly calls its credit policy as one of controlled expansion.

**Objectives of Monetary Policy of India:** The main objective of monetary policy in India is 'growth with stability'. Monetary Management regulates availability, cost and use of money and credit. It also brings institutional changes in the financial sector of the economy. Following are the main objectives of monetary policy in India:

1. **Growth with Stability:** Traditionally, RBI's monetary policy was focused on controlling inflation through contraction of money supply and credit. This resulted in poor growth performance. Thus, RBI has now adopted the policy of 'Growth with Stability'. This means sufficient credit will be available for growing needs of different sectors of economy and at the same time, inflation will be controlled within a certain limit.
2. **Regulation, Supervision and Development of Financial Stability:** Financial stability means the ability of the economy to absorb shocks and maintain confidence in financial system.

Threats to financial stability can come from internal and external shocks. Such shocks can destabilize the country's financial system. Thus, greater importance is being given to RBI's role in maintaining confidence in financial system through proper regulation and controls, without sacrificing the objective of growth. Therefore, RBI is focusing on regulation, supervision and development of financial system.

3. **Promoting Priority Sector:** Priority sector includes agriculture, export and small scale enterprises and weaker section of population. RBI with the help of bank provides timely and adequately credit at affordable cost of weaker sections and low income groups. RBI, along with NABARD, is focusing on microfinance through the promotion of Self Help groups and other institutions.
4. **Generation of Employment:** Monetary policy helps in employment generation by influencing the rate of investment and allocation of investment among various economic activities of different labour Intensities.
5. **External Stability:** With the growth of imports and exports India's linkages with global economy are getting stronger. Earlier, RBI controlled foreign exchange market by determining exchange rate. Now, RBI has only indirect control over external stability through the mechanism of 'managed Flexibility', where it influences exchange rate by buying and selling foreign currencies in open market.
6. **Encouraging Savings and Investments:** RBI by offering attractive interest rates encourage savings in the economy. A high rate of saving promotes investment. Thus the monetary management by influencing rates of interest can influence saving mobilization in the country.

7. **Redistribution of income and Wealth:** By control of inflation and deployment of credit to weaker sectors of society the monetary policy may redistribute income and wealth favouring to weaker sections.

8. **Regulation of NBFIs:** Non – Banking Financial Institutions (NBFIs), like UTI, IDBI, IFCI plays an important role in deployment of credit and mobilization of savings. RBI does not have any direct control on the functioning of such institutions. However it can indirectly affects the policies and functions of NBFIs through its monetary policy.

**Shubam Soni**  
(BBA 4<sup>th</sup> Semester)

### **SEBI: FUNCTIONS OF SEBI**

Securities Exchange Board of India (SEBI) was set up in 1988 to regulate the functions of securities market. SEBI promotes orderly and healthy development in the stock market but initially SEBI was not able to exercise complete control over the stock market transactions.

It was left as a watch dog to observe the activities but was found ineffective in regulating and controlling them. As a result in May 1992, SEBI was granted legal status. SEBI is a body corporate having a separate legal existence and perpetual succession.

**Reasons for Establishment of SEBI:** With the growth in the dealings of stock markets, lot of malpractices also started in stock markets such as price rigging, 'unofficial premium on new issue, and delay in delivery of shares, violation of rules and regulations of stock exchange and listing requirements. Due to these malpractices the customers started losing confidence and faith in the stock exchange. So government of India decided to set up an agency or regulatory body known as Securities Exchange Board of India (SEBI).

**Functions of SEBI:** The SEBI performs functions to meet its objectives. To meet three objectives SEBI has three important functions. These are:

☑ **Protective Functions:** These functions are performed by SEBI to protect the interest of investor and provide safety of investment. As protective functions SEBI performs following functions:

(ii) It Checks Price Rigging. Price rigging refers to manipulating the prices of securities with the main objective of inflating or depressing the market price of securities. SEBI prohibits such practice because this can defraud and cheat the investors.

(iii) It Prohibits Insider trading. Insider is any person connected with the company such as directors, promoters etc. These insiders have sensitive information which affects the prices of the securities. This information is not available to people at large but the insiders get this privileged information by working inside the company and if they use this information to make profit, then it is known as insider trading, for example, the directors of a company may know that company will issue Bonus shares to its shareholders at the end of year and they purchase shares from market to make profit with bonus issue. This is known as insider trading. SEBI keeps a strict check when insiders are buying securities of the company and takes strict action on insider trading.

(iv) SEBI prohibits fraudulent and Unfair Trade Practices. SEBI does not allow the companies to make misleading statements which are likely to induce the sale or purchase of securities by any other person.

(v) SEBI undertakes steps to educate investors so that they are able to evaluate the securities of various

companies and select the most profitable securities.

(vi) SEBI promotes fair practices and code of conduct in security market.

☑ **Developmental Functions:** These functions are performed by the SEBI to promote and develop activities in stock exchange and increase the business in stock exchange. Under developmental categories following functions are performed by SEBI:

(i) SEBI promotes training of intermediaries of the securities market.

(ii) SEBI tries to promote activities of stock exchange by adopting flexible and adoptable approach.

☑ **Regulatory Functions:** These functions are performed by SEBI to regulate the business in stock exchange. To regulate the activities of stock exchange following functions are performed:

(i) SEBI has framed rules and regulations and a code of conduct to regulate the intermediaries such as merchant bankers, brokers, underwriters, etc.

(ii) These intermediaries have been brought under the regulatory purview and private placement has been made more restrictive.

(iii) SEBI registers and regulates the working of stock brokers, sub-brokers, share transfer agents, trustees, merchant bankers and all those who are associated with stock exchange in any manner.

(iv) SEBI registers and regulates the working of mutual funds etc.

(v) SEBI regulates takeover of the companies.

(vi) SEBI conducts inquiries and audit of stock exchanges.

**Parshant Thakur**  
(MBA 4<sup>th</sup> Semestar)

# English Section

## From Student Editor's Pen



Dear Readers,

It gives me immense pleasure to welcome to have first issue of the college magazine “**CP Pulse**”. This tends to be the outcome of the collective and valuable efforts of all the associates that the first issue of our magazine is going to see the light of the day.

Today, English language is a global language through which knowledge of modern science and technology is being imparted in this world. If we impose a ban on this language, it will result in hampering the progress. Since, English language finds access to the two-third portion of the world, therefore government should make perennial effort to provide adequate knowledge of English to Indian students in institutions so that they may add another feature in the cap of the development of the country.

This section is bound to make an attempt to enhance the creative and innovative abilities of the students. As a student editor, I learnt a lot and which helped me to groom my personality. I feel obliged to thank the Hon’ble Vice Chancellor and express my gratitude to **Mr. Saurabh Kumar Staff Editor** who inculcated the encouragement in me to accomplish this task.

I wish good success in future to all the students and hope that they would come up with flying colors in different fields of their respective life and career.

In the end, I heartily congratulate those whose articles have been brought out. I am extremely sorry for those students whose articles remained unpublished due to the lack of space. I sincerely hope that they will not stop writing.

**“Standing at the foot, students looked at the sky,  
How can we get up, students if we never try”**

**Pratibha Thakur**  
(M.Sc. Chemistry 2<sup>nd</sup> Semester)

## SEVEN PERSONALITY TRAITS OF A GREAT LEADER

If you want to be a leader who attracts quality people, the key is to become a person of quality yourself. Leadership is the ability to attract someone to the gifts, skills and opportunities you offer as an owner, as a manager, as a parent. Jim Rohn calls leadership the great challenge of life. What's important in leadership is refining your skills. All great leaders keep working on themselves until they become effective. Here's how they do it:

### 1. Learn To Be Strong But Not Impolite.

It is an extra step you must take to become a powerful, capable leader with a wide range of reach. Some people mistake rudeness for strength, It's not even a good substitute.

### 2. Learn To Be Kind But Not Weak.

We must not mistake weakness for kindness. Kindness isn't weak. Kindness is a certain type of strength. We must be kind to tell someone the truth. We must be kind and considerate enough to lay it on the line. We must be kind enough to tell it like it is and not deal in delusion.

### 3. Learn to be bold but not a bully.

It takes boldness to win the day. To build your influence, you've got a walk in front of your group. You've got to be willing to take the first arrow, tackle the first problem, and discover the first sign of trouble.

### 4. Learn To Be Humble But Not Timid.

You can't get to the high life by being timid. Some people mistake timidity for humility. But humility is a virtue; timidity is a disease. It's an affliction. Humility is a grasp of the distance between us and the stars, yet having the feeling that we are the part of stars.

### 5. Learn To Be Proud But Not Arrogant.

It takes pride to build your ambitions. It takes pride in your community. It takes pride in a cause, in accomplishment. But the key to becoming a good leader is to be proud without being arrogant. Do you know

the worst kind of arrogance? Arrogance from ignorance, it's intolerable. If someone is smart and arrogant, we can tolerate that. But if someone is ignorant and arrogant, that's just too much to take.

### 6. Learn To Develop Humor Without Folly.

In leadership, we learn that it's okay to be witty but not silly; fun but not foolish.

### 7. Learn To Deal In Realities.

Deal in truth. Save yourself the agony of delusion. Just accept life as it is- the whole drama of life. It's fascinating.

Pratibha Thakur  
(M.Sc. Chemistry 2<sup>nd</sup> Semester)

## ASPECTS OF LIFE

Life is a beauty - praise it

Life is a challenge - meet it

Life is a gift - accept it

Life is an adventure - date it

Life is a sorrow - overcome it

Life is a tragedy - face it

Life is a duty - perform it

Life is a song - sing it

Life is a game - play it

Life is a mystery - unfold it

Life is a promise - fulfil it

Life is a struggle - fight it

Life is a goal - achieve it

Life is a spirit - realize it

Life is a love - enjoy it

Sangeeta Rani  
(M.Sc. Chemistry 2<sup>nd</sup> Semester)

## WOMEN EMPOWERMENT

India is a very famous country known for its cultural heritage, traditions, civilizations, religion and geographical features from the ancient time. On the other hand, it is also popular as a male chauvinistic nation. Women are given first priority in India however on the other hand they are badly treated in the family and society. They are limited only for the household chores or to

understand the responsibility of home and family members. They are kept totally unaware of their rights and own development. People of India used to call this country as “Bharat-Mata”, however, never realized the true meaning of it. Bharat-Mata means a mother of every Indian whom we have to save and care always.

**Sucheta Mankotia**  
(B.Sc. Hons. Chemistry 4<sup>th</sup> Semester)

### WHAT IS COLLEGE LIFE?

What is college life? It was a question that often bobbed in my mind before joining the collage. But now I understand this, and I can say: “No Knowledge without College.” I ask you all a simple question. “What does a college mean”? The answer is a “sense of maturity,” which the college life produces in you. College serves as a platform for us in different fields of life. It makes a man perfect for future. It shapes the life and personality of a man. Here, we learn to behave and interact with the outer world. It is a life that is full of joys, enthusiasm, dreams and desires. These three years of college can bring a great change in one’s life. It is a life which is full of good and pleasant memories and experiences. I would like to conclude with the following words:

“Work while you work  
Play while you play  
That is the way  
To be Happen and Gay”

**Pooja Sharma**  
(M.Sc. Botany 4<sup>th</sup> Semester)

### HOPE IN LIFE

**Chu le tu asman zameen ki talash na kar  
Je le zindgi tu khushi ki taalash na kr  
Taqdir badal jaayegi apne aap hi a dost  
Muskurana sikh le bajah ki taalash na kr**

We live today in a world which is steadfast and street smarts are breathing but not living. We have eyes but not vision, brains but not innovations, so busy in self that we have become oblivious of the people around us, steadily progressing towards a world full of pretension and forgetting the moral way of living. Life of a complicated yet a wonderful journey which one has to undergo and make it successful making the best out of many things.

**Ho k mayush na yun sham se dhlte rhiye  
Zindgi bhr suraj sa niktte rhiye  
Ek hi pawan pe dauroge thak jaoge  
Dheere dhare hi shi raah pe chalte rahiye**

Dead is a person who has lost the hope to rise in the small world of his. Hope is a beautiful flower which gives us sweet fragrance. Hope is a light which shows a way in darkness. Hope is an inspiration leading up to success. Hope is a thought which gives us peace of mind. Hope is an entertainment which gives us happiness. In other words, we should never lose hopes. We should be optimistic and hopeful.

**Ramita Thakur**  
(M.Sc. Chemistry 2<sup>nd</sup> Semester)

### DO YOU KNOW?

- \* “Baily Bridge” is the highest bridge in the world located in Ladakh valley between the Dras and Suru rivers in the Himalyan mountains built by the Indian army in 1982.
- \*The largest cave in the world “Han Son Doong” is in Vietnam. It’s over 200 meters high and has its own climate, jungles, rivers, and clouds inside.
- \*The largest flower in the world is “Titan arums”. The size of flower is about 10 feet high and 3 feet wide i.e. even bigger than an elephant.
- \*An average strawberry has about 200 seeds and it is the only fruit that bears its seeds on the outside.

\*Venice is the most beautiful city in the world .It is placed number one position in the top ten cities.

\*Banana is an Arabic word used for fingers and banana contain natural chemical which can make people feel happy.

\*Apple is 25% air that is why it floats on water.

\*Baikal in Russia is the world's deepest and oldest lake.

**Poonam**  
(M.Sc. Botany 2<sup>nd</sup> Semester)

### TRUE FRIEND

Make a true friend that loves you.  
Make a true friend that cares for you.  
Make a true friend that thinks of you.  
Make a true friend that helps you.  
Make a true friend that  
Shares joys and sorrows with you.  
Make true friend that has all the good  
qualities of loving, sharing and caring.

“Friend is everywhere but a true friend is  
very rare.”

**Kamini Verma**  
(BALLB 4<sup>th</sup> Semester)

### SAY NO TO CARELESSNESS AT ROAD

Yes, every one of us want thrill in our life especially boys. We love to see high action movies. We try to live our life at the edge of danger. But have we ever thought for a while what will happen the day we are not here anymore? How many will be there to remember us if we have worthless death? The lines might be harsh for a simple thing we might be talking of not wearing a helmet when you ride a motorbike or not fastening your seat belt as you drive. These are some things people do not care to listen to, you do not care to listen to and even stop reading this further but it's surprising to say that

according to a survey, 250 people die by accidents in India everyday, of which 40% are pedestrians and the rest on vehicles. So, next time you go out think about your safety and also the person who is along with you. Life hardly gives a second chance, so always wear helmet or fasten your seat belts and never use cell phones or engage yourself in a talk as you drive.

**Arty**  
(M.Sc. Chemistry 2<sup>nd</sup> Semester)

### THE POWER OF POSITIVE THINKING

Positive thinking is a mental attitude that admits into the mind thoughts, words and images that are conducive to Growth, Expansion and Success.

It is a mental attitude that expects good and favorable results.

A positive mind anticipates Happiness, Joy, Health and a Successful outcome of every situation and action whatever.....!!!

**Ujwal Sharma**  
(M.Sc. Chemistry 2<sup>nd</sup> Semester)

### WHY NOT A GIRL?

People pray for a boy,  
Not for a girl.  
They desire a boy,  
Not a girl.

Blessing of elders are for men,  
Not for the women.

When they need wealth,  
They pray to goddess Laxmi.

When they need courage,  
They pray to goddess Durga.

When they desire knowledge,  
They pray to goddess Saraswati.

Now tell me, why do they hesitate to have a  
DEVI in the family?

**Shivani Sharma**  
(BALLB 4<sup>th</sup> Semester)

## IMPORTANT THREE THINGS

Three things in life once gone, never come back

“Time, words, and opportunity”.

Three things in life that may never be fast

“Peace, hope and honesty”.

Three things in life which are most valuable

“Love, self confidence and friends”.

Three things in life which are never certain

“Dreams, success and fortunes”.

Three things in life which makes

men/women

“Hard work, sincerity and commitment”.

Three things in life that can destroy

“Alcohol, pride and anger”.

Three things in life that once past, hard to

build up

“Respect, trust and friends”.

Three things in life that can never be hidden

“Truth, age and smell”.

**Santosh Kumari**

**(M.Sc. Chemistry 2<sup>nd</sup> Semester)**

## MAKE A DIFFERENCE

We are all gifted with a unique set of Skills and Abilities with these abilities we can either make extra ordinary things happen in the world around us, or not.

It is completely up to you whether you want your life to make a difference and what difference you want in your life.

**Krishna Devi**

**(M.Sc. Chemistry 2<sup>nd</sup> Semester)**

## VALUE OF TIME

To relive the value of one year,

Ask a student who has failed his final exams.

To realize the value of one month,

Ask a month who has come first to a premature baby.

To realize the value of one week.

Ask the editor of weekly newspaper.

To realize the value of one day.

Ask a daily wage labour who has ten kids to feed.

To realize the value of an hour.

Ask the person who has waiting to meet.

To realize the value of one minute.

Ask the person who has survived an accident.

To realize the value of one second.

Ask the person who has won a Gold Medal.

**Shalini Pandir**

**(BALLB 4<sup>th</sup> Semester)**

## ALPHABETS TO SUCCESS

Attend carefully to details.

**B**e prompt in all things.

Consider will and then decide.

**D**are to right, fear to do wrong.

**E**ndure trails patiently.

**F**ight life's battle bravely.

**G**et no to vicious society.

**H**old integrity scared.

**I**njure not another's repute.

**J**oin hands with the virtuous.

**K**eeper your mind from evil thoughts.

**L**ie not for any consideration.

**M**ake new friends.

**N**ever try to appear what you are not.

**O**bserve good manners.

**P**ay your debts promptly.

**Q**uestions not the veracity of your parents.

**R**espect the counsel of your parents.

**S**acrifice money rather than principal.

**T**rust thyself.

**U**se your leisure for improvement.

**V**enture not on the threshold of wrong.

**W**atch carefully your passions.

**X**-ray your short comings.

**Y**ield not to discouragement.

**Z**ield labour for the ought.

**Liza**

**(BALLB 4<sup>th</sup> Semester)**

## EXAMINATION

God is a great examiner.  
We all are his students.  
The world is an examination hall  
And life is an answer book.  
The time allowed in three phases:  
First bell rings in "childhood"  
Second is "youth"  
Third is "old stage".  
In the last stage bell is rung by God.  
The examination is over  
The copy is snatched  
Don't try to cheat  
The examiner is everywhere  
You must not lose marks  
By wasting time and doing nothing.  
So you may not say  
The paper was lengthy and time short.  
If we fail, we come back  
A new life once again  
If we pass, we go to heaven  
And return no more.

**Deepak Sharma**  
(BBA 4<sup>th</sup> Semester)

## FUNNY QUESTIONING

- Q.1 A Butter Which We Can't Eat**  
Ans.: Butterfly
- Q.2 A polish that can't be put on your shoes**  
Ans.: Nail polish
- Q.3 A wind which can't blow**  
Ans.: Window
- Q.4 A key which is not used to open a lock**  
Ans.: Donkey
- Q.5 A gate that can't be entered**  
Ans.: Colgate
- Q.6 A table that is eaten**  
Ans.: Vegetable
- Q.7 A stick that is not used for walking**  
Ans.: Lipstick
- Q.8 what has teeth but no mouth?**  
Ans.: comb

**Indu Bala**  
(M.Sc. Chemistry 2<sup>nd</sup> Semester)

## BUILD A POSITIVE ATTITUDE

To achieve happiness and success in life, we need talent, education and experience, but most of all, we need to have the right attitude. A balloon seller has balloons of different colors: red, blue, yellow, etc. Whenever his business was slow, he would release helium filled balloon into the air. When children around saw the bright balloons floating, they would come to buy one. One day a child asked him: If you release a black balloon, will it fly? Moved by the boy's concern he replied, son, it's not color of the balloon, it's what's inside that makes it to go up. This applies to our lives also; what matter the most is our attitude towards life. A positive attitude will give us lots of energy and other around us will be benefited from it. But a negative attitude will make us bitter, jealous, unhappy ultimately leading to stress and ill health. There are several things we can do to build a positive attitude. Look for the good in people and situations. Don't always criticize and find faults. Never delay, make a habit of 'Doing it Now.' Don't focus on your troubles, but count your blessings in life and be happy. Stay away from bad influences and petty people around you who will always try to pull you down. Learn to realise what needs to be done. Think that the information you acquire will make you knowledgeable. Think positively and learn to like all your routine chores. Life is like a 10 speed bicycle. Most of us have gears we never use, but with the right attitude, we can race ahead.

**Liza**  
(BALLB 4<sup>th</sup> Semester)

## OUR INDIA

Punjab is for Fighting,  
Bengalis for Writing,  
Kashmir if for Beauty,  
Laddakh is for Duty,  
Rajasthan is for History,

Maharashtra is for Victory,  
Mysore is for Silk,  
Haryana is for Milk,  
Himachal is for Apples,  
Assam is for Temples,  
But our India is for Unity in Diversity.

**Ashu**  
(MBA 4<sup>th</sup> Semester)

### **NEERJA BHANOT**

Neerja Bhanot was born in Chandigarh on 7<sup>th</sup> September, 1963 and was recognized internationally as the “Heroine of the Hijack”. Bhanot was a flight attendant for Pan Am based in Mumbai India, who was murdered while saving passengers from terrorists on board the hijacked Pan Am flight 73 on 5th September 1986. Bhanot was the senior flight purser on the ill-fated Pan Am flight 73 which was hijacked by 4 armed men. The hijackers were part of the terrorist Abu Indian Organization. The terrorist instructed Bhanot to collect the passports of all the passengers so that they could identify the Americans. After 17 hours, the hijackers opened fire and set off explosives. Bhanot opened the emergency door and helped a number of passengers escape. She could have been the first to jump out when she opened the door but she decided not to and was shot while shielding three children from the hail of bullets. One of the children is now a captain for a major airline and has stated that Neerja Bhanot has been his inspiration and he owes every day of his life to her. Bhanot is the youngest recipient of the “Ashok Chakra Award” India’s most prestigious gallantry award for bravery. In 2004, the Indian post service released a stamp commemorating her. With the insurance money and an equal contribution from Pan Am for using the brand Pan Am in the title, Bhanot’s parents set up the Neerja Bhanot Pan Am Trust. This trust presents two awards every year;

one for the flight crew member, worldwide, who acts beyond the call of duty and another to an Indian woman who when faced with social injustice such as dowry or desertion, has faced the situation with guts and grit and then helped other women in similar social distress.

**Shikha Rani**  
(M.Sc. Chemistry 2<sup>nd</sup> Semester)

### **PARENTS**

Parents are the one, who are the wonderful gifts of God,  
They are the one, who understand our problems,  
They are the one, who face our difficulties,  
But still love us by heart,  
Even when we are dull,  
Even when we are smart.  
Mother has given us the wonderful birth,  
And father tries to keep us away from all things worst,  
If there is anyone who wants to hear us,  
They are the only one, who are dear to us,  
And they are our parents, parents and dear parents.

**Arun**  
(MBA 4<sup>th</sup> Semester)

### **IF YOU WANT**

If you want to learn, learn good manners.  
If you want to live, live simple and pure life.  
If you want to judge, judge yourself.  
If you want to speak, speak gently.  
If you want to give, give kindness.  
If you want to leave, leave sin.  
If you want to take, take blessings.  
If you want to love, love the mother land.  
If you want to serve, serve humanity.

**Tanuja Sharma**  
(M.Sc. Chemistry 4<sup>th</sup> Semester)

## RELATIONSHIP BETWEEN AIM AND SUCCESS

Success is the most wanted and desirable thing in the world. All of us want success. Some of us even do not care about the means. Have you ever thought seriously about getting success in life? Success is never attained by chance. It is always a result of long and hardest struggle. It is seen that students do not set their aims, which is must for achieving success. If dreams are not dreamt, they are never fulfilled. So dear friends, set your aims and set them high and then work hard to fulfill them. Gather all the information, knowledge and skill that can help for the fulfillment of your dreams. Then don't fear about your mistakes. Something done is thousand times better than nothing done. Each mistake will improve you a lot. Mistakes should not be taken as a hindrance but as little fruitful step towards success. Try, try and never give up. Be desirable. Don't be rigid in your thought. Rigidity hampers your knowledge and keeps us far from success while gaining knowledge. It is the openers of mind and heart that makes us think freely and think new thought. Be realistic and be true to yourself. Success is the result of hard labour.

Self help is the key to success. Life without work is like a body without soul. If we do our work honestly then we can be sure to get a glorious success. Honest man is brave and courteous. Therefore work hard and make yourself glorious. At least, we can say that hard work is a key to success and achieve your aim being positive and optimistic.

Ajay  
(M.Sc. Chemistry 2<sup>nd</sup> Semester)

## C.P.U. IS THE BEST

There are many stars in the sky  
But some of them twinkling very high.  
I know one such star and you know it too,  
So I leave the guessing part on to you.  
Today its name is on everybody's tongue,  
It is meant for the students who are bright'n  
young.

I have the pride and I have the trust.  
Its roots are hard like earth's crust  
Whether you go east or you go west  
At last you will say.....C.P.U. is the best.

Priyanka Thakur  
(B.Tech. 6<sup>th</sup> Semester)

## NO COMPULSORY ATTENDANCE

*"Sometimes it is better to bunk a class and enjoy with friends, because today when I look back, marks never make me laugh, but memories do."* -A.P.J.Abdul kalam

We have compulsory attendance criterion in almost all engineering colleges in the country. After dealing for about twelve years with attendance in school, a student entering college finds lectures insignificant. Colleges often welcome a fresher with more of extracurricular activities than studies.

**Why are Lectures Important?** There are subjects which can be studied on our own. But what we learn during lectures is more effective as it is taught by the teacher who has in-depth knowledge of the subject. Books don't tell as it is told in lectures. A person with year long experience of teaching a subject can help students in a better way. Regularly attending classes would reduce the last night burden during exams.

**Looking for Quality Teaching:** A good teacher doesn't need rules of attendance to get students attend his or her classes. Students will come on their own if they find



lectures effective. Force and compulsion never work in building up a relationship. Relationship between teachers and students should not stand on foundation of compulsion. Method of teaching, interacting and inducing knowledge should automatically attract students towards attending classes. Learning is a choice, it can't be forced.

**Labs are Fun Learning:** practical knowledge and applications are of prime importance in all fields of engineering. Labs do not require extra efforts to make them interesting. Students are already excited about learning and using new technology concept.

**The BITS Pilani Paradox:** It is one of highest ranked engineering colleges in the country, believes in giving freedom to its students. BITS has no compulsory attendance criteria, and you will still find students with 90% attendance. Here, you may not attend a single class if you wish, but again there are tests almost every other day. It is the sincerity of students which keeps them working hard, and not the rules and regulations. Zero attendance, but no compromise on performance is in fact a working formula.

**Vinesh Kumari**  
(M.Tech. CSE 2<sup>nd</sup> Semester)

# Glorious Moments of Anant-2015



Chief guest DC Hamirpur, Shri Rohan Thakur (IAS) being Felicitated by Vice-Chancellor



Sarswati Vandana by Students



Students Performing Ganesh Vandana



Energetic Bhangra Performance by Students



Students Performing Pahari Natti



Poster Presentation on the theme "Go Clean, Go Green"



*Chief Guest Interacting with the Live Models  
Exhibition Participants*



*Students Participating in different Events*



*Student Performing a Solo Bollywood Song*



*A Group Dance Performance by the students*



*Students Performing a Skit*



*Models Striking a Pose*

# Glimpses of Teachers' Day & Fresher Party



*Inauguration of the Function by Registrar, Dr. Sanjeev Sharma*



*Students Performing Bhangra*



*Teams from different Departments Participating in Quiz Competition*



*Audience Enjoying the Delightful Moments*



*Ramp Walk by Freshers*



*Mr. Fresher and Ms. Fresher Felicitated by Judges of the Function*

# National Conference on Recent Innovations in Science & Engineering (RISE-2016)



Inauguration by Chief Guest Dr. O.P. Singh from IIT Mandi



Keynote Speaker delivering his Talk on 'Recent Innovations'



Participants Attending the Conference



Dr. Kamlesh Dutta from NIT Hamirpur Delivering her Talk on 'Cloud Computing'



Participant from NIT Hamirpur Presenting her Research Work



Participant from H.P. University Shimla Presenting his Poster

# Computer Section

## From Student Editor's Pen



Dear Readers,

It is the matter of great honor for me to present “**Computer Section**” of University magazine “**CP Pulse**”. Friends, this is not just a magazine but it is a thread that binds the students’ community of the University. I hope that this will act as a source of inspiration for the readers as it is full of technical articles, tessellation of images and high hopes. The world is moving very fast and new technologies are coming up every day. Therefore, the “**Computer Section**” contains revolutionary articles like Big Data, Robotics, AI, etc. The aim of this section is to create awareness among the readers that computer and its knowledge have now become indispensable parts of our daily life. I hope everyone will enjoy this wonderful and knowledgeable section.

I would like to thank **Ms. Kirna Kumari, Staff Editor**, who gave me this opportunity to be “**Student Editor**” of the “**Computer Section**” for University magazine “**CP Pulse**”.

At last, I am also thankful to the students for their precious thoughts and knowledge in the form of their articles.

**Praveen Kumari**  
(M.Tech. CSE 2<sup>nd</sup> Semester)

## ROBOTS AND ARTIFICIAL INTELLIGENCE

Robotics is a branch of AI, which is composed of Electrical Engineering, Mechanical Engineering, and Computer Science for designing, construction, and application of robots. Artificial intelligence (AI) is arguably the most exciting field in robotics. It's certainly the most controversial: Everybody agrees that a robot can work in an assembly line, but there's no consensus on whether a robot can ever be intelligent.



Like the term "robot" itself, artificial intelligence is hard to define. AI would be a recreation of the human thought process -- a man-made machine with our intellectual abilities. This would include the ability to learn just about anything, the ability to reason, the ability to use language and the ability to formulate original ideas. Robotics is nowhere near achieving this level of artificial intelligence, but they have made a lot of progress with more limited AI. Today's AI machines can replicate some specific elements of intellectual ability.

### Difference between Robots and AI

AI Programs	Robots
★ They usually operate in computer-stimulated worlds.	★ They operate in real physical world.

★ The input to an AI program is in symbols and rules.	★ Input to robots is analog signal in the form of speech waveform or images.
★ They need general purpose computers to operate on.	★ They need special hardware with sensors and effectors.

**Vinesh Kumari**  
(M.Tech. CSE 2<sup>nd</sup> Semester)

## E-LEARNING

E-Learning is the computer and network – enabled transfer of skills and Knowledge. E-Learning application and processes include Web – based learning, computer – based learning, virtual education opportunities and digital collaboration. Content is delivered via internet/extranet, audio or video tape, satellite TV and CD-ROM. It can be self-packed or instructor-led and include media in the form of text, image, animation, streaming video and audio.

It is commonly thought that new technologies can make a big difference in education. In particular, children can interact with new media, and develop their skills, Knowledge, perception of the world under their parents monitoring, of course. Many proponents of E-learning believe that everyone must be equipped with basic knowledge in technology as well as use it as a medium to reach a particular goal.

E-learning includes all forms of electronically supported learning and teaching including Edutech. The information and communication systems whether network learning or not, serve as

specific media to implement the learning process. This often involves both out-of – classroom and in-classroom education experiences via technology, even as advances continue in regard to devices and curriculum. Abbreviations like CBT (Computer Based Training) or WBT (Wed Based Training) have been used as synonyms to E-Learning.

**Akshay**  
(MBA 4<sup>th</sup> Semester)

## **3D PRINTING**

### **What is 3D printing?**

3D printing or additive manufacturing is a process of making three dimensional solid objects from a digital file. The creation of a 3D printed object is achieved using additive processes. In an additive process an object is created by laying down successive layers of material until the entire object is created. Each of these layers can be seen as a thinly sliced horizontal cross-section of the eventual object.

### **How does 3D printing work?**

It all starts with making a virtual design of the object you want to create. This virtual design is made in a CAD (Computer Aided Design) file using a 3D modeling program (for the creation of a totally new object) or with the use of a 3D scanner (to copy an existing object). A 3D scanner makes a 3D digital copy of an object.

3d scanners use different technologies to generate a 3d model such as time-of-flight, structured/modulated light, volumetric scanning and many more.

Recently, many IT companies like Microsoft and Google enabled their hardware to perform 3d scanning, a great example is Microsoft's Kinect. This is a clear sign that future hand-held devices like smart phones will have integrated 3D scanners.

Digitizing real objects into 3d models will become as easy as taking a picture. Prices of 3d scanners range from very expensive professional industrial devices to 30 USD DIY devices anyone can make at home.

Below you'll find a short demonstration of the process of 3D scanning with a professional HDI 3D scanner that uses structured light:

To prepare a digital file for printing, the 3D modeling software "slices" the final model into hundreds or thousands of horizontal layers. When the sliced file is uploaded in a 3D printer, the object can be created layer by layer. The 3D printer reads every slice (or 2D image) and creates the object, blending each layer with hardly any visible sign of the layers, with as a result the three dimensional object.

### **Processes and technologies:**

Not all 3D printers use the same technology. There are several ways to print and all those available are additive, differing mainly in the way layers are build to create the final object.

Some methods use melting or softening material to produce the layers. Selective laser sintering (SLS) and fused deposition modeling (FDM) are the most common technologies using this way of printing. Another method of printing is when we talk about curing a photo-reactive resin with a UV laser or another similar power source one layer at a time. The most common technology using this method is called stereo lithography (SLA).

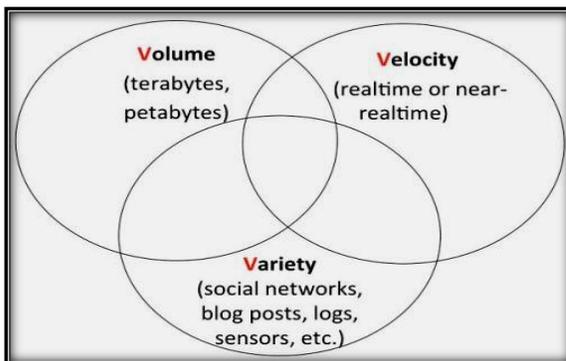
To be more precise: since 2010, the American Society for Testing and Materials (ASTM) group "ASTM F42 – Additive Manufacturing", developed a set of standards that classify the Additive Manufacturing processes into 7 categories according to: "Standard Terminology for Additive Manufacturing Technologies". These seven processes are:

- ★ Vat Photo polymerization
- ★ Material Jetting
- ★ Binder Jetting
- ★ Material Extrusion
- ★ Powder Bed Fusion
- ★ Sheet Lamination
- ★ Directed Energy Deposition

**Digvijay Singh**  
(M.Tech. CSE 2<sup>nd</sup> Semester)

### BIG DATA

Big Data is changing the way we do science today. Traditionally, data were collected manually by scientists making measurements, using microscopes or surveys. These data could be analysed by hand or using simple statistical software on a PC. Big Data analytics have changed the way computing services and resources are being used. New users are getting into the cloud services provided by data centers on a daily basis. The data is vast, but the kinds of data and the formats they take are also new. Consider the hourly clicks on Facebook, or the daily searches on Google.

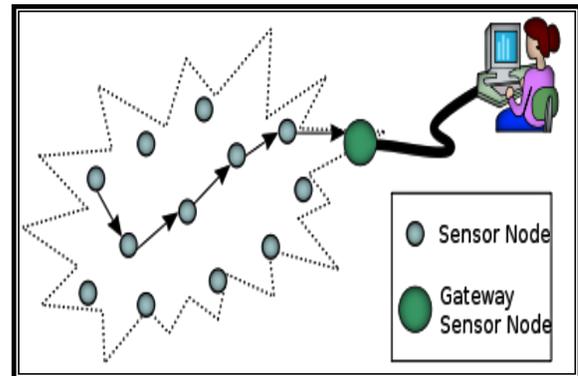


As a result, Big Data offers scientists the ability to perform powerful analyses and make new discoveries. It doesn't matter what field you operate in or the size of your business; as data collection, analysis etc.

**Neha Sharma**  
(M.Tech. CSE 2<sup>nd</sup> Semester)

## WIRELESS SENSOR NETWORKS (WSN)

Wireless sensor networks (WSN), sometimes called wireless sensor and actuator networks (WSAN), are spatially distributed autonomous sensors to monitor physical or environmental conditions, such as temperature, sound, pressure, etc. and to cooperatively pass their data through the network to a main location.



**Praveen Kumari**  
(M.Tech. CSE 2<sup>nd</sup> Semester)

## INTRODUCTION TO WEB-BASED CONTENT MARKETING

A website content writer or web content writer is a person who specializes in providing relevant content for websites. Content should contain words (key words) that attract and retain users on a website. Content is king. Content writers typically create content for the Web. This content can include sales copy, e-books, podcasts and text for graphics. Content writers use various Web formatting tools, such as HTML, CSS and JavaScript, as well as content management systems to help create their work.

- "SEO" refers to search engine optimization, or the process of optimizing a website so that people can

easily find it via search engines like Google.

- By “content,” we mean any information that lives on the web and can be consumed on the web.

It is a form of marketing in which content is exclusively created and shared with a target market in order to inform, impress, gain and retain customers. In web-based content marketing, the process remains the same but the method of reaching the target audience changes from traditional to modern (i.e. Internet). The content for digital marketing can be categorized into various types, such as news articles, how-to guides, Q&A articles, blogs, audio logs, videos, e-books, info graphics, photos, social networks, e-commerce sites, news aggregators and college websites etc.

Lately, content marketing has started gaining attention due to recommendations from the top search engines online. Search engine titan like Google have made it clear with their latest updates that without a good, user-centric and goal-oriented content strategy, you will get nowhere.

*“Content Marketing is about creation and sharing of content with your target audience in order to inform, impress, gain and retain them.”*

Any content strategy built with these four basic ideologies in mind, can surely achieve success at a global scale.

**Kusum Chauhan**  
(M.Tech. CSE 2<sup>nd</sup> Semester)

## COMPUTER NETWORK

The need of computer is increasing day by day. Every person is becoming dependent on the computers. The need for faster means of communication between different computers is arising. So to solve all these problems we have computer networks. A computer network is a group of interconnected computers sharing services

and interacting by means of shared communication. In a computer network, different devices are being shared by different computers connected over network. Moreover, the communication of computers helps us to share important information.

To maintain the computer network we use both hardware and software devices. Most common hardware media for data communication are, twisted pair cables, co-axial communication fibers and wireless link. The various softwares which help the various nodes over the network of communication are called network operating system. Some common network operating systems are Window 95, 2003, 2007 and 2008.

**Upesh Chauhan**  
(BCA 2<sup>nd</sup> Semester)

# हिन्दी और पहाड़ी अनुभाग

## छात्र संपादक की कलम से



प्रिय पाठक,

मुझे यह बताते हुए अत्यंत खुशी की अनुभूति हो रही है कि हमारे विश्वविद्यालय की पत्रिका "सीपी पल्स" का प्रथम अंक प्रकाशित होने जा रहा है और इसमें मुझे काम करने का मौका मिला। हिन्दी हमारी मातृभाषा है, और इसके संरक्षण का दायित्व हमारे ऊपर ही है। हमने इस पत्रिका में हिन्दी सवाद द्वारा इस ओर एक प्रयास किया है। हमें आशा है कि आपको हमारा यह प्रयास पसंद आएगा।

लीजा

बीएएलएलबी चौथा समेस्टर

## लैंगिक समानता के लिए संघर्ष की कड़वी सच्चाई

जब 2011 में बालिका अन्तराष्ट्रीय दिवस मनाने की घोषणा की जाने वाली थी तो एक अनुमान लगाया गया था कि विश्व भर में 18 वर्ष से कम आयु की 51 मिलियन लड़कियों का विवाह बाल अवस्था में कर दिया जाता है। इसी तरह समाज शास्त्रियों का मानना है अगले दशक में 100 मिलियन लड़कियां अथवा प्रतिदिन 25000 लड़कियों की शादियां कर दी जाएंगी। यह चिंता जनक आकड़ें ठीक उस वक्त सुर्खियों में आ रहे हैं जब पूरा विश्व ने 11 अक्टूबर को प्रथम बालिका अंतराष्ट्रीय दिवस मनाया यूनाईटड नेशनल ने दिसम्बर 2011 में एक प्रस्ताव पास किया था कि 11 अक्टूबर को बालिका अंतराष्ट्रीय दिवस मनाया जाएगा! इस दिवस को मनाने का मुख्य उद्देश्य लड़कियों की दशा पर फोकस करना कन्या विवाह पर चिंतन करना व रोकना जो एक मूलभूत मानवाधिकार का हनन है। बालिकाओं के अधिकारों से संबधित यह दिवस कई संस्थाओं व बुद्धिजीवियों को उत्साहित करेगा। इस समय पूरे विश्व में बालिका विवाह में 40 प्रतिशत विवाह अकेले भारत में होते हैं। यह बातें पूरे विश्व में हमें शर्मसार करती हैं। यह पूरे विश्व के समाज शास्त्रियों का मानना है कि इस समय लैंगिक समानता के लिए जारी वैश्विक लड़ाई इस सदी का सबसे बड़ा नैतिक संघर्ष है इस की तुलना कुछ लेखक 19 वीं शताब्दी के दासता के खिलाफ संघर्ष व 20 वीं शताब्दी के सर्वसत्तावादी तानाशाही के खिलाफ संघर्ष से

करते हैं तो आश्चर्य नहीं होना चाहिए! लैंगिक समानता के लिए संघर्ष में लड़कियां अभी पीछे हैं और अभी बहुत सी लड़कियां हमें लड़नी होंगी क्योंकि अभी कुछ लोगों को छोड़कर हर कोई ईमानदारी से इस समानता की वकालत नहीं कर रहा है। चौदह वर्ष की पाकिस्तान किशोरी मलाला को तालिबान सैनिकों ने गोलियां मार कर धायल कर दिया। यह सिर्फ मानसिकता का धिनोना रूप नहीं तो और क्या है। मलाला का कसूर सिर्फ इतना था कि वह लड़कियों को आकाश में उड़ने के दिव्य स्वप्न दिखा रही है वह लड़कियों की शिक्षा का जोरदार समर्थन कर रही है। ये है लैंगिक समानता की कड़वी सच्चाई एक लेखक के लिए अब चिंतन के लिए मुद्दे सोचने नहीं पड़ते, बस कुछ मुट्ठी भर गैर जिम्मेदार था फिर बहुत बड़े जिम्मेदार व्यक्ति कई तरह के ब्यान दे देते हैं और फिर आलोचना में बोलने या लिखने को जरूरी हो जाता है ताकि सही स्थिति हर आदमी को मालूम हो सके। हरियाणा के पूर्व मुख्यमंत्री व इंडियन नेशनल लोकदल के अध्यक्ष ओम प्रकाश चौटाला ने खास पंचायतों की हां में हां मिलाते हुए यह कह डाला कि 15 साल में लड़कियों की शादी कर देनी चाहिए ताकि लड़कियां बलात्कार से बच सकें। यह हरियाणा के एक पूर्व मुख्यमंत्री का इस तरह का गैर जिम्मेदाराना और शर्मनाक बयान बेटियों के प्रति उनकी घटिया मानसिकता को दर्शाता है। एक तरफ हम पहला अंतराष्ट्रीय बालिका दिवस मना रहे थे। और दूसरी ओर एक बर्जुग

हो चुका मुख्यमंत्री ऐसी दकियनुसी बातें कर रहा है । ये हमारे देश की मानसिकता व लैंगिकता की कड़वी सच्चाई । हिमाचल की खास पंचायत की मानसिकता व चाहे कैसी भी हो लेकिन ये सब बालिकाओं के पक्ष में नहीं है । हरियाणा जैसे राज्य पहले ही लिगांनुपात की चिंता जनक स्थिति से गुजर रहा है इसी तरह भारत वर्ष में कन्या भूण हत्या की जैसी सामाजिक बुराई चारों ओर बच्चियों के विपक्ष में फैल रही है । अगर इस वक्त चिंतन करना ही है तो इस बुराई को खत्म होने के बारे में होना चाहिए इसी तरह भारत के आठ राज्यों में 50 प्रतिशत से ज्यादा लड़कियों की 18 साल से पहले ही शादी कर दी जाती है इसी तरह दहेज हत्याओं में भी बहुत से औरतें जिदां जला दी जाती है । भारत में औरतों के खिलाफ ऐसी मानसिकता को खत्म करने के लिए राज्य व केन्द्र सरकारों को अभी बहुत अधिक काम करने की जरूरत है महिला साक्षरता में भी अभी भी हम पुरुष साक्षरता से काफी पीछे हैं । भारत में सैकड़ों अन्य समस्याएं भी बच्चियों के लिए मुसीबत बनी है जिस से प्रबुद्ध समाज चिंतन शील है और बच्चियों के उत्थान के लिए कार्यरत है, लाखों संस्थाएं बच्चियों के उत्थान व उनके उत्पीड़न को रोकने के लिए जी जान लगा रही है सरकारें भी पूर्णतया इस ओर कार्यरत है बलात्कार जैसी धटनाओं के दोषियों को पकड़ना, उनको कानूनी रूप से दंडित करना कानून व्यवस्था को चाक. चौबंद करना यही एक जिम्मेदार सरकार का फर्ज है और दूसरी ओर

शर्मनाक बातें करना महिलाओं के घावों पर नमक छिड़कने से कम नहीं है ।

**डॉ. शशी पूनम  
सह-आचार्य और विभागाध्यक्ष  
कानून विभाग**

## बेटी

क्या किस्मत लेकर आती है बेटी,  
इस संसार में आने से पहले गर्भ में ही मार दी  
जाती है बेटी,  
क्या किस्मत लेकर आती है बेटी,  
पहले माता पिता द्वारा डांटी जाती है बेटी फिर  
सास ससुर के ताने खाती है बेटी,  
कितनी ही उन्नति कर जाये फिर भी सबके  
सामने झुक जाती है बेटी,  
अरमान दिल में सजाती है बेटी परन्तु चाहते हुए  
भी पूरे नहीं कर पाती है बेटी,  
घर से बाहर जाने पर देरी से लौट कर आने पर  
शक की नजर से देखी जाती है बेटी,  
क्या किस्मत लेकर आती है बेटी,  
संघर्ष भरे जीवन से गुजर कर बड़ी होती है बेटी,  
जुदा कर दी जाती है बेटी,  
क्या किस्मत लेकर आती है बेटी,  
जुदाई का हर गम सहती है बेटी ।

**पूनम कुमारी शर्मा  
एम.एससी. गणित दूसरा समेस्टर**

## माँ

माँ की ममता सबसे अनमोल है,  
इसका है न कोई मोल ।

प्यार से भरे हैं इसके बोल,  
 माँ की ममता सबसे अनमोल ।  
 माँ है मेरी पहली गुरु,  
 नाम है इसका पहला शुरु ।  
 प्यारी प्यारी इसकी बोली,  
 लेरी गाकर हमें सुलाती ।  
 माँ को ममता सबसे अनमोल  
 माँ है मेरी प्यारी प्यारी,  
 आँखें मोती सी गोल-गोल ।  
 सुबह उठकर करो इसे प्रणाम,  
 हमेशा करो माँ का मान ।

प्रियंका ठाकुर  
 बी.टेक. छठा समेस्टर

### कविता

बोलता है तो पता लगता है,  
 जख्म उसका भी नया लगता है ।  
 रास आती तन्हाई भी  
 एक-दो रोज बुरा लगता है,  
 कितने जालिम है ये दुनिया वाले  
 घर से निकलो तो पता लगता है ।  
 आज भी वो नहीं आने वाला  
 आज का दिन भी नया लगता,  
 बोझ दिल पे बहुत हैं लेकिन मुस्कुरा देने में क्या  
 लगता है ।

विंकात लखरवाल  
 बीबीए चौथा समेस्टर

### मैं बोझ नहीं हूँ

शाम हो गई अभी तो घुमने चलो न पापा  
 चलते-चलते थक गई कंधे पर बिठा लो न पापा  
 अँधेरे से डर लगता सीने से लगा लो न पापा  
 मम्मा तो सो गई  
 आप ही थपकी देकर सुलाओ न पापा  
 स्कूल तो पुरी हो गई  
 अब कॉलेज जाने दो न पापा  
 पाल पोष कर बड़ा किया  
 अब जुदा तो मत करो न पापा  
 अब डोली में बिठा ही दिया तो  
 आँसु तो मत बहाओ न पापा  
 आप की मुस्कान अच्छी है  
 एक बार मुस्कराओ न पापा  
 आप ने मेरी हर बात मानी  
 एक बार और मान जाओ न पापा  
 इस धरती पर बोझ नहीं मैं  
 दुनिया को समझाओ न पापा!

सुषमा  
 बीबीए छठा समेस्टर

### कुछ सीखो

पीड़ा में हंसना सीखो,  
 मुश्किल में चलना सीखो ।  
 लक्ष्य पर अड़ना सीखो,  
 गिरकर संभलना सीखो ।  
 झुककर अकड़ना सीखो,  
 विनम्र होकर बढ़ना सीखो ।  
 प्यार से बतियाना सीखो,

मुस्कुराकर रिझाना सीखो ।  
 श्रम कर कुछ बनना सीखो,  
 दिल खोल कर दान करना सीखो ।  
 गरीब पर दया करना सीखो,  
 जमकर कमाना सीखो ।  
 अमीरी में झुकना सीखो,  
 जिंदगी में संयम रखना सीखो ।  
 हारकर जीतना सीखो,  
 प्रयासों को जारी रखना सीखो,  
 कुछ तो डॉ० मनीष खन्ना सर से सीखो ।

दीपक शर्मा  
 बीबीए चौथा समेस्टर

### बेटी बचावा बेटी पढ़ावा

मैं ता नन्हीं जेई जान,  
 बनने ते पहला मत मिटा मेरा नामो निशान ।  
 सुनी लया मेरी ये पुकार,  
 दिखणा दया मिजों संसार ।  
 मैं बनना तुसां दे अंगने दी मुस्कान,  
 करना दया मिजों रोशन ऐ जहान ।  
 आवा मिली कने बचाएँ मुस्कान,  
 आणे वाली बिटियां दी बढ़ाएँ शान ।

बी.एस.राणा  
 डिप्टी रजिस्ट्रार

### चला असा हुण कालेज जाणा

मेरे दोस्तो सब सूणी लेया,  
 चला असां हुण कालेज जाणा !  
 कालेज च पढना लिखणा,  
 कन्ने अपने आपयो खरा बनाणा !

पढी लिखी करे कुछ बाणना,  
 निता बुदु ही रही जाणा !  
 गप्पा मारी करे नी वक्त गुआणा,  
 पढना कैन पढ़ाईया पर पूरा घ्यान लगाणा !  
 पढी लिखी करी बडा बणना,  
 कनें नौकरिया जोगी होई जाणा !  
 पिछे ते असां कजो पछताणा,  
 खरा गलाया याद रखी लेणा!  
 पढ़गे ता असां कजो धबराणा,  
 पढ़ी करे असां अफसर बनी जाणा !  
 खरा खाणा कन्ने खरे किते लगयो सोणा,  
 फिरी वादे च कजो रोणा !  
 मेरे दोस्तो सब सूणी लेया,  
 चला असां हुण कालेजां जाणा !

लीजा  
 बीएएलएलबी चौथा समेस्टर

### कल का भविष्य

कल का भविष्य है बच्चे,  
 जो है नादान उम्र के कच्चे,  
 हो चुके है नशे में चूर,  
 तो क्या करेंगे भ्रष्टाचार दूर,  
 नहीं रहे उनमें आदर सम्मान,  
 तभी कहते है कितना बदल गया इन्सान !!  
 बच्चों में नहीं रहा शिष्टाचार,  
 तो कैसे सुधारेंगे जो पडे है लाचार,  
 दिल में नहीं रही देश के प्रति भावना,  
 अगर आए देश में मुसीबत तो वहां से भागना,  
 यहीं है भारत देश की शान,  
 जो कहलाता था एक दिन महान,

देश को जो खुद बना रहे है शमशान,  
यह सोच कर होते है हम परेशान !!  
सच्चाई है ये देश की,  
बच्चे हो गए है नादान,  
“भारत” में जन्में कई कांतिकारी महान,  
जिन्होंने दी देश के प्रति जान,  
अब बच्चे नहीं रहे वो महान,  
जो रखते थे देश की आन,  
पढ लिखकर बन चुके है विद्वान,  
देश के प्रति फिर भी है अनजान,  
ऐसे ही है जिनके अरमान,  
तो क्या बना पाएंगे देश को महान !!  
अपनी ही बुरी आदतों पर है बेकाबू ,  
करनी जब समाज सेवा तो बनते है बाबू ,  
अपनों में नहीं रहा अब भाईचारा,  
गुलाम बना देना चाहते है देश दोबारा,  
मजाक नहीं यह सच्चाई है,  
जो देश में बुरी तरह से छाई है,  
बच्चे ही है कल की शान,  
जिन्होंने बचानी है देश की शान !!  
बच्चों में ही हो यदि देश के प्रति भावना,  
तो कोई देश पर बुरी नजर उठा के देखना,  
अगर रहे बच्चे ही बेफिक्र,  
तो कल होगा बुरा यह लेना लिखकर,  
समाज की बुराइयों को नजरअंदाज करते है बच्चे,  
आवाज नहीं उठाते देश के प्रेमी बनते है सच्चे !!

“सुधारना होगा यह कल हमारा, तभी कहेंगे

हिन्दुस्तान हमारा “

सौरभ ढटवालिया  
बी.टेक. चौथा समेस्टर

## धीरे धीरे विलुप्त होते रीति रिवाज

हर क्षेत्र के रिति रिवाज उस क्षेत्र की समृद्ध संस्कृति की पहचान होते हैं। ठीक उसी प्रकार हमारे हिमाचल प्रदेश की भी समृद्ध संस्कृति थी, जिसमें हिमाचल प्रदेश की अपनी पहचान हुआ करती थी। लेकिन बदलते परिवेश में अब हिमाचल प्रदेश में भी विवाह शादियों के रस्मों रिवाज पश्चिमी संस्कृति में ढलते नजर आ रहे हैं। विवाह शादियों में पहले यहां आपसी भाई चारे की एक जुटता देखने को मिलती थी लेकिन अब ऐसे समारोह केवल अपने परिवार तक सीमित हो कर रह गए हैं। आधुनिकता के दौर ने पुराने रीति रिवाजों को खत्म नहीं किया बल्कि अब भाई चारे की जगह मजदूरों से शादियों के कार्य को निपटाया जा रहा है। पूर्व में शादियों का आयोजन इस प्रकार होता था।

1. **समदां** – शादी के कुछ माह पहले धाम को पकाने के लिए ईंधन के रूप में लकड़ी काटी जाती है जिसे समधां या कुछ स्थानों पर छेई कहा जाता है, इसके लिए शादी वाले घर में एक विशेष प्रकार का समारोह होता है। समधां के समारोह में गांव के लोग, दूल्हा व दूल्हन पक्ष वाले लोग लकड़ी काटने में मदद करते हैं। समदां के समारेह से ही घर में शादी की शुरुआत मानी जाती है। लेकिन अब यह प्रथा आधुनिकता आने की वजह से लुप्त होने की कगार पर है।

लोग अब गैस इंधन का प्रयोग शादियों में ज्यादा कर रहे हैं ।

2. **बबरू**— समदां कार्यक्रम के उपरान्त सभी महिलाएं मिलकर दूल्हा दूल्हन के घर शगुन के गीत गाते हुए मीठे बबरू और मिष्ठान युक्त भाजी पकाते हैं । इसी पाजी व बबरू को मिष्ठान के रूप में दुल्हा दुल्हन पक्ष के लोग अपने सगे संबंधियों और रिश्तेदारों में बांटकर विवाह के लिए अमंत्रित करते हैं । अब इस प्रथा का स्थान मोवाइल फोन,मंहगी मिठाई व मंहगें निमंत्रण पत्रों ने ले लिया है । आधुनिकता की दौड़ में यह प्रथा भी लुप्त होने लगी है ।

3. **चौल छंडाई**— शादी के लजीज धाम के पीछे कई चीजों का हाथ होता है । कई लोगों की मेहनत होती है चावल साफ करने की प्रक्रिया को ही चौल छंडाई चावल साफ करना कहा जाता है यह कार्यक्रम शादी के कुछ दिन पहले गांव की औरतें सभी मन मुटाव भूलाकर ,विवाह के गीत गाते हुए चावलों को साफ कराती हैं । इसे शगुन भी माना जाता है । लेकिन अब यह रीति रिवाज नाम मात्र का रह गया है। आधुनिकता की दौड़ में आज यह प्रथा केवल टेकेदारी पर निर्भर हो गई है ।

4. **डोली**—लम्बे समय से दूल्हा व दूल्हन को शादी के दौरान डोला या डोली या पालकी में ले जाने की परम्परा रही है । पूर्व में बिना डोली के बारात शोभा नहीं देती थी ।

उस दौर में जब यातायात के साधन नहीं थे, बारातें पैदल मीलों सफर तय करती थी, लेकिन दूल्हा व दूल्हन डोला या डोली पालकी में सवार होते थे, जिसे कहार पालकी उठाने वाले उठाकर मीलों दूरी तय करते थे । अब यह रिवाज कांगड़ा जिले के कुछ गांवों को छोड़कर गुजरे जमाने की बात बन गया है ।

5. **बटणा-हल्दी रस्म**— विवाह में बटणा हल्दी लगाने को महत्वपूर्ण माना गया है। यह परम्परा पूर्व से बड़े शौक से निभाई जाती रही है । शादी में दूल्हा दूल्हन दोनों को यह रस्म निभनी पड़ती है । इस रस्म के उपरान्त दूल्हा दूल्हन को घर से बाहर नहीं निकलने दिया जाता है । बटणा हल्दी विशेष प्रकार की प्राकृतिक चीजों को चेहरे पर लगाकर चेहरे की खुवसूरती को बढ़ाया जाता था, लेकिन अब बेतहासा ब्यूटी प्रोडक्ट्स आने से व जगह जगह ब्यूटी पार्लर खुलने से यह रस्म लुप्त हो रही है ।

पूर्व में शादी के समारोह कई कई दिन चलते थे, जिसमें पूरे रीति रिवाजों को पूरी तमन्ना से तमाम गांववासियों और रिश्तेदारों की मौजूदगी में आनंदम्य होकर निपटाया जाता था, लेकिन अब संस्कृति धरोहर के कई ऐसे रीति रिवाज महज दिखावे के लिए औपचारिकता भर हो रहे हैं, जोकि लुप्त होने की कगार पर खड़े हैं ।

सुरेश गुलेरिया  
सहायक पुस्तकालयाध्यक्ष

## मारा हमीरपुर

सारेयां मुलखां बिच अपणा हमीरपुर लगदा असां  
जो प्यारा हो,  
सारेयां मुलखां बिच अपणा हमीरपुर लगदा असां  
जो प्यारा हो ।  
जलवायु सारे मुलखां ते चंगी,  
पश्चिम च उना पूर्व च मंडी,  
दक्षिणा च प्यारा बिलासपुर बसदा,  
उतरा च प्यारा कांगडा हो ।  
दियोट सिद्धा रा मंदिर , इस बिच मारकण्डा बडा सुन्दर,  
इस बिच गसोता मेला,  
झिन्यारी दिखने आदां सारा जग हो ।  
सारेयां मुलखां बिच अपना हमीरपुर लगदा असां  
जो प्यारा हो.....!!!

लीजा  
बीएएलएलबी चौथा समेस्टर

# Diwali Fest-2015



*Students Performing Ganesh Vandana*



*Students Making a Pose after Performing a Dance on 'Radha Krishna'*



*A Flower Stall by Students*



*Visiting of Diwali Stall by Prof. M.R. Sharma, Dean Academic Affairs*



*Participants of 'Mehndi Competition'*



*Participants of different Stalls in a Group Photo*

# Glimpses of Annual Sports Meet



*Chief guest Dr. S.N. Jha, Director Sports IIT Mandi with Vice Chancellor, Registrar and Consultant & Advisor Sports at the time of Opening Ceremony*



*March Past by Participants of Different Events*



*Introducing Participants to the Chief Guest*



*Inter-departmental Bollyball Match*



*Teams during a Cricket Match*



*Winner Cricket Team with Chief Guest*



*In Progress Badminton Match*



*Teams Struggling to Win a Kabaddi Match*



*Ongoing Table-Tennis Match*



*Athletes during a 100 Meter Race*



*DSW Dr. Jitender Kumar giving away Prizes to the Winners*



*Winners in a Group Photo with the Chief Guest of the Closing Ceremony Sh. K.S. Thakur Consultant & Advisor Sports*

# National Science Day



*Lamp Lighting by Hon'ble Vice Chancellor*



*Ongoing Debate on the Theme 'Make in India'*



*Students Explaining Working Model to Vice Chancellor*



*Judges Visiting Working Model Exhibition*



*Students with Posters on the Theme 'Make in India'*



*Winner Receiving Prize from Vice Chancellor*

# Highlights of Other Campus Activities



Winners of 5<sup>th</sup> District Level TT Championship with Dr. Sanjeev Sharma, Sh. K.S. Thakur and Faculty Members



Chief Guest Dr. Kamlesh Dutta from NIT Hamirpur Visiting the Hand Craft Exhibition



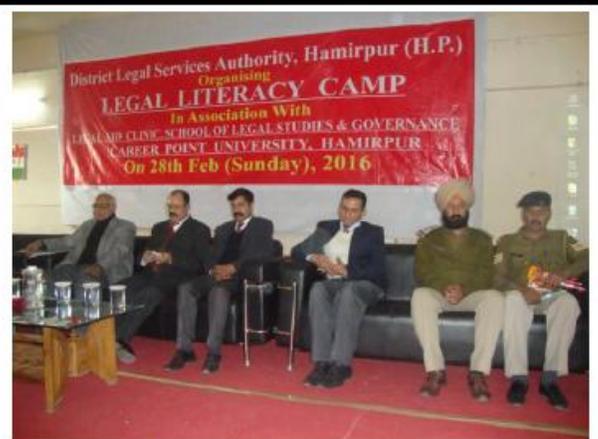
Blood Donation Camp Organized by HDFC Bank



IAS (Rtd) Dr. K.R. Bharati Delivering a Lecture on Preparation of Civil Services Examination



Signature Campaign by Law Department at Shimla on the Theme 'Beti Hai Anmol'



Legal Literacy Camp Advisors with Vice Chancellor



# *CPU at a Glance*

## School of Basic and Applied Sciences



**Chemistry Laboratory**



**Physics Laboratory**

## School of Management and Business Studies



**Computer Laboratory**

**Communication Laboratory**

## School of Engineering and Technology





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Praveen & Vinesh  
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