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Nobel Prize 2016

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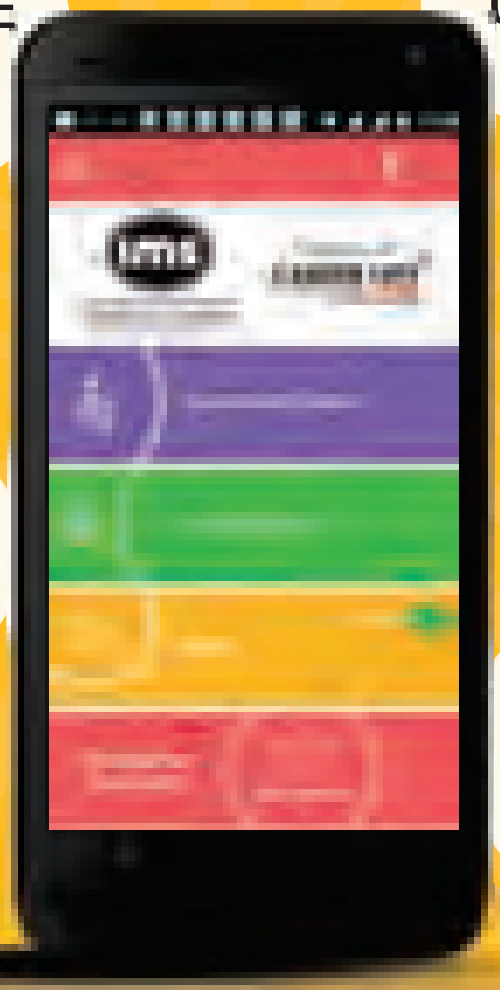

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INSIDE

Cover Story - Noble Prize 2016

The ***Nobel Prize*** is a set of annual international awards bestowed in a number of categories by Swedish and Norwegian institutions in recognition of academic, cultural, and/or scientific advances.

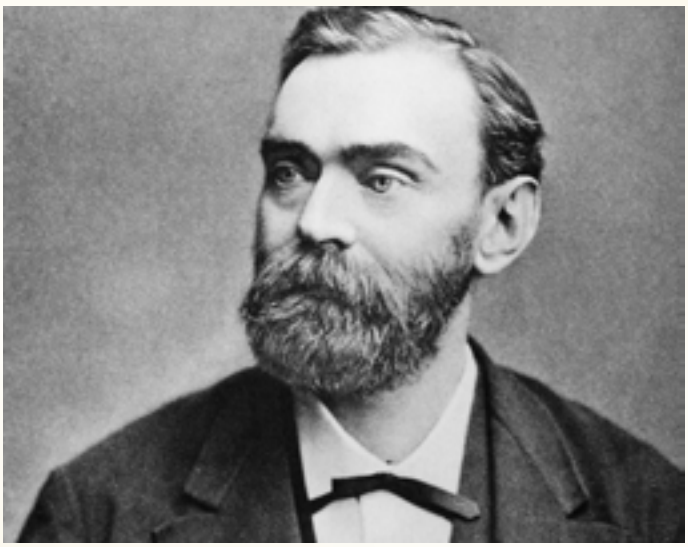
The will of the Swedish inventor Alfred Nobel established the prizes in 1895. The prizes in Chemistry, Literature, Peace, Physics, and Physiology or Medicine were first awarded in 1901. The related Nobel Memorial Prize in Economic Sciences was established by Sweden's central bank in 1968. Medals made before 1980 were struck in 23 carat gold, and later from 18 carat green gold plated with a 24 carat gold coating. Between 1901 and 2015, the Nobel Prizes and the Prize in Economic Sciences were awarded 573 times to 900 people and organizations. With some receiving the Nobel Prize more than once, this makes a total of 870 individuals (822 men and 48 women) and 23 organizations.

The prize ceremonies take place annually in Stockholm, Sweden (with the exception of the peace prize, which is held in Oslo, Norway). Each recipient, or laureate, receives a gold medal, a diploma, and a sum of money that has been decided by the Nobel Foundation. (As of 2012, each prize was worth SEK8 million or about US$1.2 million, €0.93 million, or £0.6 million.) The Nobel Prize is widely regarded as the most prestigious award available in the fields of literature, medicine, physics, chemistry, peace, and economics.

The Royal Swedish Academy of Sciences awards the Nobel Prize in Physics, the Nobel Prize in Chemistry, and the Nobel Memorial Prize in Economic Sciences; the Nobel Assembly at Karolinska Institutet awards the Nobel Prize in Physiology or Medicine; the Swedish Academy grants the Nobel Prize in Literature; and the Nobel Peace Prize is awarded not by a Swedish organisation but by the Norwegian Nobel Committee.

The prize is not awarded posthumously; however, if a person is awarded a prize and dies before receiving it, the prize may still be presented. Though the average number of laureates per prize increased substantially during the 20th century, a prize may not be shared among more than three people.

History



Alfred Nobel was born on 21 October 1833 in Stockholm, Sweden, into a family of engineers. He was a chemist, engineer, and inventor. In 1894, Nobel purchased the Bofors iron and steel mill, which he made into a major armaments manufacturer. Nobel also invented ballistite. This invention was a precursor to many smokeless military explosives, especially the British smokeless powder cordite. As a consequence of his patent claims, Nobel was eventually involved in a patent infringement lawsuit over cordite. Nobel amassed a fortune during his lifetime, with most of his wealth from his 355 inventions, of which dynamite is the most famous.

In 1888, Nobel was astonished to read his own obituary, titled The merchant of death is dead, in a French newspaper. As it was Alfred's brother Ludvig who had died, the obituary was eight years premature. The article disconcerted Nobel and made him apprehensive about how he would be remembered. This inspired him to change his will. On 10 December 1896, Alfred Nobel died in his villa in San Remo, Italy, from a cerebral haemorrhage. He was 63 years old.

Nobel wrote several wills during his lifetime. He composed the last over a year before he died, signing it at the Swedish–Norwegian Club in Paris on 27 November 1895. To widespread astonishment, Nobel's last will specified that his fortune be used to create a series of prizes for those who confer the "greatest benefit on mankind" in physics, chemistry, physiology or medicine, literature, and peace. Nobel bequeathed 94% of his total assets, 31 million SEK (c. US$186 million, €150 million in 2008), to establish the five Nobel Prizes. Because of scepticism surrounding the will, it was not until 26 April 1897 that it was approved by the Storting in Norway. The executors of Nobel's will, Ragnar Sohlman and Rudolf Lilljequist, formed the Nobel Foundation to take care of Nobel's fortune and organise the award of prizes. Nobel's instructions named a Norwegian Nobel Committee to award the Peace Prize, the members of whom were appointed shortly after the will was approved in April 1897. Soon thereafter, the other prize-awarding organisations were designated or established. These were Karolinska Institutet on 7 June, the Swedish Academy on 9 June, and the Royal Swedish Academy of Sciences on 11 June. The Nobel Foundation reached an agreement on guidelines for how the prizes should be awarded; and, in 1900, the Nobel Foundation's newly created statutes were promulgated by King Oscar II. In 1905, the personal union between Sweden and Norway was dissolved.

Nobel Foundation

The Nobel Foundation was founded as a private organisation on 29 June 1900. Its function is to manage the finances and administration of the Nobel Prizes. In accordance with Nobel's will, the primary task of the Foundation is to manage the fortune Nobel left. Robert and Ludvig Nobel were involved in the oil business in Azerbaijan, and according to Swedish historian E. Bargengren, who accessed the Nobel family archives, it was this "decision to allow withdrawal of Alfred's money from Baku that became the decisive factor that enabled the Nobel Prizes to be established". Another important task of the Nobel Foundation is to market the prizes internationally and to oversee informal administration related to the prizes. The Foundation is not involved in the process of selecting the Nobel laureates. In many ways, the Nobel Foundation is similar to an investment company, in that it invests Nobel's money to create a solid funding base for the prizes and the administrative activities. The Nobel Foundation is exempt from all taxes in Sweden (since 1946) and from investment taxes in the United States (since 1953). Since the 1980s, the Foundation's investments have become more profitable and as of 31 December 2007, the assets controlled by the Nobel Foundation amounted to 3.628 billion Swedish kronor (c. US$560 million).

According to the statutes, the Foundation consists of a board of five Swedish or Norwegian citizens, with its seat in Stockholm. The Chairman of the Board is appointed by the Swedish King in Council, with the other four members appointed by the trustees of the prize-awarding institutions. An Executive Director is chosen from among the board members, a Deputy Director is appointed by the King in Council, and two deputies are appointed by the trustees. However, since 1995, all the members of the board have been chosen by the trustees, and the Executive Director and the Deputy Director appointed by the board itself. As well as the board, the Nobel Foundation is made up of the prize-awarding institutions (the Royal Swedish Academy of Sciences, the Nobel Assembly at Karolinska Institute, the Swedish Academy, and the Norwegian Nobel Committee), the trustees of these institutions, and auditors.

First prizes

Once the Nobel Foundation and its guidelines were in place, the Nobel Committees began collecting nominations for the inaugural prizes. Subsequently, they sent a list of preliminary candidates to the prize-awarding institutions.

The Nobel Committee's Physics Prize shortlist cited Wilhelm Röntgen's discovery of X-rays and Philipp Lenard's work on cathode rays. The Academy of Sciences selected Röntgen for the prize. In the last decades of the 19th century, many chemists had made significant contributions. Thus, with the Chemistry Prize, the Academy "was chiefly faced with merely deciding the order in which these scientists should be awarded the prize." The Academy received 20 nominations, eleven of them for Jacobus van't Hoff. Van't Hoff was awarded the prize for his contributions in chemical thermodynamics.

The Swedish Academy chose the poet Sully Prudhomme for the first Nobel Prize in Literature. A group including 42 Swedish writers, artists, and literary critics protested against this decision, having expected Leo Tolstoy to be awarded. Some, including Burton Feldman, have criticised this prize because they consider Prudhomme a mediocre poet. Feldman's explanation is that most of the Academy members preferred Victorian literature and thus selected a Victorian poet. The first Physiology or Medicine Prize went to the German physiologist and microbiologist Emil von Behring. During the 1890s, von Behring developed an antitoxin to treat diphtheria, which until then was causing thousands of deaths each year.

The first Nobel Peace Prize went to the Swiss Jean Henri Dunant for his role in founding the International Red Cross Movement and initiating the Geneva Convention, and jointly given to French pacifist Frédéric Passy, founder of the Peace League and active with Dunant in the Alliance for Order and Civilization.

Prize in Economic Sciences

In 1968, Sveriges Riksbank celebrated its 300th anniversary by donating a large sum of money to the Nobel Foundation to be used to set up a prize in honor of Nobel. The following year, the Nobel Memorial Prize in Economic Sciences was awarded for the first time. The Royal Swedish Academy of Sciences became responsible for selecting laureates. The first laureates for the Economics Prize were Jan Tinbergen and Ragnar Frisch "for having developed and applied dynamic models for the analysis of economic processes." Although not a Nobel Prize, it is intimately identified with the other awards; the laureates are announced with the Nobel Prize recipients, and the Prize in Economic Sciences is presented at the Swedish Nobel Prize Award Ceremony. The Board of the Nobel Foundation decided that after this addition, it would allow no further new prizes.

Multiple Laureates

Marie Curie, one of four people who have received the Nobel Prize twice (Physics and Chemistry)

Four people have received two Nobel Prizes. Marie Curie received the Physics Prize in 1903 for her work on radioactivity and the Chemistry Prize in 1911 for the isolation of pure radium, making her the only person to win a Nobel Prize in two different sciences. Linus Pauling won the 1954 Chemistry Prize for his research into the chemical bond and its application to the structure of complex substances. Pauling also won the Peace Prize in 1962 for his activism against nuclear weapons, making him the only laureate of two unshared prizes. John Bardeen received the Physics Prize twice: in 1956 for the invention of the transistor and in 1972 for the theory of superconductivity. Frederick Sanger received the prize twice in Chemistry: in 1958 for determining the structure of the insulin molecule and in 1980 for inventing a method of determining base sequences in DNA.

Two organisations have received the Peace Prize multiple times. The International Committee of the Red Cross received it three times: in 1917 and 1944 for its work during the world wars; and in 1963 during the year of its centenary. The United Nations High Commissioner for Refugees has won the Peace Prize twice for assisting refugees: in 1954 and 1981.

Nobel Prizes 2016

The Nobel Prize in Physics 2016

The Nobel Prize in Physics 2016 was divided, one half awarded to David J. Thouless, the other half jointly to F. Duncan M. Haldane and J. Michael Kosterlitz "for theoretical discoveries of topological phase transitions and topological phases of matter".

David J. Thouless

F. Duncan M. Haldane

J. Michael Kosterlitz

The Nobel Prize in Chemistry 2016

The Nobel Prize in Chemistry 2016 was awarded jointly to Jean-Pierre Sauvage, Sir J. Fraser Stoddart and Bernard L. Feringa "for the design and synthesis of molecular machines".

Jean-Pierre Sauvage

Sir J. Fraser Stoddart

Bernard L. Feringa

The Nobel Prize in Physiology or Medicine 2016

The Nobel Prize in Physiology or Medicine 2016 was awarded to Yoshinori Ohsumi "for his discoveries of mechanisms for autophagy".

The Nobel Prize in Literature 2016

The Nobel Prize in Literature 2016 was awarded to Bob Dylan "for having created new poetic expressions within the great American song tradition".

The Nobel Peace Prize 2016

The Nobel Peace Prize 2016 was awarded to Juan Manuel Santos "for his resolute efforts to bring the country's more than 50-year-long civil war to an end".

NOBEL PRIZE

Personality of The Month

Juan Manuel Santos - Nobel Peace P rize Winner 2016

Juan Manuel Santos Calderón is the 32nd and current President of Colombia and sole recipient of the 2016 Nobel Peace Prize.

An economist by profession and a journalist by trade, Santos is a member of the wealthy and influential Santos family, who from 1913 to 2007 were the majority shareholders of the newspaper El Tiempo until its sale to Planeta DeAgostini in 2007. Shortly after graduating from the University of Kansas, he joined the National Federation of Coffee Growers of Colombia as an economic advisor and delegate to the International Coffee Organization in London, where he also attended the London School of Economics and Political Science. In 1981, he was appointed deputy director of El Tiempo, becoming its director two years later.

In 1991, he was appointed by President César Gaviria Trujillo as Colombia's first Minister of Foreign Trade. Santos worked in expanding international trade with Colombia, and worked in creating various agencies for this purpose including: Proexport, Bancoldex and Fiducoldex. In 2000, he was appointed by President Andrés Pastrana Arango as the 64th Minister of Finance and Public Credit.

Santos rose to prominence during the Administration of President Álvaro Uribe Vélez. In 2005, he co-founded and led the Social Party of National Unity (Party of the U), a liberal-conservative party coalition that backed the policies of President Uribe, successfully supporting his attempt to seek a Constitutional reform to be able to run for a second term. In 2006, after Uribe was re-elected, and the Party of the U won a majority of seats in both chambers of Congress, Santos was appointed Minister of National Defence, and continued defending the security policies of President Uribe, taking a strong and forceful stance against FARC and the other guerrilla groups operating in Colombia.

On October 7, 2016, it was announced that Santos will receive the Nobel Peace Prize for negotiating a peace treaty with the guerillas in the country.

Life

Santos was born in Bogotá, Colombia. He attended Colegio San Carlos, a private secondary school in Bogotá, where he spent most of his school years until 1967, when he enlisted in the Colombian Navy and transferred to the Admiral Padilla Naval Cadet School in Cartagena, graduating from it in 1969, and continuing in the Navy until 1971, finishing with the rank of naval cadet NA-42 139.

After leaving the Navy, Santos moved to the United States where he attended the University of Kansas. A member of Delta Upsilon fraternity, he graduated in 1973 with a Bachelor in Economics and Business Administration.

After graduating from the University of Kansas, Santos served as Chief Executive of the National Federation of Coffee Growers of Colombia to the International Coffee Organization in London. During this time he also attended the London School of Economics and Political Science, graduating with a Master of Science in Economic Development in 1975, He then attended the John F. Kennedy School of Government at Harvard University, graduating with a Master of Public Administration in 1981. He returned to Colombia to become Deputy Director of his family owned newspaper El Tiempo.

A Fulbright visiting fellow at the Fletcher School of Law and Diplomacy at Tufts University in 1981, and a Nieman Fellow at Harvard University in 1988, Santos also holds an honorary Doctor of Laws degree.

He was Minister of Foreign Trade of Colombia during the administration of President César Gaviria Trujillo from 1991 to 1994, Minister of Finance and Public Credit of Colombia during the administration of President Andres Pastrana Arango from 2000 to 2002. In 1992 he was appointed President of the VIII United Nations Conference on Trade and Development.

In 1994 Juan Manuel Santos founded the Good Government Foundation, whose stated objective is helping and improving the governability and efficiency of the Colombian Government. This organization presented a proposal for a demilitarized zone and peace talks with the FARC guerrilla group.

President of Colombia

On 20 June 2010, after two rounds of voting in the Presidential election, Juan Manuel Santos Calderón was officially elected as President of Colombia and was inaugurated on 7 August 2010 in the midst of a diplomatic crisis with Venezuela, which was quickly resolved.

Persons in News

Antonio Guterres elected as new Secretary-General of UN - October 14, 2016

The United Nations General Assembly (UNGA) has formally elected Antonio Guterres (67) as the new Secretary-General of the United Nations. In this regard, 193 member states of UN adopted by acclamation a resolution for appointing Antonio Guterres. He will have five-year term beginning January 1, 2017. He will succeed retiring Ban Ki-moon who has completed two five-year terms as the world's top diplomat. Earlier in October 2016, Antonio Guterres had won unanimous support from UN Security Council (UNSC).

Who is Antonio Guterres?

Antonio Guterres is Portuguese politician and diplomat. He had entered politics in 1976 during Portugal's first democratic election after the "Carnation Revolution" which had ended five decades of dictatorship. He was Prime Minister of Portugal from 1995 to 2002. He was the United Nations High Commissioner for Refugees (UNHCR) from June 2005 to December 2015. He led the UNHCR through during one of the world's worst present refugee crises, including those in Syria, Afghanistan, and Iraq.

About Secretary-General of United Nations

The UN Secretary-General is the head of the United Nations Secretariat. He is de facto spokesperson and leader of the UN. The role Secretary-General has been mentioned in Chapter XV (Articles 97 to 101) of UN Charter. The post lasts for five years and is limited to a maximum of two terms.

Abdelilah Bekirane elected as Prime minister of Morocco - October 12, 2016

Abdelilah Bekirane was re-appointed as the Prime Minister of Morocco for second term. Benkirane has been serving as Prime Minister since November 2011. It was officially announced by Mohammed VI, the king of Morocco after Benkirane's Islamic Justice and Development Party (PJD) emerged victorious in recent general election. Now PM Bekirane will now reach out to other parties to form a coalition government as he does not have absolute majority in lower house.

Background

In recently concluded general election the PJD party had emerged single largest party by winning 125 seats. While the opposition Authenticity and Modernity Party came second with 102 seats. Morocco's oldest party Istiqlal (Independence) Party emerged third winning 46 seats. Morocco has multi-party system which makes it impossible for any political party to win an absolute majority in the lower house of 395 members. Of the total 395 members, 305 are elected in multi-seat constituencies from electoral lists, while of the remaining 90 seats, 60 seats are reserved for a national list of women. Reest 30 seats are set aside for the young candidates below the age of 35.

About Abdelilah Bekirane

Born in 1954 in Rabat, Morocco. He holds graduate degree in Physics. He is former Managing Editor of Al-Islah, Ar-Raya and Attajdid newspapers. In 2016, he was elected for a fifth term in Parliament and represents Salé constituency since November 1997. Since 2008, he is secretary-general of the Justice and Development Party of Morocco.

Sushil Chandra appointed as Chairman of CBDT - October 6, 2016

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. Sushil Chandra is IRS officer of 1980 batch. Prior to this appointment he was serving as member of CBDT. He will succeed Rani Singh Nair, who will retire on October 31, 2016.

About Central Board of Direct Taxes (CBDT)

CBDT is nodal policy-making body of the Income Tax (IT) department under the Union Finance Ministry. It is a statutory authority established under The Central Board of Revenue Act, 1963. It is also the supreme body in India for framing policies related to direct taxes. The composition of CBDT includes Chairman and six members.

Former ISRO Chariman UR Rao becomes first Indian to be inducted into IAF Hall of Fame - October 5, 2016

Former ISRO Chairman and space scientist Prof Udupi Ramachandra Rao became the first Indian to be inducted in the Hall of Fame of International Astronautical Federation (IAF). He was inducted during the closing ceremony of the 67th IAF Congress 2016 held at Guadalajara, Mexico for his outstanding contribution to the progress of astronautics.

About UR Rao

He had served as Chairman of Indian Space Research Organisation (ISRO) from 1984 to 1994. Under his guidance, ISRO had designed more than 20 satellites including India's first satellite Aryabhatta. Under his leadership, India had initiated the development of the geostationary launch vehicle GSLV and the development of cryogenic technology in 1991. He was also responsible for successful launch of INSAT satellites during his stint at ISRO. He also had served as the first Chairman of Antrix Corporation, the commercial arm of the ISRO. He has published more than 260 scientific and technical papers in various journals. He had played pivotal role in promoting the use of space technology for broadcasting, meteorology, education, disaster warning and remote sensing.

Awards and Honours: Padma Bhushan (1976). He was inducted into the Satellite Hall of Fame, Washington in March 2013 by the Society of Satellite Professionals International.

Kersti Kaljulaid elected as first female President of Estonia - October 4, 2016

The parliament of Estonia has elected Kersti Kaljulaid (46) as the President of the Baltic country. With this, she became Estonia's first female president. 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.

About Kersti Kaljulaid Kersti

Kaljulaid is trained biologist specialising in genetics and also holds an MBA from University of Tartu. In the late 1990s she had worked as investment banker at Hansapank that was later taken over by Swedbank. In 1999, she had joined the office of then Estonian Prime Minister Mart Laar as an economic policy adviser. Since May 2011, she was serving as the representative of Estonia in the European Court of Auditors (ECA).

Abu Dhabi Crown Prince to be Chief Guest on 2017 Republic Day - October 3, 2016

The crown prince of Abu Dhabi, Sheikh Mohammed bin Zayed Al Nahyan will be the chief guest for the 68th Republic Day celebrations on 26 January 2017. In this regard, announcement was made the by Union Ministry of External Affairs (MEA) Spokesman Vikas Swarup in New Delhi after the crown prince accepted invitation.

Earlier Chief guests of Republic Day parades: 2016- Francois Hollande (French President), 2015- Barack Obama (US President), 2014- Shinzo Abe (Japanese Prime Minister), 2013- Jigme Khesar Namgyel Wangchuck (King of Bhutan), 2012- Yingluck Shinawatra (Then Prime Minister of Thailand), 2011- Susilo Bambang Yudhoyono (Then President of Indonesia).

It should be noted France holds distinction of being the guest of honour for the maximum five times of Indian Republic Day parade followed by Bhutan (four times); Mauritius and Russia (three times each).

India-UAE Relations

India-UAE Relations deeply rooted in history and strategic cooperation which is driven by mutual aspirations of both countries. UAE is lynch-pin of the economic, defence and strategic strands of the India's coordinated strategy to outreach west Asia. UAE is India's third largest trading partner after China and the United States. Bilateral trade between UAE and India is around 60 billion dollars. Besides, there are also more than 2.6 million Indians living in the UAE and their annual remittance is estimated to be around 14 billion dollars.

Jim Yong Kim re-appointed as President of World Bank for second term - September 28, 2016

Jim Yong Kim has been re-appointed as President of World Bank for a second five-year term beginning 1 July 2017. He was unanimously chosen by the Executive Directors of the World Bank. He was the only candidate in a process.

About Jim Yong Kim

Jim Yong Kim is a South Korean-American physician and anthropologist. He is the 12th President of the World Bank and for first time was appointed in 2012. He was a global health leader and was formerly the Chair of Department of Global Health and Social Medicine at Harvard Medical School. The Forbes Magazine had named him in its list of the world's 50th most powerful in 2013.

About World Bank

The World Bank is an international financial institution that provides loans to developing countries for capital programs. It comprises two institutions: the International Bank for Reconstruction and Development (IBRD), and the International Development Association (IDA). Formation: July 1944. Headquarters: Washington DC, United States. Motto: Working for a World Free of Poverty. Membership: 189 countries (IBRD), 173 countries (IDA) The World Bank is one of the five components of the World Bank Group, which is part of the United Nations system.

Navtej Sarna appointed Ambassador to the US - September 23, 2016

The Union Government has appointed Navtej Sarna (59) was appointed as Ambassador to the United States. He will take over from Arun Kumar Singh, who has retired from the service. In his new role he will face the task of engaging with the new administration in United States following the November 2016 Presidential poll.

About Navtej Sarna

He is an Indian Foreign Service (IFS) officer of the 1980 batch. In his career spanning 35 years, he has handled several important assignments at the MEA. Prior to this appointment he was serving as India's High Commissioner to the United Kingdom. He was appointed to India's High Commissioner to UK in January 2016. Prior to it, he was serving as Secretary (West) in the Union Ministry of External Affairs (MEA). He was among the longest-serving spokespersons of the MEA from 2002 to 2008. He also has authored many fiction and non-fiction books and the most recent being 'Second Thoughts: On Books, Authors and the Writerly Life' released in 2016. He was also India's ambassador to Israel from 2008 to 2012. He had served at various Indian missions including in Warsaw, Moscow, Tehran, Geneva, Thimphu and Washington.

Anandi Ramalingam assumed charge as BHL's first woman director - September 20, 2016

Anandi Ramalingam has assumed charge as Director Marketing of the Public sector Bharat Electronics Ltd (BEL). With this she becomes first woman to be appointed as the Director of the company. Prior to this appointment, she was the general manager heading the Military Communication Strategic Business Unit (SBU) at BEL's Bengaluru Complex.

About Anandi Ramalingam

Ramalingam had joined BEL in March 1985 after completing her BE in Electronics and Communication engineering (ECE) from the PSG College of Technology, Coimbatore. In the last 20 years, she had gained rich experience in equipment testing working across various domains of military communication including heading testing for Shakti. Shakti is the flagship Artillery Combat Command and Control System, developed by BEL and DRDO for the AREN (Army Radio Engineered Network) and Indian Army.

About Bharat Electronics Limited (BEL)

BEL is state-owned aerospace and defence company with about nine factories and few regional offices across India. It is owned by the Central Government and primarily manufactures advanced electronic products for the Indian Armed Forces. BEL is one of nine PSUs under the Union Ministry of Defence of India. It has been accorded Navratna status.

Alka Sirohi appointed as UPSC chairman - September 19, 2016

President Pranab Mukherjee has appointed former IAS officer Alka Sirohi as chairman of Union Public Service Commission (UPSC) as per Article 316 of Constitution. She will replace Deepak Gupta who demits office on 20th September 2016. She will be in office till completion of her term as member on January 3, 2017.

About Alka Sirohi

She is a retired IAS officer of Madhya Pradesh cadre. Prior to this appointment she was member of the UPSC. Before joining the UPSC as a member in January 2012, she was Secretary, Department of Personnel and Training (DoPT).

About Union Public Service Commission (UPSC)

UPSC is constitutional body which conducts the prestigious civil services examination to select IAS, IFS and IPS officers among others. It has been established under Article 315 of the Constitution and consists of a Chairman and ten Members; appointed and removed by President. The chairman and members of the Commission hold office for a term if six years or until they attain the age of 65 years, whichever is earlier. It conducts the prestigious civil services examination to select officers of Indian Administrative Service (IAS), Indian Foreign Service (IFS) and Indian Police Service (IPS) among others.

Bob Dylan wins 2016 Nobel Prize in Literature - October 14, 2016

American singer-songwriter, artist and writer Bob Dylan (75) has won the 2016 Nobel Prize in Literature. He is the first American to win the prize since novelist Toni Morrison in 1993. The Swedish Academy has selected Dylan for this prestigious award for creating new poetic expressions within the great American song tradition.

About 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. He is one of the best-selling artists (musician) of all time and has sold more than 100 million records. 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 The Times They Are a-Changin and Blowin' in the Wind were the 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. Awards and Honours: 11 Grammy Awards, Golden Globe Award and Academy Award (Oscar). The Pulitzer Prize jury had awarded him a special citation in 2008 for his profound impact on popular music and American culture.

Oliver Hart and Bengt Holmstrom win 2016 Nobel Prize in Economics - October 10, 2016

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. Their work provided

economists microecomic tools to understand interactions between entities, such as design of performance incentives in firms, corporate governance, privatisation, constitutional law and entrepreneur-investor relationships.

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.

Sikkim CM Pawan Chamling honoured with Sustainable Development Leadership Award - October 7, 2016

Sikkim Chief Minister Pawan Chamling was honoured with prestigious Sustainable Development Leadership Award of the The Energy and Resources Institute (TERI). He was presented with the award by President Pranab Mukherjee during "World Sustainable Development Summit" in New Delhi. The award bestowed upon him in recognition of his vision and leadership in environment and sustainable development that made Sikkim India's first into a fully organic state.

Background

Sikkim is only state in India that has attained the official status of fully organic state in January 2016 announced by Prime Minister Narendra Modi. Around 75,000 hectares of land in Sikkim has been converted into certified organic farms following the guidelines as prescribed by National Programme for Organic Production. Sikkim contributes around 80,000 tonnes of organic production out of total 1.24 million tonnes of recorded production in India.

Awards Current Affairs Jean-Pierre Sauvage, J Fraser Stoddart and Bernard L Feringa win 2016 Nobel Prize in Chemistry - October 6, 2016

Trio of Jean-Pierre Sauvage, J Fraser Stoddart and Bernard L Feringa have won the prestigious 2016 Nobel Prize in Chemistry. Royal Swedish Academy of Sciences has chosen them for this award for their individual efforts in developing molecular machines. These three laureates will share the 8 million Swedish kronor (around $933,000) prize equally.

What are molecular machines?

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. Future Potential Applications: 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.

Contributions of Jean-Pierre Sauvage (France): He had taken first step towards a molecular machine in 1983, after he successfully linked together two ring-shaped molecules to form a chain.

J Fraser Stoddart (Britain): 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 (Netherlands): 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.

British trio David Thouless, F Duncan M Haldane and Michael Kosterlitz win 2016 Nobel Prize in Physics - October 5, 2016

British trio of physicists David Thouless, F Duncan M Haldane and Michael Kosterlitz have won the 2016 Nobel Prize in Physics. 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.

Key Facts

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.

About Awardees

David J Thouless: He is Emeritus Professor at the University of Washington, Seattle, US. Duncan M. Haldane: He is the Eugene Higgins Professor of Physics at Princeton University, US.

J Michael Kosterlitz: He is the Harrison E. Farnsworth Professor of Physics at Brown University, US.

Nayanjot Lahiri wins 2016 John F Richards Prize - October 5, 2016

History writer Nayanjot Lahiri 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. Her book Ashoka in Ancient India has been critically acclaimed for its riveting account of an emperor Ashoka. She had deftly adjudicated between textual, archaeological, and geographical evidences to offer a dazzling interpretation of Ashoka and the ancient world.

About Nayanjot Lahiri

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.

About John F. Richards Prize

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.

Japan's Yoshinori Ohsumi wins 2016 Nobel Prize in Medicine - October 4, 2016

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).

What is Autophagy?

Autophagy is a process whereby cells "eat themselves". It is a fundamental process in cell physiology dealing with how the body breaks down and recycles cellular components. It is essential for the orderly recycling of damaged cell parts and its better understanding has major implications for health and disease, including cancer. 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 Research in Autophagy

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. Significance: 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.

About Nobel Prize in Physiology or Medicine

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 kroner or 1.1 million dollars. It is one of five Nobel Prizes established by Swedish chemist Alfred Nobel, the inventor of dynamite in 1895.

Indian-origin Kiara Nirghin wins 2016 Google Science Fair prize - October 3, 2016

Indian-origin South African Kiara Nirghin (16) has won a $50,000 scholarship at the annual Google Science Fair held in United States. She has won this prestigious scholarship for developing a cheaper super-absorbent material using orange peel that helps soil retain water. She is Grade 11 student at private school St Martin's.

Kiara Nirghin's project

She had submitted her project titled 'No More Thirsty Crops' that aimed at alleviating the severe drought plaguing South Africa. Her solution to the problem of drought is simple and uses the peels from orange and avocado fruits, which were normally discarded. She had developed super-absorbent polymers (SAPs), which absorb and carry about 300 times its weight in liquid relative to their own mass. These SAPs are biodegradable and not costly and does not contain harmful chemicals. SAPs developed by her can retain large amounts of water, keep soil moist and also improve crop growth without regular water supplements.

Google Science Fair: It is an annual programme of the search engine giant Google for any budding scientists between the ages of 13 to 18 who are invited something to solve the world's biggest challenges using science and technology.

Murga wins first prize at Swachh Bharat Short Film Festival - October 3, 2016

Murga has won the first prize at the Swachh Bharat Short Film Festival (SBSFF). The short film was directed by young filmmaker Katyayan Shivpuri from Maharashtra. The Union Information and Broadcasting Minister M Venkaiah Naidu bestowed award upon Katyayan with a certificate and cash prize of 10 lakhs rupees.

Key Facts

The SBSFF was organised and curated by National Film Development Corporation (NFDC) on behalf of the Union Ministry of Information and Broadcasting. The festival was the cinematic presentation of short films of not more than 3 minutes duration, dedicated to the Swachh Bharat Mission initiative of Central Government. It had received 4,346 entries in more than 20 languages from across the country, including Punjab, Jammu and Kashmir, Uttar Pradesh, Telangana, Kerala and Tamil Nadu.

Music Director Uttam Singh named for Maharashtra's Lata Mangeshkar Award - October 1, 2016

The noted music director and violinist Uttam Singh (68) 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.

About Uttam Singh

He had stared 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 Ilaiyaraja as music arranger and in 1999 he had composed music for the Malayalam film Prem Poojari. Awards and Honours: International Indian Film Academy Award, Filmfare Award and Screen Award for best music director, Filmfare Award, Screen Award and Zee Cine Award.

International Current Affairs

15 October: International Day of Rural Women - October 15, 2016

The International Day of Rural Women is observed annually across the world on 15 October to recognize the critical role and contribution of rural women. **Significance of the day:** Highlights the critical role and contribution of rural women, including indigenous women in enhancing rural and agricultural development, eradicating rural poverty and improving food security.

2016 Theme: "Climate is changing. Food and agriculture must too". It tries to bring focus on farmers, pastoralists and fishers who are standing on the frontlines of food insecurity due to climate changed due to temperatures rise. The United Nations also calls for empowering rural women as a pre-requisite for fulfilling the vision of the Sustainable Development Goals (SGD) which aims at ending poverty and hunger, achieve food security and empower all women and girls.

Why International Day of Rural Women is celebrated?

Rural women, make up over a quarter of the total world population. Majority of them depend on natural resources and agriculture for their livelihood. In developing countries, rural women represent approximately 43% of the agricultural labour force. They produce, prepare and process much of the food available, thereby giving them primary responsibility for food security. Thus it is important to recognise the contribution and significant role played by these rural women in food security and poverty elevation. It is also necessary for ensuring rural women's access to productive agricultural resources contributes to decreasing world hunger and poverty.

Bangladesh, China agree to elevate their ties to strategic partnership - October 15, 2016

Bangladesh and China have agreed to elevate their bilateral relations to "strategic partnership". It was announced during Chinese President Xi Jinping's visit Bangladesh. This is the first official state visit by Chinese head of state to Bangladesh in three decades since President Li Xiannian's visit in March 1986.

Highlights of Chinese President Xi Jinping's visit

The two countries also have agreed to jointly advance China's One belt and road (OBOR) initiative. With this Bangladesh, formally joined China's OBOR initiative. They also agreed to establish institutional cooperation in areas of maritime issues and counter-terrorism. They also agreed to increase high level exchanges and strategic communication between them. Both countries signed of 26 agreements on different sectors. Through these agreements consensus was reached to work together in trade and investment and other key areas such as infrastructure, energy and power, agriculture, ICT and transportation.

What is One Belt, One Road (OBOR) Initiative?

OBOR initiative is China's ambitious development strategy and framework focuses on connectivity and cooperation among countries primarily between China and rest of Eurasia. It consists of two main components, the land-based "Silk Road Economic Belt" (SREB) and oceangoing 21st Century "Maritime Silk Road" (MSR). OBOR initiative part of China's revived 21st century Silk Road diplomacy that seeks to push it to take a bigger role in global affairs as a major global power.

October 13: International Day for Disaster Reduction - October 13, 2016

The International Day for Disaster Reduction (IDDR) is observed annually on 13 October across the world encourage citizens and governments to take part in building more disaster resilient communities and nations.

Significance of the day: It seeks to spread awareness about reining the risks of disasters around the world and also reduce exposure of people and communities to disasters.

2016 Theme: "Live to Tell: Raising Awareness, Reducing Mortality". The 2016 edition of IDDR marks the launch of the new Sendai Framework for Disaster Risk Reduction by United Nations Office for Disaster Risk Reduction (UNISDR). UNISDR's campaign for the day is Sendai Seven that seeks to create a wave of awareness about actions taken to reduce mortality around the world.

Background

The International Day for Disaster Reduction was instituted by UN General Assembly (UNGA) in 1989 to promote a global culture of risk-awareness and disaster reduction. Earlier, this day was celebrated annually on the second Wednesday of October. But in 2009, the UNGA formally designated 13 October as the annual date by adopting Resolution 64/200.

What is Sendai Framework?

The Sendai Framework is a 15-year voluntary, non-binding agreement which recognizes that the countries have the primary role to reduce disaster risk. It also recognises that this responsibility of countries should be shared with other stakeholders including local government, private sector and other stakeholders. It is the successor agreement to the Hyogo Framework for Action (2005–2015), which was the most encompassing international accord on disaster risk reduction to date. The Sendai Framework also seeks to promote best practices at the international, regional and national level across all sectors, to reduce disaster risk and disaster losses. The framework has seven targets and first of it is reducing disaster mortality. The four priority themes of the Sendai Framework are: (i) Understanding disaster risk, (ii) improving disaster risk governance, (iii) investing in disaster risk reduction (through structural and non-structural measures) and (iv) disaster preparedness, early warning and building back better in the aftermath of a disaster.

NASA develops electroactive bandage to speed up wound healing - October 12, 2016

The NASA (National Aeronautics and Space Administration) has developed a new high-tech electroactive bandage that uses electricity to significantly promote healing of injured wounds. The high-tech bandage creates an electric charge to promote the healing process of wounds in space especially in conditions of non-Earth gravity.

Need

In conditions of non-Earth gravity, human blood displays quite different behaviour from that on Earth. In case of injury in space, wounds heal more slowly Considering the survival risks due to injury and the cost of space missions, healing wounds as fast as possible is crucial.

Key Facts

The electroactive bandage uses a new material called polyvinylidene fluoride (PVDF) which can be stimulated by pressure of cell growth and body heat. The new material generates a small amount of electricity when interacts with another surface, including human skin. When this electroactive bandage is applied to an external wound site, it utilises low level electrical stimulation to promote wound healing. The bandage speeds the wound's healing process and minimises infection and related complications such as amputation or illness. Potential Applications: This bandage could be used by astronauts in space, military personnel wounded in field, patients who have undergone surgery or who have suffered a serious wound.

October 11: International Day of the Girl Child - October 11, 2016

The International Day of the Girl Child (IDGC) is observed every year across the world on 11 October to recognize girls' rights and the unique challenges girls face around the world.

Significance of Day: The observance of the day seeks to increase awareness of gender inequality faced by girls worldwide based upon their gender and supports more opportunity for girls. This year it was fifth edition of this day after it was observed for first time in 2012.

2016 Theme: "Girls' Progress = Goals' Progress: What Counts for Girls". It calls for action for increased investment in collecting and analyzing girl-relevant, girl-focused and sex-disaggregated data.

Background

The International Day of the Girl Child (IDGC) was instituted by the United Nations General Assembly (UNGA) by adopting Canada backed Resolution in December 2011. The observation of the day supports more opportunity for girls. It also increases awareness of gender inequality faced by girls worldwide based upon their gender. This inequality includes areas such as right to education, nutrition, medical care, legal rights and protection from discrimination, violence and unfree child marriage.

Hubble Space Telescope detects Great Balls of Fire - October 10, 2016

NASA's Hubble Space Telescope (HST) has detected Great Balls of Fire (GBF), a mysterious super-hot blobs of gas seen near a dying star. The plasma gas balls were observed near a red giant called V Hydrae, about 1,200 light years away from Earth. Red giants are dying stars that are nearing the end of their fuel supplies and have begun to expand and puff up.

Key Facts

HST had found that these GBFs from V Hydrae are double the mass of Mars and twice as hot as surface of sun. GBF have continued once every 8.5 years for at least past 400 years. They are moving so fast in space that they would take only half an hour cover distance between moon and Earth. If scientists are able to discover origin of these balls, it could explain other weird shapes seen in the cloud of gas around dying stars, which is difficult for scientists to explain at present.

About Hubble Space Telescope (HST)

HST is a space telescope that was launched in 1990 by NASA in collaboration with European Space Agency. It is named after the astronomer Edwin Hubble and is still in operation. It is managed by NASA's Goddard Space Flight Center in Greenbelt, Maryland. Its operations are conducted by Baltimore based Space Telescope Science Institute (STScI). It is located in low Earth orbit outside

the distortion of Earth's atmosphere that allows it to take extremely high-resolution images. Its successor, James Webb Space Telescope (JWST), is scheduled for launch in 2018.

OPEC agrees on modest oil production curbs - October 1, 2016

The Organisation of Petroleum Exporting Countries (OPEC) reached an agreement to cut oil production for the first time since 2008 after an informal meeting in Algiers, Algeria. It was decided that OPEC would reduce output to a range of 32.5 to 33.0 million barrels per day (bpd) from its current output at 33.24 million bpd. However, how much each country will or reduce its output will be decided at the OPEC's next formal meeting scheduled in November 2016. In this meeting, special invitation will be sent to Russia (non-OPEC member) to join cuts in production.

Impact on India

India, being the 3rd largest importer of crude oil imports 85% of total oil and 95% of natural gas from OPEC nations. In recent time due to cheaper oil prices in international market due to overproduction and non-coordination among OPEC countries Indian economy had immensely benefited. However, this decision may result in spike in oil prices which can have major implications for the India's current account deficit and overall economy in general. In recent times, lower oil prices kept the Indian economy on the shining path and managed to keep inflation under control making it fastest growing economy in G20 countries.

About Organization of the Petroleum Exporting Countries (OPEC)

The OPEC is an intergovernmental organization of 14 oil-exporting developing nations that coordinates and unifies the petroleum policies of its member countries.

Established: 1960 in Baghdad, Iraq by the first five members.

Headquarters: Vienna, Austria.

OPEC Members: Algeria, Angola, Libya, Nigeria and Gabon (from Africa); Indonesia, Iran, Iraq, Saudi Arabia (the de facto leader) Kuwait, Qatar, United Arab Emirates (from Asia); Ecuador and Venezuela (from Latin America).

As of 2015, these 14 OPEC member countries accounted for an estimated 43% of global oil production and 73% of the world's oil reserves. Two-thirds of OPEC's oil production and reserves are in its six Middle Eastern (west Asian) countries that surround the oil-rich Persian Gulf.

World's first three-parent baby born in Mexico - September 29, 2016

The world's first three-parent baby boy was born in Mexico to a Jordanian couple with the help a controversial new fertility technique that incorporates DNA from three people in the embryo. The 'three-parent' technique also known as Mitochondrial donation (Mitochondrial Replacement Therapy) allows parents with rare genetic mutations to have healthy babies. What is the case? The boy's mother was carrying genes for Leigh syndrome, a fatal genetic disorder that affects the brain, muscles and nerves of developing infants. Genes for the genetic disease reside in DNA in the mitochondria (powerhouse of the cell), which provide energy for our cells. In this case spindle nuclear transfer was used to remove the faulty nucleus from one of the mother's eggs and inserted it into a donor egg that had its own nucleus removed. The resulting egg with nuclear DNA from the mother and mitochondrial DNA from a donor – was then fertilised with the father's sperm to create embryos. This embryo was implanted in the mother and the child was born nine months later in April 2016. Researchers have tested the boy's mitochondria and found it contains less than 1% mutation.

What is Mitochondrial Replacement Therapy (MRT)

MRT or Mitochondrial donation is a medical technique in which defective mitochondria carried by a woman is

replaced with the healthy mitochondria of a donor. Through invitro fertilization technique (IVF), the egg is then fertilised with the partner's sperm. Thus the embryo remains free from any such defects. The two most common techniques in mitochondrial donation are maternal spindle transfer and pronuclear transfer. Thus this medical technique prevents the transmission of mitochondrial (genetic) disease from one generation to the next. MRT proposes to give parents chance of having a child that is over 99% genetically matched to them and most importantly free of the mitochondrial disease.

World's largest radio telescope built in China - September 26, 2016

China has built world's largest radio telescope nicknamed Tianyan (Heavenly Eye" or "The Eye of Heaven) or the five-hundred-metre aperture spherical radio telescope (FAST). It has started its operation and is part of China's drive to become a science powerhouse. It is located in the Dawodang depression (vast natural crater), a natural basin in Pingtang County in the Guizhou Province, Southwest China.

Key Facts

With its opening, the intensive testing phase of the telescope will begin. It will take nearly three years to calibrate the instruments of telescope to become fully operational. The facility is part of China's drive to become a science powerhouse. It is an ambitious project of the National Astronomical Observatories of China. It is the world's largest filled aperture (single dish) radio telescope and the second largest radio telescope after the Russian RATAN-600, which has a sparsely filled aperture. It is made up of 4,450 panels and has reflector as large as 30 football pitches. It has 500 meters diameter, giving it more sensitivity. It will be used to search for signs of intelligent life and to observe distant pulsars – tiny, rapidly spinning neutron stars believed to be the products of supernova explosions. It will be also used to study stellar radio emissions, gravitational waves and potentially signals from extraterrestrial civilizations. China's best supercomputers the SkyEye-1 will be used to process the massive amounts of data supplied by FAST.

World leaders adopt New York Declaration for Refugees and Migrants at UNGA - September 21, 2016

United Nations

World leaders have adopted New York Declaration for Refugees and Migrants at the United Nations General Assembly (UNGA). The declaration expresses the political will of world leaders to protect the rights of refugees and migrants to save lives and share responsibility for large movements on a global scale.

By adopting it UN member states are making bold commitments to

Develop guidelines on the treatment of migrants in vulnerable situations. Start negotiations leading to an international conference and adoption of global compact for safe, regular and orderly migration in 2018. Achieve a more equitable sharing of the burden and responsibility for hosting and supporting the world's refugees by adopting global compact on refugees in 2018.

Commitments of declaration

Protect human rights of all refugees and migrants. It includes rights of girls and women and also promote their full, equal and their meaningful participation to find solutions. Ensure that all refugee and migrant children receive education within few months of arrival. Prevent and respond to gender-based and sexual violence. Support countries receiving, rescuing and hosting large numbers of refugees and migrants Condemn strongly xenophobia against refugees and migrants and support global campaign to counter it. Strengthen positive contributions made by migrants for their social and economic development in their host countries. Improve delivery of humanitarian and development assistance through innovative multilateral financial solutions to those countries most affected. Strengthen global governance of migration by bringing the International Organization for Migration (IOM) into the UN system.

National Current Affairs

India, Russia sign 16 agreements across diverse sectors - October 15, 2016

India and Russia have signed 16 agreements across diverse sectors including in defence, infrastructure, energy, space, ship building sectors etc. They were signed following delegation-level talks co-chaired by Prime Minister Narendra Modi and Russian President Vladimir Putin during the 17th India-Russia Annual Bilateral Summit in Goa.

Some of the signed agreements are

- Agreement on cooperation in International Information Security.
- MoU for expansion of bilateral trade and economic cooperation.
- Shareholder agreement for establishing a Joint Venture to manufacture Ka-226T helicopter in India.
- MoU for developing smart cities in Andhra Pradesh and Haryana and for developing transport logistics systems for such cities.
- MoU between Gazprom and Engineers India Limited (EIL) for the joint study of a gas pipeline to India from Russia and other areas of cooperation.
- Cooperation Agreement between Rosneft Oil Company and ONGC Videsh Limited (OVL) in the area of Education and Training.
- MoU for setting up an investment fund of $1 billion by the National Investment and Infrastructure Fund (NIIF) and the Russian Direct Investment Fund (RDIF).
- MoU for Cooperation between Russian and Indian Railways in increasing the speed of trains between Nagpur- Hyderabad/ Secundrabad.
- MoU between ROSCOSMOS and ISRO on Mutual Allocation of Ground Measurement Gathering Stations for NAvIC and GLONASS.
- Inter-governmental agreements (IGAs) for the procurement of S-400 Air Defence System and construction of 1135.6 series of frigates.
- MoU between India's Department of Science and Technology and Russia's Federal Agency for Scientific Organisations.

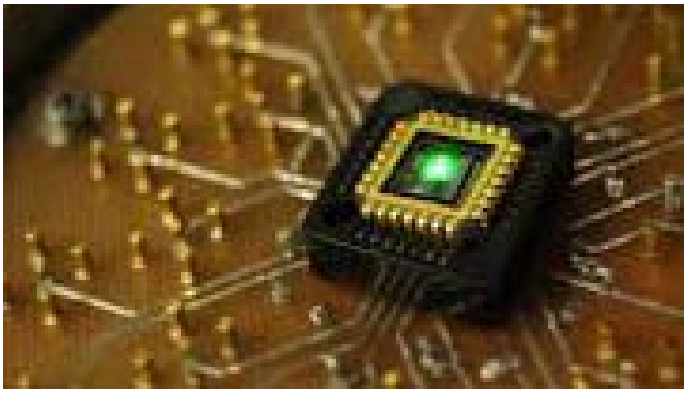
2nd Rashtriya Sanskriti Mahotsav begins in New Delhi - October 15, 2016

The second edition of Rashtriya Sanskriti Mahotsav (RSM)-2016 was inaugurated by Union Home Minister Rajnath Singh at Indira Gandhi National Centre for Arts in New Delhi. The 10-day event aims to showcase the rich cultural heritage of India in all its rich and varied dimensions.

Key Facts

RSM 2016 will showcase Handicrafts, Painting, Cuisine, Photography, Sculpture, Documentation and Performing Arts-Folk, Tribal, Classical and Contemporary in one place. Nearly 2,000 artists from across the country will showcase India's cultural heritage through performances, arts during the cultural extravaganza. It is one of the five such festivals planned in this financial year in different parts of India including Bangalore, Varanasi and Jammu and Kashmir. Under this cultural event, seven zonal cultural centres have been given slots to present their arts during the festival. It will showcase an amalgamation of 'Ek Bharat, Srestha Bharat', 'Hamaari Sanskriti, Hamaari Pahchaan' and 'Swachh India'.

IISc researchers develop self-powered UV photodetector for self-charging energy storage devices - October 15, 2016



The researchers from the Indian Institute of Science (IISc), Bengaluru have developed a cost-effective, high-performance, self-powered UV photodetector. The self-powered UV photodetector can use the harvested optical energy for direct self-charging of energy storage devices such as supercapacitor. It can also be used for operating electronic devices in the absence of external power source.

What is Photodetector? Photodector is a device capable of sensing (detecting) or responding to electromagnetic energy, typically light by using the electrical effect of individual photons.

What researchers have developed?

The researchers have developed the photodetector by integrating semiconducting vanadium doped zinc oxide (VZnO) nanoflakes with a conducting polymer. The zinc oxide (ZnO) is the base material for UV detection which can be doped with vanadium to produce photodetectors that are self-powered. The photodetector has superior performance in terms of faster detection of photo signals in the order of milliseconds even when UV light intensity is low.

How it works?

When doped with vanadium, the microstructure of ZnO changes from nanorods to closely-packed nanoflakes. It causes increase in the surface area to the volume of the material. It also creates surface defects within the band gap of ZnO, which helps in trapping the UV radiation that falls on the nanoflakes. These nanorods are one-dimensional and cause more light reflection from top surface. When UV light enters into pores it undergoes multiple reflections and finally gets absorbed.

What are potential benefits?

The nanoflake (VZnO) produces five times more photocurrent, compared with ZnO, which generates only 40 nA photocurrent. Once these nanoflakes are hydrogenated, the current generation capacity further increased to 1,000 nA. When these hydrogenated nanoflakes exposed to UV light, they detect photo signal within milliseconds, which is nearly 100 times faster than conventional UV photodetectors. VZnO nanoflakes structure has 98% light harvesting efficiency which is much higher than 84% seen in ZnO.

National Seismic Programme launched in Odisha - October 15, 2016

The Union Government has launched National Seismic Programme (NSP) to trace hydrocarbon resources like oil and natural gas in Mahanadi basin. It was launched by Union Minister of State (MoS) for Petroleum and Natural Gas at Taranga village under Soro block in Balasore district of Odisha.

Significance

Mahanadi basin has been chosen as the first location for the roll out of this national-level programme. The outcome from the NSP help in better understanding of the sub-surface with petroleum systems across wider geological ages especially in sedimentary basins to explore hydrocarbon reserves in Odisha.

What is National Seismic Programme (NSP)?

NSP aims to undertake a fresh appraisal in all sedimentary basins across India in order to have better understanding of the hydrocarbon potential of the country. Under this programme, high-resolution 2D seismic Acquisition, Processing and Interpretation (API) survey will be conducted across India especially in the sedimentary basins. The survey will be conducted by state owned Oil and Natural Gas Corporation (ONGC) and Oil India Limited (OIL). The survey project will be completed by March 2019. ONGC will conduct the survey of around 40,835 Line Kilo Meter (LKM) in onland part of 26 sedimentary basins in 18 states/UTs including Mahanadi basin. While OIL will carry out the survey of 7,408 LKM in the North eastern states of Assam, Manipur, Arunachal Pradesh, Mizoram and Nagaland.

Himansh, India's remote, high-altitude station opens in Himalayas - October 11, 2016

A high altitude glaciological research station in Himalaya called Himansh (meaning a slice of ice) began functioning above 13,500 ft (4000 m) in a remote region in Spiti, Himachal Pradesh. Researchers will use this station as a base for undertaking surveys that would digitize the glacier motion and snow cover variations with exceptional precision.

Key Facts: Himansh station will provide much needed fillip to the scientific research on Himalayan glaciers and its hydrological contribution. The research lab has been established by the National Centre for Antarctic and Ocean Research (NCAOR) in Spiti Valley, one of the most uninhabited parts of the country The station houses instruments to quantify glacier melting and its relation to changing climate. Some of the instruments available at this research facility include automatic weather stations, ground penetrating radars, geodetic GPS systems and other sophisticated facilities. It will also serve as the base for Terrestrial Laser Scanners (TLS) and Unmanned Aerial Vehicles (UAVs) for undertaking surveys.

Significance: The Himalayan region has the largest concentration of glaciers outside the polar caps. It is called the "Water Tower of Asia". It is source of 10 major river systems that provide irrigation, drinking water and power for over 700 million people (10% of world's population) living in India, Pakistan and Bangladesh. Thus, understanding behaviour of these Himalayan glaciers and their contribution to sustainable supply of water for mankind and agriculture is one of grand challenges of Indian scientific community.

4th BRICS Science, Technology and Innovation Ministerial Meeting held at Jaipur - October 11, 2016

The 4th BRICS Science, Technology and Innovation Ministerial Meeting was held at Jaipur, Rajastan. The

purpose of the meeting was to further strengthen the collaboration amongst the BRICS countries in the areas of Science, Technology and Innovation (STI).

Key Facts: The meeting adopted a five-pronged approach, viz. Institution Building, Implementation, Integration, Innovation and Continuity. In alignment with the theme of India's Chairmanship of 8th BRICS Summit, Building, Responsive Inclusive and Collective Solutions, Jaipur Declaration was unanimously adopted. The BRICS member countries have resolved to intensify, diversify and institutionalize STI cooperation through the BRICS innovation and research initiative. India's proposal to establish a BRICS Science and Technology driven Entrepreneurship and Innovation Partnership Programme to harness innovativeness of youth was also agreed.

IAE to tie up with India for its global LED programme - October 10, 2016

The International Energy Agency (IAE) is going to partner with India to implement its Unnat Jyoti by Affordable LEDs for All (UJALA) initiative globally for energy savings. IAE has been impressed with performance of India's UJALA programme in terms of vastly improving access to LED lighting while reducing their cost drastically.

Key Facts: The UJALA scheme is implemented by the Energy Efficiency Services Limited (EESL), a joint venture of PSUs under the Union Ministry of Power. The price at which EESL has been purchasing LED lights to distribute under UJALA scheme has been consistently falling over the last couple of years Along with this, production has also been ramped up to about 4 crore per month from the 10 lakh a month in 2014 to support the implementation of scheme.

About Unnat Jyoti by Affordable LEDs for All (UJALA) scheme

UJALA scheme is LED-based Domestic Efficient Lighting Programme (DELP) that aims to promote efficient lighting, reducing energy consumption and energy savings. It was launched as National LED programme by Prime Minister Narendra Modi in January 2015. It was renamed UJALA in March 2016. Under it, every grid-connected consumer having a metered connection from their respective Electricity Distribution Company will get the LED bulbs at subsidized rates. Benefits: (i) Electricity savings (ii) Reduction of load (iii) Reduction of consumer bills (iv) Greenhouse gas emission reductions. Note: LED bulbs have a very long life, almost 50 times more than ordinary bulbs. They are 8-10 times that of CFLs, therefore provide both energy and cost savings in medium term.

India's first international arbitration centre inaugurated in Mumbai - October 8, 2016

The first International Arbitration Centre of India was inaugurated in Mumbai, Maharashtra to provide an arbitration platform for Indian business houses to negotiate commercial disputes. The Mumbai Centre for International Arbitration (MCIA) was launched by Maharashtra Chief Minister Devendra Fadnavis.

Key Facts: With this Maharashtra becomes first state in the country to clear policy for institutional arbitration. It is also considered as a major step towards making Mumbai an International Financial Services Centre (IFSC) The MCIA will be an independent, not-for-profit organization (NGO) governed by a council comprising eminent national and international legal luminaries. It will provide world-class infrastructure for arbitration, 24×7 functionality and live transcription services recording during arbitration proceedings for transparency. It will be in sync with the Make in India campaign and will provide a time bound and cost-effective facility to reinforce investor confidence.

Background: At present, in absence of an international arbitration centre in the country most of the business disputes involving Indian parties land in Singapore or London International Arbitration Centres. Indian parties make up an estimated 30% of the arbitration cases handled by the Singapore and London Arbitration Centres. The total outflow of funds to resolve such cases along with logistics and other related expenditure is around $5 billion. MCIA will significantly bring down this cost.

Maharashtra becomes 17th state to join UDAY Scheme - October 8, 2016

Maharashtra became 17th state to Central Government's Ujwal Discom Assurance Yojna (UDAY) scheme. It will help Maharashtra to reap benefits worth Rs 9,725 crore by way of cheaper funds, transmission losses, energy efficiency and coal reforms during the period of the turnaround. Under the UDAY Scheme, Maharashtra has committed to take more than 75% of the discom's non-capex debt of around 6,600 crore rupees in the current year. The balance 25% debt will be converted into bonds or re-priced at cheaper rates which will reduce the interest burden by 595 crore rupees.

About Ujwal DISCOM Assurance Yojna (UDAY)

UDAY Scheme was launched by Union Ministry of Power for financial restructuring of debt of Power Distribution companies (DISCOMs). It aims for financial revival and turnaround of DISCOMs and also ensures a sustainable permanent solution to the problem. Power DISCOMs of states by joining this scheme can convert their debt into bonds which can be issued in market as well as roll out number of measures to improve efficiency at power plants. It will make DISCOMs financially and operationally healthy so they can supply adequate power at affordable rates. It will help in reduction in interest cost of DISCOMs and enforcing financial discipline in DISCOMs through alignment with State finances.

Union Government approves Rs.114 crore worth projects under HRIDAY Scheme - October 7, 2016

The Union Ministry of Urban Development has approved projects worth Rs.114 crore under HRIDAY scheme for improving infrastructure facilities around core heritage sites in five cities. These five cities are: Varnasi (Uttar Pradesh), Amritsar (Punjab), Dwaraka (Gujarat), Puri (Odisha) and Warangal (Telangana). Projects in these districts were selected based on recommendation of inter-Ministerial HRIDAY National Empowered Committee.

About Heritage Infrastructure Development and Augmentation Yojana (HRIDAY)

HRIDAY is a Central Scheme that aims to preserve and rejuvenate the rich cultural heritage of the country. The scheme will be completely funded by the Central Government to create infrastructure and provide facilities around the heritage sites to attract more tourists. It aims to bring urban planning, economic growth and heritage conservation together for heritage cities. It seeks to promote an inclusive, sustainable and integrated development of heritage sites, focusing on maintenance of monuments and advancement of their entire ecosystem.

Objectives of Scheme: (i) Bring urban planning, economic growth and heritage conservation together for heritage cities. (ii) Beautification of heritage cities in an inclusive and integrated manner with prime focus on livelihoods, skills, cleanliness, security, safety, accessibility and faster service delivery. (iii) Guide conservation, restoration, future use and development of heritage cities. (iv) Create improved connectivity platform and access to tourists.

It will help to harness full potential of India's tourism sector which has total 35 UNESCO recognized natural, cultural and mixed heritage sites. India ranks second in Asia and fifth in the world in terms of heritage sites.

India's communication satellite GSAT-18 successfully launched from French Guiana - October 6, 2016

India's latest communication satellite GSAT-18 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). 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.

Key Features of GSAT-18

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 including Ku-band beacon for accurately pointing ground antennas towards the satellite. These transponders will provide services in Upper Extended C-band, Normal C-band and Ku-bands of the frequency spectrum. GSAT-18 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 also enable continuity of vital communication services by replacing ageing satellites of ISRO. Master Control Facility (MCF) of ISRO at Hassan, Karnataka will control the satellite.

Rajasthan becomes first state to adopt LED street lights under all ULBs - October 1, 2016

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.

Key Facts: 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. 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.

Indian Army carries out surgical strikes on terror launch pads across LoC - September 29, 2016

Indian Army has successfully conducted surgical strikes on terror launch pads across the Line of Control () in Pakistan-Occupied Kashmir (PoK) i.e. along India's de-facto border with Pakistan. The surgical strikes were India's first direct military response to attack on Uri army base by Pakistan-based militants that had killed 18 Indian soldiers. The motive of the operation was to hit out at the terrorists who were planning to infiltrate into the Indian territory. During the operation, significant casualty was caused to terrorists . The cross-border action comes India reviewed Indus Waters Treaty with Pakistan and pulled out of the regional SAARC Summit that was scheduled to be held in Islamabad, Pakistan as part of a wider diplomatic offensive to isolate Pakistan.

What is surgical strike?

Surgical strike is a military attack which is intended to only damage to the intended legitimate military target and no or minimal collateral damage to surrounding structures, general public infrastructure, vehicles, buildings and utilities.

Sports Current Affairs

Brazil wins inaugural BRICS U-17 Football Tournament - October 15, 2016

Brazil 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. For Brazil goals were scored by Paulo Henrique Samapaio Filho (24th Minute), Vinicius de Oliveira (34th minute), Victor de Oliveira (40th & 61st minute). For South Africa only goal was scored by S'miso Bophela . Earlier in the match for the third place between Russia and China, Russia had defeated China by 2-1 goals.

About BRICS U-17 Football Tournament

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.

Jitu Rai wins Champion of Champions pistol award of ISSF - October 12, 2016

Ace Indian Shooter Jitu Rai has won the 2016 Champion of Champions pistol Award of the International Shooting Sport Federation (ISSF) for pistol shooting. He won the award consisting cash prize of €5000 in the World

Cup Final held in Bologna, Italy. In the 10 m Air Pistol Champions Trophy final Jitu Rail defeated Damir Mikec of Serbia by 29.6 to 28.3 points. Olympic champion Anna Korakaki finished third in this event.

10 m Air Pistol Champions Trophy

It 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. Other Awards In the rifle event category, the honour went to Sergey Kamenskiy of Russia. He had defeated two-time Olympian Du Li of China by 31.7 to 31.6 points. London Olympics champion Yi Siling of China took the third place.

Sports Sector Gets the Infrastructure Status - October 1, 2016

The Union Finance Ministry has decided that sports infrastructure will be included under the harmonised master list of infrastructure sub-sectors. Earlier, the Ministry of Youth Affairs & Sports Affairs had moved the proposal for inclusion of sports in the list to address the issue of deficit of sports infrastructure in the country.

Key Facts

It will include sports stadia and infrastructure for academies for training and research in sports and sports-related activities in the infrastructure sub-sectors. With this, sports sector becomes eligible for obtaining long term financial support from banks and other financial institutions on same principle available to other infrastructure projects. It will also encourage private investment in a public good which has socio-economic externalities in a country with young population. It will also bolster investment in sports infrastructure sector which will contribute to the economy and help in promotion of health and fitness of the people. It will also provide opportunities for employment in the new and existing sectors. Besides, investment from private sector will widen the platform from where the country can become a sporting power in future.

Indian women's kabaddi team wins gold medal in Asian Beach Games - September 30, 2016

Indian women's beach kabaddi team has won the gold medal at the 5th Asian Beach Games held in Danang, Vietnam. In the final match, Indian team defeated Thailand by 41-31 score. With this, Indian women's kabaddi team has won the title for the record fifth time in succession. For Thailand, it was the fifth time in a row they had lost to India in a final. The Indian women's kabaddi team won the gold medal since the inception of the biennial Games in 2008. Earlier in women's 70kg category kurash (a form of wrestling originated in Uzbekistan), Amisha Tokas had won a silver after losing to Nguyen Thi Lan of Vietnam in the final. In beach bodybuilding, India's Manoj Kumar Majumdar also had won a bronze medal in upto 158cm category. So far, India has won six medals (1 gold, 3 silver, 2 bronze) in the Games and is at 15th spot in the medal table which is headed by hosts Vietnam (25 gold, 22 silver, 27 bronze).

India wins historic 500th Test against New Zealand - September 27, 2016

India has won the test match against New Zealand by 197-runs in their historic 500th cricket Test in Kanpur. On the fifth and final day of the match at Green Park, India bowled out the visitors for 236 in their second innings. Shortly after Lunch, they set them an improbable target of 434. Senior off-spinner Ravichandran Ashwin had taken 6 wickets in the innings, completed his fifth six-wicket haul in his career. Ravinder Jadeja was declared Man of the Match for his fine all-round performance. He had taken six wickets and scored 92 runs in the match. This victory was India's 88th on the home turf. It also gave them a

1-0 lead in the three-Test series. With this, India has now taken their unbeaten tally on home soil to 11 matches. On the other hand New Zealand has remained without a win on the Indian soil since 1998. Special Note India is the 4th country to play 500 Tests in a format which has 10 participants. Others are England (played 976 test matches), Australia (791) and West Indies (517). The first ever Test match was played by India in England on June 25, 1932 under Douglas Jardine. CK Nayudu was the captain of the Indian team.

Sathiyan Gnanasekaran wins Belgium Open title of Table Tennis - September 27, 2016

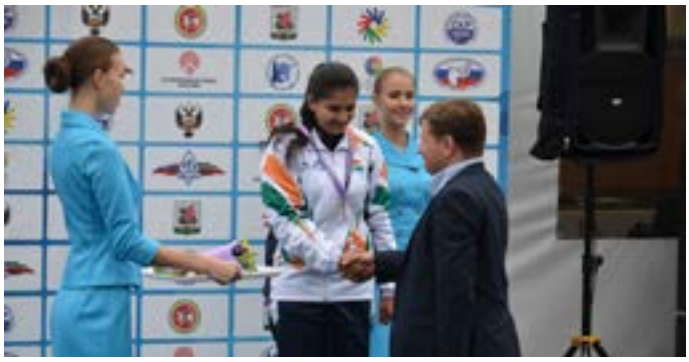
Indian paddler Sathiyan Gnanasekaran has won the Belgium Open title of the table tennis in the men's singles category. This was his first pro title. In the final match played at De Haan in Belgium, he defeated defeating local player Nuytinck Cedric 4-0 score in the final with 15-13, 11-6, 11-2, 17-15. With this victory, he becomes only the second Indian table tennis player to win an ITTF event. Achanta Sharath Kamal was the first Indian table tennis player to win an ITTF event in 2012. In the quarterfinals match of the event he had defeated Steffen Mengel (world number 75).

Pinky Balhara wins bronze medal in 5th Asian Beach Games - September 26, 2016

India's Pinky Balhara has won bronze medal in the sporting event of kurash at the 5th Asian Beach Games held at Da Nang, Vietnam. She won the medal in women's 52kg category after she lost to Nguyen Thi Thanh Thuy of Vietnam in the semifinals. Vietnam's Nguyen Thi Thanh Thuy won the gold medal in this event while another Vietnamese Nguyen Thi Quynh won the silver medal. To participate in the 5th Asian Beach Games, India had sent a contingent of 208 members. The athletes will participate in 13 sporting disciplines which include Kabaddi, Swimming, Handball, Pencak Silat, Kurash, Woodball, Sambo, Ju-Jitsu, Pentaque, Sepaktakraw, Shuttlecock, Voninam and Muay Thai.

About Kurash: Kurash is a form of wrestling that had originated from Uzbekistan. In this game, two opponents wear a green and a blue jacket. The participants try to throw the other on the ground. If a player throws down his opponent backward, then he is declared victorious. If the opponent is thrown to one side, then the points are awarded.

Priyesha Deshmukh wins bronze medal in World Deaf Shooting Championships - September 19, 2016



India's Priyesha Deshmukh (23) has won a historic bronze medal in the first World Deaf Shooting Championships held in in Kazan, Russia. She claimed the third position with total score of 180.4 in the 10 metres air rifle category and it was her maiden international participation. In the finals, Ukraine's Svitlana Yatsenko (201.6) and Serbia's Gordana Mikovic (200.3) won gold and silver medals respectively. Priyesha Deshmukh had qualified for the medal or final round after scoring 404.9 in the qualification round. Since last three years, she has been winning national gold in her the handicapped category.

Banking Awareness

RBI Policy Rates, Reserve Ratios, Lending and Deposit Rates

Policy Rates & Reserve Ratios:

Policy Repo Rate	: 6.25%
Reverse Repo Rate	: 5.75%
Marginal Standing Facility Rate	: 6.75%
Bank Rate	: 6.75%
CRR	: 4%
SLR	: 20.75%

Exchange Rates:

RBI Reference Rate

INR / 1 USD	: 66.7411
INR / 1 Euro	: 73.1482
INR / 100 Jap. YEN	: 64.3500
INR / 1 Pound Sterling	: 81.9114

Lending / Deposit Rates:

Base Rate	: 9.30% - 9.65%
MCLR (Overnight)	: 8.80 - 9.10%
Savings Deposit Rate	: 4.00%
Term Deposit Rate > 1 Year	: 7.00% - 7.30%

Banking News

Four PSBs may struggle to pay AT1 bond coupons - October 13, 2016

Four public sector banks (PSBs) may struggle to make coupon payments on their additional tier 1 (AT1) bond as they have reported heavy losses due to a surge in bad loans. In this case coupon payment is an annual interest paid on the face value of a bond. It is expressed as a percentage. AT1 bond is issued under Basel III capital regulations.

Why PSBs finding difficult to pay them?

The main reasons that may affect ability of PSBs to pay coupon on AT1 bonds are decline in profitability and increasing losses that may wipe out their revenue reserves.

Government's position

Union Government has committed capital support to these PSBs on the coupon on AT1 bonds. However, this support can only be serviced through PSBs current year's

profit or from revenue reserves. Thus, any capital infusion by the government alone cannot help the banks to service coupon on these bonds.

What are Additional Tier 1 (AT1) Bonds?

AT1 bonds are the hybrid bonds that combine debt and equity elements. They are also called as contingent convertible capital instruments (CoCos). AT1 or Cocos bonds have their roots in financial crisis when governments were forced to bail out banks. They are the riskiest debt issued by banks and do not have any set maturity date. The defining characteristic of AT1 or Cocos bond is that it may be converted into shares when certain conditions are met. For example, when a company runs into trouble, the owners lose their stake and the debt becomes equity, lenders turns into owners. But in case of banks such negotiations are not possible. The coco bonds are designed to anticipate that process and transform automatically from debt to equity.

Payment Banks need RBI's Prior product approval - October 7, 2016

The Reserve Bank of India (RBI) has notified entities that have been granted a payments bank (PB) licence will need to take specific approval for products they would be offering to customers. In this regard, RBI has issued separate operating guidelines for payments banks in view to focus on financial inclusion.

Key Facts

Employee of Payment Bank should be available for sufficient duration at a fixed location to attend customers. They must at least have 25% of access points in un-banked rural areas. The main mandate of Payment Banks is to offer remittance services. They will be not allowed to lend. Payment Banks can also offer simple financial products like insurance and mutual funds. The RBI may place suitable restrictions on the design, functioning, or other features of the product of Payment Banks. RBI may even discontinue the product launched by Payment banks if it feels that the product is not suitable for customers. RBI it will have no objection to payments banks making arrangements with other scheduled commercial bank or small finance bank.

RBI Panel moots easing bank branch norms - October 7, 2016

The Reserve Bank of India (RBI) Internal Working Group (IWG) on Rationalisation of Branch Authorisation Policy has proposed easing bank branch norms. It was chaired by Lily Vadera. It has proposed to relax norms that a bank branch has to follow, like a building, number of employees etc to facilitate financial inclusion.

Key Recommendations

Bank branches including those manned by business correspondents providing minimum 4 hours of service for 5 days a week, should be allowed to be treated as a full-service branch. Any other fixed point unit of the bank not complying with minimum working period should be considered a 'part-time banking outlet' A part-time banking outlet can be opened in any centre. It will be counted in for computing requirement of having 25% branches in rural areas. Redefined the un-banked rural centre (URC) as a rural (tier V and VI) centre that does not have a core banking solution-enabled 'banking outlet.'

RBI cuts repo rate by 25 bps in 4th Bi-monthly Monetary Policy Statement - October 5, 2016

The Reserve Bank of India (RBI) in its fourth bi-monthly monetary policy review for year 2016-17 has cut the repo

rate by 25 basis points to 6.25%. This monetary policy decision was taken by the newly constituted Monetary Policy Committee (MPC). This was also Urjit Patel's maiden monetary policy announcement as RBI Governor. All the six members of MPC unanimously decided to cut key policy rate with the aim of achieving a midterm inflation target of 4% within a band of plus or minus 2%. With this, RBI moved away from tradition of RBI governor having the final say on monetary policy decisions.

SBI becomes first domestic bank to open branch in Yangon, Myanmar - October 4, 2016

State Bank of India

India's largest lender State Bank of India (SBI) has announced the opening up its foreign branch in Yangon, the capital city of Myanmar. With this, SBI became the first domestic bank of India to open a branch in Myanmar. The Yangon branch is the 54th foreign branch of the SBI. 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 Myanmarese central bank allowed SBI to open a branch with the primary objective of extending wholesale banking services to foreign corporates.

Background

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. Earlier SBI was also associated with Myanmar since 1861, when the erstwhile Bank of Bengal (BoB) operated its branch in the then Rangoon. Later the operations of the Rangoon branch of SBI were taken over by the Peoples' Bank of Burma in February 1963 as part of bank nationalisation.

Union Government notifies constitution of Monetary Policy Committee - September 30, 2016

The Union Government has notified the constitution of the six members Monetary Policy Committee (MPC). In this regard, the Union Finance Minister has used powers designated under the section 45ZB of the Reserve Bank of India (RBI) Act, 1934 to constitute MPC. Composition of MPC Urjit Patel: RBI Governor (Chairperson). R Gandhi: Deputy Governor RBI in charge of Monetary Policy (Member). Michael Patra: Executive Director of RBI (Member). Chetan Ghate: Professor, Indian Statistical Institute (ISI) (Member). Professor Pami Dua: Director, Delhi School of Economics (DSE) (Member). Ravindra H. Dholakia: Professor Indian Institute of Management (IIM), Ahmedabad (Member).

About Monetary Policy Committee (MPC)

The six member MPC has been entrusted with the task of fixing the benchmark policy rate (repo rate) required to contain inflation within the specified target level. It will help in determining the Monetary Policy which in turn adds value and transparency to monetary policy decisions. The meetings of the MPC will be held at least 4 times a year and it will publish its decisions after each such meeting. The RBI Act was amended by the Finance Act, 2016 to provide for a statutory and institutionalised framework for MPC. Composition of MPC: As per the provisions of the RBI Act, out of the six Members of MPC, three Members will be from the RBI and other three will be appointed by the Central Government. Governor of RBI (ex officio Chairperson), Deputy Governor of RBI, in charge of Monetary Policy (Member), One officer of RBI (Member) and three members appointed by Central Government as members.

Union Government appoints three economists to Monetary Policy Committee - September 23, 2016

The Appointments Committee of Cabinet (ACC) has appointed three economists as the external appointees on the Monetary Policy Committee (MPC). They are Pami Dua, Chetan Ghate and Ravindra Dholakia. They will have a fixed four year term and it is non-renewable.

Pami Dua

She is the Director of the Delhi School of Economics (DSE). She is an expert on econometrics and forecasting, has a Ph.D. from the London School of Economics. Her research work spreads across different fields like business cycle analysis, macroeconomics, econometrics, and forecasting. She is also the Chairperson of the Agricultural Economics Research Centre (AERC) at the University of Delhi.

Chetan Ghate

He is a macroeconomist and a professor at the Indian Statistical Institute (ISI), Delhi. His research focus is on economic growth, economic development, fluctuations and monetary and fiscal policy in developing and emerging market economies. He is the only member of the Technical Advisory Committee (TAC) on Monetary Policy who becomes a member of the MPC.

Ravindra Dholakia

He is a faculty member of Economics at the Indian Institute of Management (IIM), Ahmedabad. He has served as an independent director on the boards of several corporations including Gujarat State Financial Services, Union Bank of India, Air India, and Gujarat State Petroleum Corp.

With this, MPC's composition consists of three Reserve Bank of India (RBI) representatives and three external appointees. They will work to decide interest rates. RBI will be represented by Governor Urjit Patel (Chairman of MPC), Deputy Governor in-charge of monetary policy R. Gandhi and executive director M. D. Patra.

About Monetary Policy Committee (MPC)

MPC under the RBI will decide monetary policy by setting interest rates. It aims to bring significant changes in the power the RBI governor while deciding interest rates. The RBI will set interest rates according to the majority view of the six-member MPC, with the Governor having the casting vote in case of a tie. MPC replaces previous arrangement where RBI Governor along with a Technical Advisory Committee (TAC) taking decisions on monetary policy including setting interest rates. In the previous arrangement TAC was only having advisory functions and the RBI Governor enjoyed veto power over the committee in setting interest rates. Thus, it is expected to bring "value and transparency" to monetary policy decisions taken by central banks which have far-reaching implications on economy, investors, savers and borrowers. Functions: Administer the inflation targeting monetary policy regime through determining the interest rates (policy rate or repo rate) to contain inflation. It will decide the changes to be made to the interest rates to contain inflation within the target level set under the inflation targeting regime. It will meet at least four times a year and make public its decisions following each meeting. Structure: MPC is formed under the RBI with six members. Three members will be from the RBI while the other three members will be appointed by the Central Government. Members from the RBI are Governor who is the chairman of the MPC, a Deputy Governor and one officer of the RBI. The government members to MPC will be appointed by the Central Government on recommendations of a search-cum-selection committee headed by the Cabinet Secretary.

Descriptive Writing

Role of media in a democracy

Democracy means "A system of government in which all the people of a country can vote to elect their representatives". Media came into existence in 1780 with the introduction of a newspaper namely "The Bengal Gazette" and since then it has matured leaps and bounds. It has been playing a very important role in shaping human minds.

Media plays a crucial role in shaping a healthy democracy. It is the backbone of a democracy. Media makes us aware of various social, political and economical activities happening around the world. It is like a mirror, which shows us or strives to show us the bare truth and harsh realities of life. The media has undoubtedly evolved and become more active over the years. It is the media only who reminds politicians about their unfulfilled promises at the time of elections. T.V news channels excessive coverage during elections helps people, especially illiterates, in electing the right person to the power. This reminder compels politicians to be upto their promises in order to remain in power. Television and radio have made a significant achievement in educating rural illiterate masses in making them aware of all the events in their language. Coverage of exploitative malpractices of village heads and moneylenders has helped in taking stringent actions against them by attracting governments' attention. The media also exposes loopholes in the democratic system, which ultimately helps government in filling the vacuums of loopholes and making a system more accountable, responsive and citizen-friendly. A democracy without media is like a vehicle without wheels. In the age of information technology we are bombarded with information. We get the pulse of the world events with just a click of a mouse. The flow of information has increased manifolds. The perfect blend of technology and human resources (journalist) has not left a single stone unturned in unearthing rampant corruption in politics and society. We all are well aware of what tehelka did. Thanks to technology that has brought a kind of revolution in journalism.

The impact of media is really noteworthy. Excessive coverage or hype of sensitive news has led to communal riots at times. The illiterates are more prone to provocations than the literates. Constant repetition of the news, especially sensational news, breeds apathy and insensitivity. For instance, In Dhananjoy Chatterjee case, the overloaded hype led to death of quite a few children who imitated the hanging procedure which was repeatedly shown in most of the T.V. news channels. There is a plethora of such negative impacts. Media should take utmost care in airing or publishing such sensational news. Commercialization has created a stiff competition in media. In order to outdo each other print media has often gone one step further in publishing articles, cover stories, etc. on sex. Media experts say this is one of the means of attracting readers who are glued to T.V. news channels, which have cropped up swiftly in a recent past and they believe this is a cheap form of journalism.

No one is perfect in this world and so is the media. Here I am not degrading the media, rather I would say there is still a lot of scope for improvement by which media can raise upto the aspirations of the people for which it is meant. I cannot think of a democracy without active and neutral media.

Media is like a watchdog in a democracy that keeps government active. From being just an informer it has become an integral part of our daily lives.

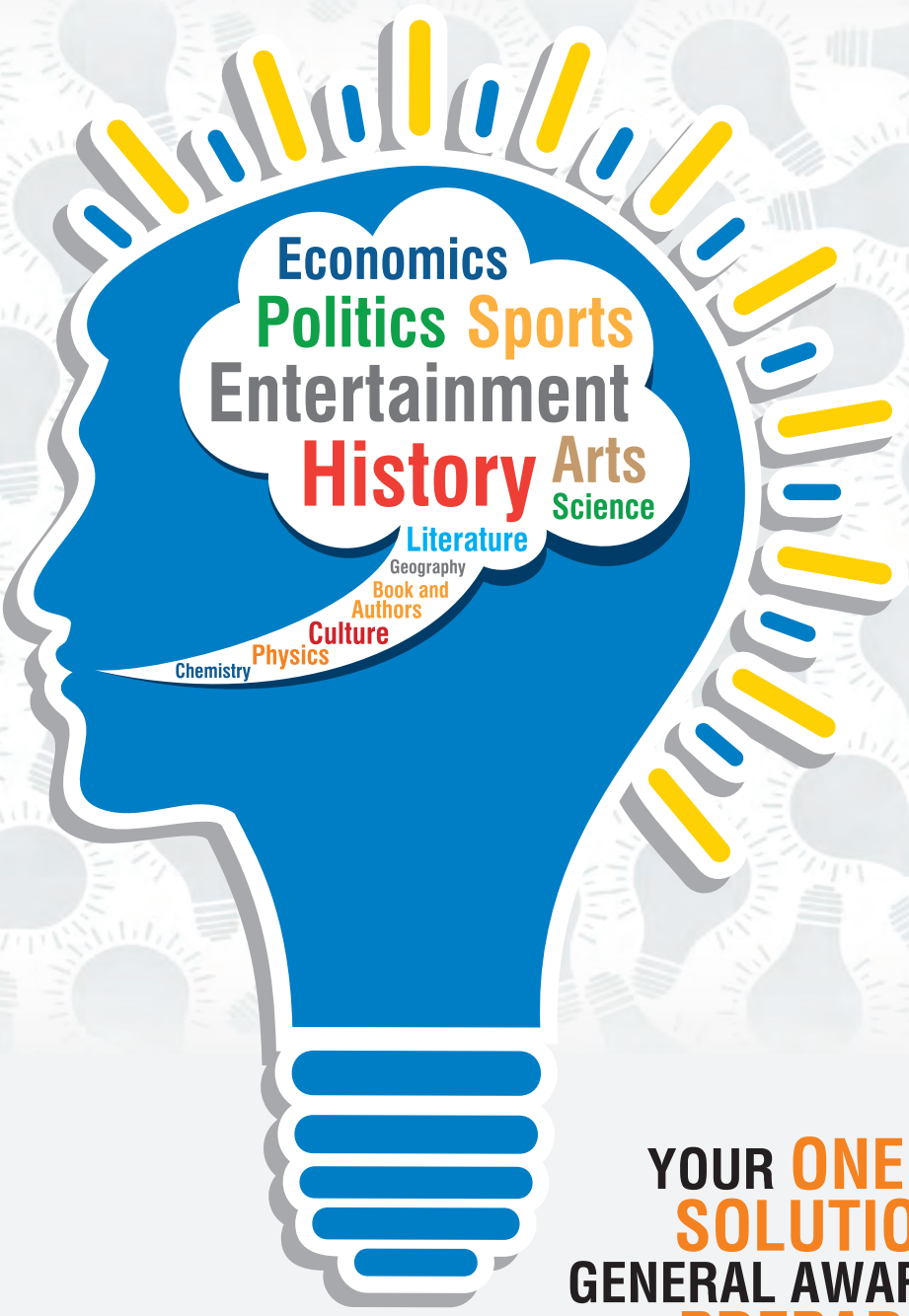
With the passage of time it has become a more matured and a more responsible entity. The present media revolution has helped people in making an informed decisions and this has led to beginning of a new era in a democracy.

Bribery in Business

The survey further reveals that a minimum of 13 clearances are required to start a new venture and the ordeal could last a minimum of 33 days. Obtaining a licence requires 20 clearances and could take 224 days if you remain on the fast track with an open purse. Registering property involves six clearances taking 62 days. Whatever new methods may be devised to check corruption, the Indian ingenuity would find ways of checkmating them. Still, the commission has recommended a unique company number to get all clearances at one go, hoping that this would drive out corruption. Sometimes, one wonders how people are able to get into business and make a success of it. It seems Indian businessman too is equally corrupt and soon learns how to loot and rob the consumer because, ultimately, the costs of bribe are passed on to the buyer and consumer. National Knowledge Commission survey's findings are startling. Sixty-one per cent-who started businesses between 2000-07-said they did not get a bank loan when they started. "There was a high perception among entrepreneurs that it is very difficult to get bank loans at the start-up stage though it becomes comparatively easy at the growth stage", the survey said. Naturally, once you are running an operation, the Bank officials will themselves advise you as to how to hoodwink and overcome the Banks and bypass rules and conditions for a loan at reasonable bribes because while documents may be signed on the table, bribes are paid under the table. Perhaps not. Now even this formality is done away with. Bribes are being taken and given in the open. The biggest motivating factor for becoming an entrepreneur, according to the survey, was the willingness to be independent of the family and a job. Ambition to become rich also plays a part. Strong motivation appears to be the vital factor in entering and surviving in business because the business world is no bed of roses. Bargaining and calculating risks are a necessary part of an enterprise. On top of that, one has to do unlawful things for survival and success. There is a belief that behind every million made, there is a big crime and hundreds of novels have been written on this theme. Both private individual business and corporate business are rife with bribery. Corporate competition is often carried out as a war and bribery and corruption are resorted to because "everything is fair in love and war". Alcatel, one of the "biggest and cleanest corporate entities", finally got exposed in 2001 when Costa Rica prosecutors combed through the bank records and found Alcatel made $15 million in illicit payments to top politicians and bureaucrats and former President Miguel Angel Rodríguez was jailed for accepting bribe from Alcatel.

In Europe, governments are finally cracking down on big business. Transparency International is fighting corruption effectively. The OECD agreement took effect in 1999 in 35 countries, imposing criminal penalties on companies found guilty of bribery. "The climate has definitely changed", says Susan Hawley, an anti-corruption research consultant. "The change in laws is beginning to bite."But India continues to be one of the most corrupt nations of the world.

GQuest



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