

CURRENT AFFAIRS SNIPPETS : OCTOBER 2016

STATE

Uttarakhand High court bans sale of whitener

The Uttarakhand High Court on 25 October 2016 ordered a complete ban on the sale of whitener in the state. The decision came following the death of a teenager (14-year-old) in Bhowali town of Nainital district after he sniffed an excess of whitener for a kick. Besides, the high court also ordered that items such as Feviquick, Iodex should not be sold to children below 18 years of age in view of prevalent abuse of these among teenagers.

Whiteners are mainly used for erasing ink on paper and as shoe whitener. It contains volatile aliphatic petroleum hydrocarbons such as toluene and trichloroethane which are intoxicating chemicals. In whitener-inhalation addiction, people inhale the whitener i.e. intoxicating chemicals present in it. By doing this for some time, it makes the sniffer dizzy, high and disconnected. It has a hallucinatory effect on the sniffer. Thus, it is the first step to drug addiction or alcoholism. The whitener abuse is generally seen among the youths. The problem has been compounded by its easy procurement, negligible cost and its lack of odour.

Microsoft launches India's first Cybersecurity Engagement Center in Delhi

Technology giant Microsoft has launched its first full-scale Cybersecurity Engagement Center (CSEC) in Delhi, which will help the government and the private sector organisations deal with cyberattacks. It is first-of-its-kind Cybersecurity Centre in India and overall 7th in the world including in Tokyo, Seoul, Beijing, Singapore, Berlin and Washington DC. An initiative like this is especially important at a time when India is dealing with large-scale cyberattacks on four leading banks' debit cards that has affected as many as 3.2 million customers.

The CSEC will bring together Microsoft capabilities to foster deeper Cybersecurity collaborations with public and private sector organisations. The centre will also build a trusted and secure computing environment, a critical enabler for India's digital transformation. The CSEC will offer their expertise and work with partners to detect and take evasive measures to tackle cyber threats in India. The centre is a part of Microsoft Consultancy Services (MCS), a dedicated response team based in India that will offer

security consultancy services to business organisations. It will offer services such as cyber monitoring, threat detection using machine learning based technology and take evasive measures to combat cyber threat.

Himachal Pradesh declared India's second Open Defecation Free State

The State of Himachal Pradesh on 28th October 2016 was officially declared Open Defecation Free (ODF). Every individual household in the state has functional toilet under the 'Swachh Bharat Mission'. With this, Himachal Pradesh becomes the second State in the country after Sikkim to achieve the feat. However, among bigger states Himachal Pradesh is the first state to become ODF. With this, Himachal Pradesh has successfully achieved a total rural sanitation coverage of 100% in the State, with all 12 out of 12 districts in the State being both, declared as well as verified, as ODF. This status will further entitle Himachal Pradesh to receive World Bank funding under Rs 9,000 crore project to sustain sanitation campaign.

Open defecation means people defecate in open spaces such as fields, bushes, forests, open bodies of water rather than using the toilet. Open Defecation is important factor in causing various diseases like intestinal worm infections, diarrhoea, polio, hepatitis etc. It can be prevented by creating awareness about adverse impact of open defecation on health, changing behavioural habit of people, building of community toilets etc.

Telangana Government creates 21 new districts

Telangana on 11 October 2016, the auspicious occasion of Vijaya Dasami, has created 21 new districts. With this reorganisation, the total number of districts in the State went up to 31 from 10. The 21 new districts are: Siddipet, Jayashankar, Jangaon, Jagtial, Yadadri, Warangal (Rural), Peddapally, Sangareddy, Kamareddy, Mancheriyal, Kothagudem, Vikarabad, Rajanna, Asifabad, Suryapet, Wanaparthy, Nirmal, Mahabubabad, Nagarkurnool, Jogulamba and Malkajgiri. Earlier 10 districts are: Hyderabad, Mahabubnagar, Ranga Reddy, Karimnagar, Medak, Adilabad, Warangal, Nizamabad, Khammam and Nalgonda.

Earlier, Telangana government had decided to issue an ordinance to amend some provisions of the Telangana District (Formation) Act, 1974 to abridge the process

for increasing the number of districts in state beyond 27. Besides, formation of new districts it also has called for reconstitution of revenue divisions and other administrative units along with the new districts. Telangana, which came into existence on 2 June 2014 as the 29th State of India, started out with 10 districts. On an average, each district will have population of two to four lakh families, except Hyderabad where the number is much large. Through small districts, state government seek to deliver people-centric welfare schemes and governance to all citizens in the state with greater focus. This system has been adopted based on governance models of Scandinavian countries.

India's first Medipark will be set up in Tamil Nadu

India's first Medipark (Medical Park) will be set up in Tamil Nadu at Chengalpattu near Chennai, Tamil Nadu through a Special Purpose Vehicle (SPV). It will boast of the first medical devices manufacturing park in the country. For this purpose, HLL Lifecare Ltd, a Mini Ratna PSU under Union Ministry of Health & Family Welfare, will sub-lease 330.10 acres of land at Chengalpattu. The shareholding of HLL in the project will be above 50 percent.

HLL will sublease 330.10 acres of land to investors, through a transparent bidding process to investors desirous to set up manufacturing units for medical equipment and devices. It will be developed in phases, spread over seven years for completion. In the first phase, physical infrastructure will be developed and plots will be leased from third year onwards. In the initial phase, the land cost to the qualifying entrepreneurs from Medical Device and Equipment, Manufacturing Industry will be at a subsidized rate. Knowledge management center will be developed in the second phase, with grants and assistance from departments, which funds similar initiatives.

The Medipark project will boost the local manufacturing of hi-end products at a significantly lower cost, resulting in affordable healthcare delivery to a large section of people. It will play a significant role in the development of medical devices and technology industry and allied disciplines under the Make in India initiative. Help in providing in affordable healthcare delivery, particularly in diagnostic services to a large section of people.

The first of its kind Medipark project will lay roadmap to reduce the dependence on imports of medical equipment and devices. It will reduce the dependence on imports and create a strong base for the growth

of indigenous and domestic industry by providing access to state of art infrastructure and technology.

Rajasthan becomes first state to adopt LED street lights under all ULBs

Rajasthan has become the first state in India to adopt Central Government's Street Lighting National Programme (SLNP) in all its urban local bodies (ULB). Under this programme, around 5 lakh conventional street lights were replaced with LED street lights across the state. The newly installed LED streetlights in Rajasthan have led to brighter streets, feeling of enhanced safety and security among the residents. The project was funded by Energy Efficiency Services Limited (EESL), a Public Energy Services Company under the administration of the Union Ministry of Power. Through implementation of this project, 152 million units of energy savings has been achieved so far have been and cost saving of Rs. 60 lakh daily to some municipalities. The energy saving has resulted in reduction of 225 tonnes of CO2 per day. EESL conducts appropriate quality checks right from the bidding stage to the field level. This has resulted in the LEDs' overall technical fault being less than 2% in the 13lakh lights installed by EESL in the country. The SLNP was launched in January 2015. Under the programme around 3.5 crore conventional street lights will be replaced with smart and energy efficient LED street lights by March 2019.

Delhi Police launches Mobile App for senior citizens

The Delhi Police has launched a mobile application "Delhi Police Senior Citizen" for senior citizens to enable them to reach out to the police quickly in emergency situations. It will serve as an aid to the elderly in times of distress or in case of medical emergencies. The facility was launched by Delhi Lieutenant Governor Najeeb Jung at a function in New Delhi on the occasion of International Day of Older Persons (observed on October 1).

The application has an SOS button integrated with a dedicated existing helpline for Senior Citizen – 1291. The app has been designed with features that allow users to press the SOS button in case of an emergency. The call will reach a dedicated station. If the user is unwell, an ambulance will be sent. In case for any other reason, a beat constable will be asked to contact the user. In case, the user does not respond to operator's calls, a beat constable will swiftly visit the house to verify the reason of distress. The application will be available on Google Play Store.

Jharkhand becomes first state to implement Direct Benefit Transfer in Kerosene

Jharkhand on 1 October 2016 has become the first state in the country to implement Direct Benefit Transfer (DBT) in Kerosene Scheme. The scheme is being implemented in four identified districts of the State namely Chatra, Hazaribagh, Khunti and Jamtara.

Under the DBTK scheme, PDS kerosene will be sold at non-subsidised price and the subsidy will be directly transferred to consumers directly into their bank accounts. This initiative was launched by Union Petroleum and Natural Gas Ministry on the lines of a similar DBT programme for LPG subsidy. It aims at rationalising subsidy based on the approach to cut subsidy leakages but not the subsidy.

The scheme aims at eliminating subsidised Kerosene from the supply chain for targeting the beneficiaries and end pilferage and black-marketing. It also aims at cutting down adulteration of cheap cooking and lighting fuel with diesel.

NATIONAL

Union Government launches UDAN Scheme for Regional Air Connectivity

The Union Government on 21 October 2016 has launched the regional air connectivity scheme UDAN (Ude Desh ka Aam naagrik) which seeks to get more people to fly in the smaller towns. The Civil Aviation Minister Ashok Gajapathi Raju who launched the scheme in New Delhi said the scheme is expected to be rolled out by January 2017 and will be in operation for a period of 10 years.

The UDAN scheme seeks to provide connectivity to un-served and under-served airports of the country through revival of existing air-strips and airports. It aims to increase ticketing volume from 80 million to 300 million by 2022. It is a unique market-based mechanism to develop regional connectivity, under which Airlines will bid for seat subsidies. Airline operators will bid for up to 40 subsidised seats and minimum seats will be 9. There will be 50 percent seats on market based pricing. The scheme ensures affordability, connectivity, growth and development. This first-of-its-kind scheme globally will create affordable yet economically viable and profitable flights on regional routes so that flying becomes affordable to the common man even in small towns.

Under it, airlines will have complete freedom to enter into code sharing with larger airlines for connectivity and they will be exempted from various airport charges. Airlines will have exclusive rights for three years to fly on a particular regional route. On these routes

for regional flights Airfares will be capped at 2500 rupees for an hour's flight. On each such route, the minimum frequency would be three and maximum of seven departures per week. Route networks would also be encouraged under the scheme to achieve economies of scale and optimal usage of aircraft. Central and State governments and airport operators will provide a financial stimulus in the form of concessions to airlines. The mechanism of Viability Gap Funding (VGF) will be provided to interested airlines to kick-off operations from such airports so that the passenger fares are kept affordable. Regional Connectivity Fund (RCF) will be created to meet the VGF requirements under the scheme. The RCF levy per departure will be applied to certain domestic flights.

India completes nuclear triad with INS Arihant

India on 18 October 2016 completed its nuclear triad by inducting country's first indigenously-constructed nuclear submarine INS Arihant into service. With this, India becomes fourth country to have a nuclear triad i.e. capable of delivering nuclear weapons by aircraft, ballistic missiles and submarine launched missiles. Other countries having nuclear triad are Russia, United States and China. INS Arihant was formally commissioned by Navy Chief Admiral Sunil Lanba in August 2016. However, it was kept secret owing to strategic significance.

INS Arihant is nuclear submarine capable of carrying nuclear tipped ballistic missiles. Thus it belongs to class referred to as Ship Submersible Ballistic Nuclear (SSBN). Its design is based on the Russian Akula-1 class submarine. The 6000 tonne vessel was built under the Advanced Technology Vessel (ATV) project at the Ship Building Centre in the port city of Visakhapatnam. It is powered by 83 MW pressurised light water nuclear reactor with enriched uranium fuel. It will be armed with the K-15 Sagarika missiles with a range of 750 km. Later it will be armed with much longer range K-4 missiles (3,500 km range) being developed by DRDO. The vessel was launched in 2009 by then Prime Minister Manmohan Singh. Since then, it had undergone extensive sea trials and reactor on board went critical in 2013.

A nuclear triad refers to the nuclear weapons delivery of a strategic nuclear arsenal which consists of three components: strategic bombers, intercontinental ballistic missiles (ICBMs), and submarine-launched ballistic missiles (SLBMs). The purpose of having a three-branched nuclear capability is to significantly reduce the possibility that an enemy could destroy all of a nation's nuclear forces in a first-strike attack. The triad also ensures a credible threat of a second

strike, and thus increases a nation's nuclear deterrence.

India ranked 97th in 2016 Global Hunger Index

India has been ranked low 97th among the 118 countries surveyed in 2016 Global Hunger Index (GHI). The International Food Policy Research Institute (IFPRI) on 11 October 2016 released the 2016 Global Hunger Index (GHI). In 2016 GHI, India has scored low 28.5 on a 0-100 point scale of the index. It describes India's hunger situation as "serious. The index was released by the International Food Policy Research Institute (IFPRI).

The GHI is a multidimensional statistical tool used to describe the state of countries' hunger situation. It is released annually by IFPRI since 2006. The GHI, now in its 11th year, ranks countries based on four key indicators: undernourishment, child mortality, child wasting and child stunting. The 2016 report ranked 118 countries in the developing world, almost half of which have serious or alarming hunger levels. It ranks countries on a 100-point scale. Zero on the scale is the best score (no hunger), and 100 is the worst. It highlights successes and failures in hunger reduction and provides insights into the drivers of hunger. Thus, GHI aims to trigger actions to reduce hunger.

PM Narendra Modi inaugurates India Sanitation conference in New Delhi

Prime Minister Narendra Modi inaugurated India Sanitation conference (INDOSAN) in New Delhi. PM Modi in his inaugural speech highlighted need of behavioural change to achieve the dream of Swachh Bharat and also need to ensure a dirt free India like Mahatma Gandhi's Satyagraha which was instrumental for the end of colonialism.

During the conference, Prime Minister Modi also gave away cleanliness awards to Sindhudurg District (Maharashtra), Mandi district (Himachal Pradesh), Pune, Chandigarh and Mysore Municipal Corporations, Gangtok city (Sikkim), National Cadet Corps (NCC), Surat railway station, PGIMER Chandigarh, heritage site Rani ki vav in Gujarat and Kendriya Vidyalaya FRI Dehradun.

INDOSAN is envisaged as an annual national event, that brings together all stakeholders working in sanitation government, NGOs, academicians, researchers, partner agencies, corporates on one platform for a shared vision. The conference aims at bringing together all such stakeholders, will create an opportunity for collective vision, collective understanding of the key elements of the Swachh Bharat Mission

programme.

INDOSAN will discuss on all these approaches, learnings, emerging innovations for the benefit of all. Besides, each state will share their approaches most suitable to them to reach the goal of making India Open Defecation Free (ODF) by the year 2019 which marks 150th Birth Anniversary of Father of the Nation Mahatma Gandhi.

ISRO's communication satellite GSAT-18 successfully launched from French Guiana

India's latest communication satellite GSAT-18 on 6 October 2016 was successfully launched from the spaceport of Kourou in French Guiana. The satellite was launched on board of heavy duty Ariane-5 VA-231 rocket of Arianespace. It was successfully injected into a Geosynchronous Transfer Orbit (GTO). After its injection into GTO, ISRO's Master Control Facility (MCF) at Hassan took control of GSAT-18 and performed the initial orbit raising maneuvers using the Liquid Apogee Motor (LAM) of the satellite, placing it in circular Geostationary Orbit.

GSAT-18 was the 20th satellite from ISRO to be launched by the European space agency and overall 280th mission of the Arianespace rocket launcher family.

GSAT-18 is indigenously built by the Indian Space Research Organisation (ISRO). It weighs around 3,404 kgs at lift-off. It has a mission life of about 15 years. It carries 48 communication transponders to provide services in Normal C-band, Upper Extended C-band and Ku-bands of the frequency spectrum. GSAT-18 carries Ku-band beacon as well to help in accurately pointing ground antennas towards the satellite. Satellite will provide services like television, telecommunication, VSAT and digital satellite news gathering. The satellite will play important role in strengthening ISRO's current fleet of 14 operational telecommunication satellites. It will enable the continuity of the vital communication services in the country by replacing the currently ageing satellites. Master Control Facility (MCF) of ISRO at Hassan, Karnataka will control the satellite.

SBI becomes first domestic bank to open branch in Yangon, Myanmar

India's largest lender State Bank of India (SBI) on 3 October 2016 became the first domestic bank of India to open a branch in the capital city of Yangon, Myanmar. The Yangon branch is the 54th foreign branch of the SBI. Ghanshyam Srivastava will be the Chief Executive Officer of the SBI Yangon branch. This branch further extends the global presence of

India's largest lender in 37 countries through 198 offices. The Yangon branch was started after the Myanmar central bank allowed SBI to open a branch with the primary objective of extending wholesale banking services to foreign corporates.

India has been a major trading partner of Myanmar for centuries. Since the signing of India and Myanmar trade agreement in 1970, bilateral trade between two neighbours has been growing steadily and rose from US 328 million dollars in 1997-98 to US 2.052 billion dollars in 2015-16. SBI has been associated with Myanmar since 1861, when the erstwhile Bank of Bengal operated its branch in the then Rangoon. Later, as part of bank nationalisation, the operations of the Rangoon branch of SBI were taken over by the Peoples' Bank of Burma in February 1963.

INTERNATIONAL

Paul Beatty wins 2016 Man Booker Prize

Paul Beatty (54) on 25 October 2016 has won the 2016 Man Booker Prize. He won the award for his racial satire, '**The Sellout**' at a ceremony in London's Guildhall. With this he becomes the first US author to win this prestigious literary award. His novel tells the story of a young black man who tries to reinstate slavery and racial segregation in a suburb of Los Angeles. Beatty was honoured with the prize money of 50000 Euros from the Duchess of Cornwall, a trophy and a designer bound edition of his book.

Paul Beatty was born in Los Angeles in 1962. He had received an MFA in creative writing from Brooklyn College and an MA in psychology from Boston University. In 1990, Beatty was crowned the first ever Grand Poetry Slam Champion of the Nuyorican Poets Cafe. His novels are *The White Boy Shuffle* (1996), *Tuff* (2000), *Slumberland* (2008) and *The Sellout* (2015). In 2016, he was bestowed with the National Book Critics Circle Award (Fiction) for his novel *The Sellout*. The Man Booker Prize world's most prestigious English-language literary award. It was launched in 1969 and presented by the Man Group. The award promotes the finest in fiction by rewarding the very best book of the year. The prize is the world's most important literary award and has the power to transform the fortunes of authors and publishers. It carries cash prize of 50,000 pounds. The authors are shortlisted by judges from a wide range of disciplines and all with a passion for quality fiction. The 2015 Man Booker Prize was conferred on Jamaican author Marlon James for his book *A Brief History of Seven Killings*.

China's Space Lab Tiangong-2 launches Micro-Satellite Banxing-2

Tiangong-2, the experimental space lab of China has successfully launched a micro-satellite, Banxing-2 (the word means Companion Satellite with two astronauts). The two astronauts were launched into space onboard of the Shenzhou-11 spacecraft carried two astronauts on 11 October 2016. It docked with Tiangong-2 on 13 October 2016.

The micro-satellite Banxing-2 is roughly the size of a desktop printer and the media has nicknamed "Selfie Stick". It weighs 47 kilogrammes. It has series of visible light cameras, including a 25 megapixel camera and wide-angle imagers. It also has an infrared camera that is temperature-sensitive. Its mission is to take photographs of Tiangong II and the Shenzhou 11 spacecraft, which has been docked with the lab. The micro-satellite has three solar panels which generates enough power to adjust its orbit to shoot pictures of the lab and spacecraft. its predecessor, Banxing-1, accomplished the same mission for Shenzhou VII in 2008. Banxing-2 is new model of its predecessor Banxing-1 which had accomplished the same mission for Shenzhou VII in 2008. However Banxing-1 is smaller and has a higher capacity.

China successfully launches its longest ever manned mission to space

China on 17th October 2016 has successfully launched a spacecraft carrying two astronauts Jing Haipeng (50) and Chen Dong (37), in its longest-ever manned space mission, who would later join its experimental space lab orbiting the Earth as the country moved a step closer to establish its permanent space station by 2022. They were launched on board of Shenzhou-11 (heavenly vessel) spacecraft from the Jiuquan Satellite Launch Centre near the Gobi Desert in northwest China. The spacecraft was put into orbit by a Long March-2F carrier rocket.

Both astronauts will spend a month aboard an experimental space laboratory Tiangong-2 (Heavenly Palace 2). During the mission, they will conduct aerospace medical experiments, space science experiments and in-orbit maintenance with human participation. They will also undertake ultrasound tests during space travel for the first time, cultivate plants in space etc. It will be first time that Chinese astronauts will stay in orbit for medium term. Earlier in 2013, three Chinese astronauts in a manned space mission had spent 15 days in orbit and were docked with a space laboratory Tiangong 1.

Bob Dylan wins 2016 Nobel Prize in Literature

American singer-songwriter, artist and writer Bob Dylan (75) on 13 October 2016 has won the 2016 Nobel Prize in Literature. Dylan was bestowed with the precious award for **having created new poetic expressions within the great American song tradition**. He is the first American to win the prize since novelist Toni Morrison in 1993.

Bob Dylan Born as Robert Allen Zimmerman on May 24, 1941 in Duluth, Minnesota. His debut album was 'Bob Dylan' released in 1962. He had adopted the name Dylan after the poet Dylan Thomas. As a musician, he has sold more than 100 million records, making him one of the best-selling artists of all time. He has 58 singles, 37 studio albums, 11 live albums and 6 collaborations to his name. Besides, his lyrics have incorporated various political, social, philosophical and literary influences. His early songs such as **Blowin' in the Wind** and **The Times They Are a-Changin** became anthems for the American civil rights and anti-war movements. He has published six books of drawings and paintings, and his work has been exhibited in major art galleries.

He has also received numerous awards including eleven **Grammy Awards**, a **Golden Globe Award**, and an **Academy Award**. The Pulitzer Prize jury in 2008 awarded him a special citation for his profound impact on popular music and American culture, marked by lyrical compositions of extraordinary poetic power.

The Nobel Prize in Literature is one of the five Nobel Prizes established by the will of Alfred Nobel in 1895. The Prize has been awarded since 1901. It is one of the five Nobel Prizes established by the will of Alfred Nobel in 1895. It is awarded annually to an author from any country who has produced the most outstanding work in an ideal direction in the field of literature. A Literature Nobel Prize laureate earns a gold medal, a diploma bearing a citation, and a sum of money. The amount of money awarded depends on the income of the Nobel Foundation that year.

Kersti Kaljulaid elected as first female President of Estonia

The parliament of Estonia on 3 October 2016 has elected Kersti Kaljulaid (46) as the President of the Baltic country. She will be the first woman to become President of Estonia since the country declared independence in 1918 and again in 1991. She had won vote 81-0, with 20 members absent in the parliamentary voting. She will be Estonia's fifth President and is due to take office on 10 October 2016. She is also the youngest person to get elected as President of Estonia.

Kersti Kaljulaid graduated from Tallinn Secondary School no. 44 in 1987. In 1992, she graduated from University of Tartu cum laude as a biologist. In 2001, she graduated University of Tartu with an MBA in business management. In 1996–1997, she worked as a sales manager in state-owned telecom Eesti Telefon. In 1997–1998, she worked as a project manager in Hoiupanga Investeeringute AS. In 1998–1999, she worked in the investment banking department of Hansapank Markets. In 1999–2002, she worked as the economic advisor of Estonian Prime Minister Mart Laar. Since May 2011, she has been the representative of Estonia in the European Court of Auditors.

Japan's Yoshinori Ohsumi wins 2016 Nobel Prize in Medicine

Yoshinori Ohsumi (71) of Japan has won the 2016 Nobel Prize for physiology or Medicine for his pioneering work on autophagy. With this he becomes the 23rd Japanese national to win a Nobel prize and overall the sixth Japanese medicine Nobel laureate. Mr. Ohsumi had received a PhD from the University of Tokyo in 1974. Currently, he is a professor at the Tokyo Institute of Technology (TIT).

Autophagy is the natural, destructive mechanism that disassembles, through a regulated process, unnecessary or dysfunctional cellular components. It allows the orderly degradation and recycling of cellular components. During this process, targeted cytoplasmic constituents are isolated from the rest of the cell within a double-membraned vesicle known as an autophagosome. The autophagosome then fuses with a lysosome and the contents are degraded and recycled. Three different forms of autophagy are commonly described as macroautophagy, microautophagy and chaperone-mediated autophagy. It was first observed by Belgian scientist Christian de Duve who had won Nobel Medicine Prize in 1974 for it. Christian de Duve had coined the term "autophagy", which comes from the Greek meaning self-eating.

Yoshinori Ohsumi's discoveries in Autophagy have led to a new paradigm in the understanding of how the cell recycles its content. In his research, Mr. Ohsumi had used baker's yeast to identify genes essential for autophagy. He explained the mechanisms for autophagy in yeast and showed that similar sophisticated machinery is used in human cells. Ohsumi's research had located the genes that regulate this self-eating process and also related that errors in these genes can cause disease. His findings have opened new path to understand importance of autophagy in many physiological processes, such as how body adapts to starvation or responds to infection. It has

helped to establish links to Parkinson's disease, type 2 diabetes and other disorders that appear in the elderly. The Nobel award for medicine is given to persons whose discoveries have significantly enhanced the understanding of life or the practice of medicine. The winners are chosen by the Nobel Assembly at the Karolinska Institute and are always announced before the Nobel Prize for other categories. The prestigious award carries prize money of 8 million Swedish kronor or 1.1 million dollars. It is one of five Nobel Prizes established by Swedish chemist Alfred Nobel, the inventor of dynamite in 1895.

David Thouless, F Duncan M Haldane and Michael Kosterlitz win 2016 Nobel Prize in Physics

British trio of physicists David Thouless, F Duncan M Haldane and Michael Kosterlitz on 4 October 2016 have won the 2016 Nobel Prize in Physics. David J Thouless is a Emeritus Professor at the University of Washington, Seattle, USA. While, F. Duncan M. Haldane is the Eugene Higgins Professor of Physics at Princeton University, USA and J Michael Kosterlitz is the Harrison E. Farnsworth Professor of Physics at Brown University, USA. They will share the 8 million Swedish kronor prize. The Royal Swedish Academy of Sciences has selected them for their individual researches on theoretical discoveries of topological phase transitions and topological phases of matter. Their research work centres on Topology, a branch of mathematics involving step-wise changes like making a series of holes in an object. For example when matter goes from solid to liquid to gas different phases are obvious, but materials can also undergo topological step changes which affect their electrical properties. Such changes can be seen in a superconductor, which at low temperatures conducts electricity without resistance. These trio physicists had worked in the field of condensed matter physics and have discovered totally unexpected behaviours of solid materials. Based on their individual discoveries they came up with a mathematical framework in the field of topology to explain these weird properties. The discoveries have paved the way for designing new materials with all sorts of novel properties that have significant potential revolutionize advances in electronics and future quantum computers.

Jean-Pierre Sauvage, J Fraser Stoddart and Bernard L Feringa win 2016 Nobel Prize in Chemistry

Trio of Jean-Pierre Sauvage, J Fraser Stoddart and Bernard L Feringa on 5 October 2016 have won the prestigious 2016 Nobel Prize in Chemistry. The trio were bestowed with the prestigious award for the

design and synthesis of molecular machines. These three laureates will share the 8 million Swedish kronor (around \$933,000) prize equally.

Jean-Pierre Sauvage is a French coordination chemist. He had taken first step towards a molecular machine in 1983, after he successfully linked together two ring-shaped molecules to form a chain. Sir James Fraser Stoddart is a Scottish chemist. In 1991, he threaded a molecular ring onto a thin molecular axle and successfully demonstrated that the ring was able to move along the axle. Bernard L Feringa is a synthetic organic chemist. He is the first person to develop a molecular motor. In 1999 successfully designed molecular rotor blade to spin continually in the same direction. He also had designed nanocar using molecular motors.

Molecular machines or nanomachines are the world's smallest machines. Their working is inspired by proteins that naturally act as biological machines within cells. Molecular machines are discrete number of synthetic molecular components fused together. They produce quasi-mechanical movements in response to specific external stimuli such as light or temperature change. Molecular machines can be put to work as tiny motors, pistons ratchets or wheels to produce mechanical motion and can move objects many time their size.

Molecular machines can be developed to function as artificial muscles to power tiny robots or even prosthetic limbs in case of Bionics. They may lead to developments like new sensors, materials and energy storage systems. They can be used to deliver drugs within the human body directly to target a specific area of tissue to medicate or cancerous cells. They can be used to design of a molecular computer which could be placed inside the body to detect disease even before any symptoms are exhibited.

Oliver Hart and Bengt Holmstrom win 2016 Nobel Prize in Economics

Two economists Oliver Hart and Bengt Holmstrom have won the 2016 Nobel Memorial Prize in Economic Sciences. Both of them will share 8 million kronor, or about \$930,000. Royal Swedish Academy of Sciences has selected them for their contributions to contract theory which tells how contracts help people deal with conflicting interests. Their individual theories on contract theory are valuable to the understanding of real-life contracts and institutions, as well as potential pitfalls in contract design. For example, contract theory can be used to analyze performance-based pay for CEOs or deductibles and co-pays for insurance. Oliver Hart: He was born in 1948 in London,

UK. He holds Ph.D. from Princeton University, US. Presently, he is Andrew E. Furer Professor of Economics at Harvard University, US. Bengt Holmström: He was born in 1949 in Helsinki, Finland. He holds Ph.D. from Stanford University, US. Presently he is Paul A. Samuelson Professor of Economics and Professor of Economics and Management at Massachusetts Institute of Technology (MIT), US. About Nobel Memorial Prize in Economic Sciences In 1968, Sweden's central bank had added the economic sciences prize as a memorial to Nobel. Thus, economics award is not a Nobel Prize as the others prizes which were established by Swedish industrialist Alfred Nobel in 1895.

BUSINESS

Russia's Rosneft Oil Company acquires India's Essar Oil for 13 billion US dollars

Russia's Rosneft Oil Company and its partners on 15 October 2016 acquired India's second biggest private oil firm Essar Oil in an all-cash deal valued at about 13 billion US dollars. Rosneft Oil Company's partners include Rosneft Oil Company, Netherlands-based commodities trader Trafigura and private investment group United Capital Partners. The business transaction was announced in the presence of Prime Minister Narendra Modi and Russian President Vladimir Putin at the 8th BRICS Summit in Goa.

Under this deal Rosneft bought a 49% stake in Essar Oil's refinery, port and petrol pumps, while Trafigura Group Pte and United Capital Partners split 49% equity equally. It includes \$10.9 billion for Essar Oil's Vadinar refinery (India's second-largest refinery with a capacity of 20 million tonnes) and \$2 billion for a port terminal that helps feed refinery. It also includes Essar Oil's debt of \$4.5 billion and about \$2 billion debt with the Port Company and power plant.

This acquisition deal is a milestone for Rosneft as it is entering India, one of the most promising and fast-growing world markets. With this, Rosneft became the third international player after Royal Dutch and Shell and British Petroleum to enter Indian fuel retailing market. It also proves the attractiveness of the Indian energy market to foreign investors as India is one of the fastest growing fuel consuming economies in the world

It will also help to strengthen the existing ties between Russia, one of world's largest oil producer and India, one of the world's fastest growing fuel consumer. Russia is keen to deepen its Soviet-era economic ties with India at a time when its own economy is stagnant

and is hit by Western sanctions over the Crimean crisis.

Reliance, Dassault Aviation ink deal to set up joint venture

Anil Ambani-led Reliance Group and Rafale maker Dassault Aviation on 3 October 2016 announced a joint venture called Dassault Reliance Aerospace in India. The Dassault Reliance Aerospace will execute offsets for the recently concluded India-France deal for 36 Rafale fighter jets. It will be the largest offset contract to be executed by any defence company in India. The contract value is estimated up to Rs. 30,000 crore.

Purpose of the Joint Venture is to focus on promoting Research and development projects under the IDDM program (Indigenously Designed, Developed and Manufactured), a new initiative of India's Defence Minister Manohar Parrikar. The Joint Venture will focus on aero structures, engines and electronics and intends to infrastructure and supply chain in India for the aerospace sector.

This new joint venture called Dassault Reliance Aerospace will develop major Indian programs with high levels of technology transfer to benefit the entire aerospace sector. The Joint Venture was announced by Dassault Reliance Aerospace within days of India and France signed agreement for 36 Rafale fighter jets value of 59,000 crore rupees (7.87 billion Euros). The agreement on Rafale jets was inked on 23 September 2016. Through the offsets, government seeks to bring in much needed expertise to build the domestic defence and aerospace industry.

AWARDS

Jitu Rai wins Champion of Champions pistol award of ISSF

Ace Indian Shooter Jitu Rai has won the 2016 Champion of Champions pistol Award of the International Shooting Sport Federation (ISSF) for pistol shooting. The army man beat Serbia's Damir Mikec, 29.6 to 28.3 in the Champions Trophy 10m Air Pistol final held at the TSN Shooting Range in Bologna, Italy. Jitu was also awarded a cash reward of \$5,587 (5000 euros) along with the title. Olympic champion Anna Korakaki finished third in this event. 10 m Air Pistol Champions Trophy was the mixed knock-out competition meant only for the medallists in the World Cup Final. In this event shooters are eliminated after the first four shots, one each after every successive shot. The last two compete on a three-shot format.

Music Director Uttam Singh named for Maharashtra's Lata Mangeshkar Award

The noted music director and violinist Uttam Singh (68) on 27 September 2016 has been named for 2016 Lata Mangeshkar Award for Lifetime Achievement by the Maharashtra government. He has been selected for the prestigious award for his contributions in the field of music. He will be presented this award later this year.

Uttam Singh had started his music at tender age. He had acquired his basic training from his father who was a sitar player. He later learnt to play violin and table. At the age of 15 he played violin for Mohammad Safi, assistant of legendary Bollywood music composer Naushad. Since then he had played for top music directors of the era, including Naushad, C. Ramchandra, Roshan, S.D. Burman and later became the chief violinist for R.D. Burman. Later he had joined hands with Jagdish Khanna. The 'Uttam-Jagdish' duo became one of the top music team and had worked for over 65 Bollywood films. He also worked for various Tamil films with Ilaiyaraaja as music arranger and in 1999 he had composed music for the Malayalam film Prem Poojari.

The Lata Mangeshkar Award is a national-level award instituted to honour works in the field of music. Various state governments of India present awards with this name. The state Government of Madhya Pradesh started this award in 1984. The Lata Mangeshkar Award issued by the Maharashtra Government started from 1992. This is also officially known as Lata Mangeshkar Award for Lifetime Achievement. It is awarded annually to a doyen of music. It carries a citation, a trophy and Rs 500,000 in cash.

Nayanjot Lahiri wins 2016 John F Richards Prize

History writer Nayanjot Lahiri on 4 October 2016 has won the prestigious 2016 John F. Richards Prize for her book *Ashoka in Ancient India*. The prestigious prize will be bestowed upon her at the American Historical Association (AHA's) 131st Annual Meeting to be held in Denver, Colorado in January 2017. The book *Ashoka* has been critically acclaimed for its enthralling account of an emperor who spoke to his people through his edicts; his victories and loss that left a legacy that surpassed him. It is the innovative interface of Emperor Ashoka's words which invite and enable a biographical narrative, with the archaeological landscapes where they can still be read. The Book adjudicates between archaeological, textual, and geographical evidence to offer a dazzling interpretation of a remarkable figure of the ancient world and a deep history of ancient society.

Nayanjot Lahiri is an eminent historian and archaeologist of ancient India. Currently, she is teaching at the newly created Ashoka University. She has several research papers and publications to her credit. Her research interests mostly include Indian archaeology, heritage studies, archeological theory and ancient India. For her work in archaeology, she was bestowed with the 2013 Infosys Prize in the humanities.

The John F. Richards Prize is awarded annually by the American Historical Association (AHA). The award has been named after John F. Richards (November 1938 to August 2007) who was eminent historian of South Asia and in particular of the Mughal Empire. It recognizes the most distinguished work of scholarship or book on South Asian history published in English.

Wildlife film-maker Prajna Chowta conferred knighthood by France

Film-maker and elephant researcher Prajna Chowta (46) has been appointed Chevalier de l'Ordre National du Mérite (Knight in the National Order of Merit) by the French government. She has been conferred with the France's one of the highest civilian recognitions in recognition of a life devoted to caring for wild Asian elephants.

She is the founder of Aane Mane Foundation. The foundation has been researching and conserving wild Asian elephants for the past 16 years. She has also authored the *Elephant Code Book* on captive elephant management as well as the French book **Enfant d'Elephant (Elephant's Child)** in 2014. The book is based on the sketches of tribals and their relationship with elephants. As a researcher, she was also instrumental in developing an online monitoring system and one of the first GPS collars for elephants in India. With this Prajna Chowta joins few other Indian women to be appointed a Knight by French Government. Earlier in 2016, businesswoman Kiran Mazumdar-Shaw and actor Kamal Hassan were recognised under the French government's Legion of Honour award.

SPORTS

India wins 2016 Kabaddi World Cup

India on 22 October 2016 has won the 2016 Kabaddi World Cup. Team India, under the captaincy of Anup Kumar, defeated Iran 38-29 in the final held at the Arena By TransStadia in Ahmedabad, Gujarat. It was India's third consecutive Kabaddi World Cup in the Standard Style version of Kabaddi. Earlier India had won in 2004 and 2007.

The 2016 Kabaddi World Cup was an international kabaddi tournament governed by the International Kabaddi Federation. It was contested from 7 to 22 October 2016 in Ahmedabad, India. Twelve countries had competed in the tournament. The tournament was hosted at The Arena by TransStadia, a newly-constructed convertible stadium in Ahmedabad.

Indian wrestlers win four medals at 2016 TAFISA World Games

Four Indian wrestlers have won four medals individually including a gold medal, at the sixth edition of the TAFISA World Games held in Jakarta, Indonesia. Wrestler Dalmiya had won gold medal in 60kg category by defeating Azerbaijan's Muhammad Sahan by 4-1 points in the final match.

Luv Singh won the silver medal in the 80 kg category after he was defeated by Muhammad Alim of Azerbaijan by 1-5 points in the final match. Naveen Kumar won the bronze medal in 90 Kg category after he defeated Lithuania's Oleg by 5-2 points. Josil won the bronze medal in the super heavyweight category by defeating Mustafa Sultani of Afghanistan by 3-1 points. Besides, Three gold medals were won by three women martial arts players from Thane. Aarti Chaudhari (29), Vishruti Waghmare (16) and Siddhi Jadhav (10) won the gold medals in Jeet Kune-do, a form of martial arts. Aarti Chaudhari won her second gold in Kabaddi, while Vishruti Waghmare bagged a bronze in the same event.

The Association for International Sport for All (TAFISA) is the leading international Sport for All organisation with more than 260 members in over 150 countries on all continents. Its vision and mission is to achieve an Active World by globally promoting and facilitating access for every person to Sport for All and physical activity.

Brazil wins inaugural BRICS U-17 Football Tournament

Brazil 15 October 2016 has won the inaugural BRICS U-17 Football Tournament 2016 held at Goa on the occasion of the 8th BRICS hosted in India. In the final match, Brazil defeated South Africa by 5-1 goals. Brazil's Paulo Henrique Samapaio Filho scored the very first goal of the match in 24th Minute. Followed by Vinicius de Oliveira in the 34th minute, Victor de Oliveira scored a brace in the 40th & 61st minute to give Brazil an upper hand. South Africa's S'miso Bophela scored the only goal for his team. The icing on Brazil's cake was set by Alan de Souza Guimaraes in the 6 minutes after the second half resulted the score in favor of Brazil as 5-1. Earlier in the match

for the 3rd place between Russia and China, Russia defeated China 2-1.

The BRICS U-17 Football Cup is a under 17 Football tournament played among teams of five BRICS countries viz. Brazil, Russia, India, China and South Africa. It was launched in October 2016 and seeks to transcend the traditional spheres of interaction and opens new vistas in the field of sports. The tournament will take place once every year and following the lines of the tournaments under-17 FIFA. Each edition will be held in a BRICS nation. In it, all five teams shall play each other in a round-robin before the top two teams qualify for the final and the third and fourth place teams play in the third-place match.

PERSON-IN-NEWS

IPS officer Karnal Singh appointed as Director of Enforcement Directorate

The Union Government on 26 October 2016 has appointed Senior IPS officer Karnal Singh as the Director of Enforcement Directorate (ED). Decision in this regard was taken by the Appointments Committee of the Cabinet (ACC) headed by Prime Minister Narendra Modi. The Appointments Committee of Cabinet approved the appointment of Singh till 31 August 2017, which is the date of his superannuation. Karnal Singh is 1984-batch IPS officer of the Union territories cadre. Prior to this appointment, Singh was holding the post as additional charge for over a year. His regular posting was Special Director, ED, for the northern region.

The Directorate General of Economic Enforcement is a law enforcement agency and economic intelligence agency responsible for enforcing economic laws and fighting economic crime in India. It functions under the aegis of the Department of Revenue, Union Ministry of Finance. It comprises officers of the Indian Revenue Service, Indian Police Service and the Indian Administrative Service. It has a mandate to enforce two of most stringent laws in the country. They are Prevention of Money Laundering Act (PMLA) and Foreign Exchange Management Act (FEMA) to check black money and hawala trade cases.

Sunil Bharti Mittal appointed as Chairman of GSMA

The Founder and Chairman of Bharti Enterprises Sunil Bharti Mittal on 27 October 2016 was appointed as Chairman of GSM Association (GSMA). He will succeed Jon Fredrik Baksaas, who will step down from the GSMA board at the end of 2016. In his new role, Mittal will oversee the strategic direction of the organisation. On the other hand, the company re-

elected Mari-Noëlle Jego-Laveissiere, Executive Vice President, Innovation, Orange Group as Deputy Chairman. It also elected the new members of the 26-member Board of the company.

Sunil Mittal is Indian telecom tycoon, entrepreneur and philanthropist. He is the founder, chairman and Group CEO of Bharti Enterprises, which has interests in telecom, financial services, retail and agri business. The Group's flagship company Bharti Airtel is India's largest telecom company and world's third largest mobile operator. It has its presence in 20 countries across Asia and Africa and customer base of over 275 million. He also serves on the boards and councils of several reputed international bodies and think-tanks like the World Economic Forum (WEF), Telecom Board of International Telecommunication Union (ITU), the Broadband Commission, Harvard University's Global Advisory Council. He is listed as the eight richest person in India by Forbes with a Net worth of 7 billion dollars. In 2007, he was awarded the Padma Bhushan, India's third highest civilian honour.

The GSMA represents the interests of mobile operators worldwide. It unites nearly 800 operators with almost 300 companies in the broader mobile ecosystem. The GSMA also produces industry-leading events such as Mobile World Congress, Mobile World Congress Shanghai, Mobile World Congress Americas and the Mobile 360 Series of conferences. The GSMA Board has 26 members, including 25 operator representatives from the world's largest operator groups as well as smaller, independent operators with global representation.

Cyrus Mistry removed as Chairman of Tata Group

The board of Tata Sons Ltd on 23 October 2016 replaced Cyrus Mistry as Chairman of the India's largest conglomerate and named his predecessor Ratan Tata as the interim chairman for four months. However he will remain a director of the individual companies. Mistry, 48, who replaced Tata, 78, as chairman in December 2012, was only the sixth group Chairman in nearly 15 decades and the first from outside the Tata family. He will remain a director of the individual companies, though his tenure as Chairman is the shortest so far at the group. Besides, the board also named a five-member search committee to choose a successor within four months. It has given time of four months to choose a successor.

Cyrus Pallonji Mistry is son of the billionaire Pallonji Shapoorji Mistry. Prior to his appointment as chairman he was deputy chairman of Tata Sons. He had remained the director of Tata Sons since 2006. Billionaire Pallonji Mistry, along with his sons, Shapoor

Mistry and Cyrus Mistry are owners of 18.5% stake in Tata group. They are largest shareholders on individual basis of group. He also had served as chairman of Tata Motors, Tata Chemicals, Tata Steel and Tata Global Beverages.

Saina Nehwal appointed member of IOC's Athletes' Commission

Indian shuttler Saina Nehwal has been appointed as a member of the International Olympic Committee's (IOC) Athletes' Commission. In this regard, Saina has received a letter to the effect from the IOC President Thomas Bach on 17 October 2016 mentioning that she has been appointed in consultation with Chair of Athletes' Commission. This member can be termed as a rare honour for the Indian sportsperson. The Athletes' Commission of IOC is chaired by Angela Ruggiero. It comprises nine vice presidents and 10 other members.

Saina Nehwal is the first Indian to win Olympics medal in Badminton and had achieved this feat by winning the Bronze medal at the London Olympics 2012. She is the first Indian to win the World Junior Badminton Championships and was also the first Indian to win a Super Series tournament, by winning Indonesia Open in 2009.

The IOC Athletes' Commission is a body maintained by the International Olympic Committee for the purpose of representing athletes. It was established in 1981 by the then-President of the IOC, Juan Antonio Samaranch, and its creation was subsequently codified by the IOC in Rule 21 of the Olympic Charter. The Commission is a consultative body whose function is to act as "the link between active athletes and the IOC". It makes recommendations to the IOC's executive bodies, and its chair serves as a member of the IOC Executive Board. It meets once or twice a year, and also organises an Athletes' Forum once every two years.

Amandeep Singh Gill appointed as India's Ambassador to UN Conference on Disarmament

Senior IFS officer Amandeep Singh Gill on 15 October 2016 was appointed as the India's Ambassador to the UN Conference on Disarmament, Geneva.

Amandeep Singh Gill is an Indian Foreign Service (IFS) officer of 1992 batch. Gill's diplomatic career includes assignments in Switzerland, Sri Lanka, Iran, and the Permanent Mission of India to the UN. His professional areas of interest focus on international relations, disarmament, regional security in South Asia, Southeast Asia, and Southwest Asia, and human security issues. In 2007-2008, he represented India

on the UN Secretary General's Panel on Missiles. He was a member of the Indian delegation to the Conference on Disarmament during the negotiations on the Comprehensive Nuclear Test Ban Treaty. Before joining the Indian Foreign Service, Amandeep Gill worked as a telecommunications engineer.

The Conference on Disarmament (CD) is not formally a United Nations (UN) organization. It is linked to the UN through a personal representative of the UN Secretary-General. It is a forum established in 1979 by the international community to negotiate multi-lateral arms control and disarmament agreements. The conference has 65 members represent all areas of the world, including all known nuclear-weapon states.

Ajay Kumar Bhalla appointed as Director General of Foreign Trade

Senior IAS officer Ajay Kumar Bhalla on 13 October 2016 has been appointed as new Director General of Directorate General of Foreign Trade (DGFT). He will succeed Anup Wadhawan, who has been appointed as Additional Secretary in the Union Ministry of Commerce. He is a 1984 batch IAS officer of Assam-Meghalaya cadre. Presently, he is the Additional Secretary in the Union Ministry of Commerce.

Directorate General of Foreign Trade (DGFT) is the nodal agency of the Union Ministry of Commerce and Industry, responsible for execution of the import and export Policies of India. It is entrusted with responsibilities for formulating and implementing the foreign trade policy with the main objective of promoting India's exports. It also issues authorisation to exporters and monitors their corresponding obligations through a network of 36 regional offices and an extension counter at Indore. DGFT plays a very important role in the development of trading relations with various other nations. It also plays important role in improving not only the economic growth but also provides a certain impetus needed in the trade industry.

Sushil Chandra appointed as Chairman of CBDT

The Union Government has appointed senior Indian Revenue Service (IRS) officer Sushil Chandra as the Chairman of the Central Board of Direct Taxes (CBDT). Decision in this regard was taken by the Appointments Committee of the Cabinet (ACC) chaired by Prime Minister Narendra Modi in New Delhi. Chandra will take over from the current CBDT Chairperson Rani Singh Nair, who will retire on 31 October 2016.

Sushil Chandra is IRS officer of 1980 batch. Prior to this appointment he was serving as member of CBDT. The Central Board of Direct Taxes provides essential

inputs for policy and planning of direct taxes in India. It is the policy-making body of the Income Tax Department under the Union Finance Ministry. It is a statutory authority functioning under the Central Board of Revenue Act, 1963. The Chairperson of the CBDT is the senior-most IRS civil servant in the Government of India. The Chairperson of Central Board of Direct Taxes is the ex officio Special Secretary to the Government of India and also cadre controlling authority of the Indian Revenue Service. The CBDT Chairperson is placed above the officers of the rank of Lieutenant-General, Vice-Admiral or Air Marshal, CBI Director and Deputy Comptroller and Auditor General in the Order of Precedence.

MS Sahoo takes charge as Chairman of Insolvency and Bankruptcy Board of India

The Union Finance Ministry also constituted four-member Insolvency and Bankruptcy Board of India (IBBI) with Financial markets expert MS Sahoo as its Chairman. MS Sahoo was administered the oath of the office by Union Finance and Corporate Affairs Minister Arun Jaitley in New Delhi. He will have tenure of five years i.e. till 2021. Prior to this appointment, he was serving as a member of anti-trust regulator Competition Commission of India (CCI). Earlier he also had served as member at capital markets regulator Securities and Exchange Board of India (SEBI). He also had served as Chairman of the government-appointed committees on depository receipts, domestic and overseas capital markets, and external commercial borrowing (ECBs).

Insolvency and Bankruptcy Board of India (IBBI) IBBI is a four-member Board. The members of the IBBI are Ajay Tyagi, Amardeep Singh Bhatia, GS Yadav and Unnikrishnan. The main activity of IBBI is to regulate the functioning of insolvency professionals, insolvency professional agencies and information utilities under the Insolvency and Bankruptcy Code 2016. The Board will be expanded to 10 Members (including the Chairman) in the future.