



# BRICK

Booklet of <u>R</u>ecent <u>I</u>nformation for <u>Career & K</u>nowledge A half yearly magazine

Volume-4, Issue-II July-December-2018

#### G H PATEL COLLEGE OF ENGINEERING & TECHNOLOGY, VALLABH VIDYANAGAR

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I am really happy to write a message in BRICK (Booklet of Recent Information for Career and Knowledge) which is an initiative of Civil Engineering Department for knowledge enhancement. The first issue of BRICK was released in September, 2016 and it covers details of current affairs, Civil Engineering updates, Smart city updates, general awareness, sports updates, facts English & figures, comprehension, quantitative aptitude.

multiple choice questions and Career options & Job updates for civil engineers. The faculty members of the Department compiled the first issue and students from 2014 batch contributed for second issue. BRICK is published half yearly with the hard work and commitment of faculty members and students. I congratulate all the students and faculty members who have contributed directly or indirectly to various issues of these booklets. Each batch starting from 2014 to 2017 batch had contributed one issue each and all the issues witness the talents and dedications of the students towards extra-curricular accomplishments. The release of the booklet will be accompanied by unique activities and competitions organized by the BRICK-team of students. I appreciate and express my sincere gratitude to the editors and the designers from students and faculty members who have given colourful and attractive features to the booklet.

All the best wishes to students and faculty members for future endeavours too and looking forward for continuous support for the attainments of BRICK!

Dr. Khadeeja Priyan Head of the Department

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#### **Techniques to Optimize Health**

"Health is not just about what you are eating. It is also about what you are thinking and saying."

enerally, a person is said to be enjoying good health when he is mentally and physically fit. Health is a dynamic condition resulting from a body's constant adjustment and adaptations in response to stresses and changes in the environment. There are various components of health: Physical health, Mental and Emotional health, Social health, Cognitive health, and Spiritual health. Physical Health is being physically fit, devoid of any illness or disease. Good physical health promotes longer life span. Mental and emotional health includes the psychological and emotional well-being of a person. Our mental health basically impacts the way we feel, think and handle different situations. Keeping mental health in check is as important as keeping physical health intact. Social health is a person's ability to build and maintain satisfying interpersonal relationships with his/ her friends, neighbours, relatives and others in the society. It also refers to a person's ability to act appropriately and adapt to different social situations. Social health is basically establishing a sense of connection with a person's inner self to understand the meaning of life. When a person's brain can perform all the mental processes efficiently he/ she is said to enjoy good cognitive health. Keeping the spiritual health intact helps a person become more positive, patient and sorted in life. The modern definition of health includes all components which need to be kept intact to enjoy a healthy life. Good health forms the basis for accomplishing various other tasks in life. Here is how it helps:

**Work**: It goes without saying that a physically unfit person cannot work properly. Good mental health is equally essential for working efficiently. To get recognition at work one must also enjoy good social and cognitive health.

**Studies**: Poor physical and mental health is a hindrance in studying. It is important to maintain good cognitive health in addition to good physical and mental health to study well.

The college students are often in hurry, under a lot of stress, eating on the go, skipping meals, and frequently visiting fast food restaurants. It is essential to take utmost care of the health. It is only when you are healthy you would be able to take good care of other aspects of your life. There are several techniques to optimize health:

- 1) Follow healthy diet plan that includes all the essential micronutrients
- 2) Lower the consumption of oily, sugary and junk food
- 3) Avoid smoking, drinking and taking drugs
- 4) Take adequate sleep daily
- 5) Exercise regularly
- 6) Play Brain Games such as chess, Sudoku, word puzzles, etc
- 7) Meditate
- 8) Surround Yourself with Positive People
- 9) Go for regular health Check-up
- 10) Don't multitask
- 11) Value and respect yourself
- 12) Be friendly and positive
- 13) Learn the art of anger management
- 14) Be a good listener
- 15) Take out time to sit in self-introspection for some time each day.
- 16) Take a diary and pen down your thoughts if you can't concentrate while thinking
- 17) Pray
- 18) Practice deep breathing
- 19) Practice Yoga
- 20) Drink lots of water
- 21) Lose weight if you are overweight
- 22) Do things that you love
- 23) Do things which gives you HAPPINESS
- 24) Be Natural
- 25) Wash your hands



#### Government appoints Shaktikanta Das as new RBI governor

**primer bureaucrat Shaktikanta Das**, who as Economic Affairs Secretary steered the monetary situation post-demonetisation, was named the **new governor** of the Reserve Bank of India on December 11, 2018.



Das, 61, **replaces Urjit Patel**, who shocked the establishment and markets by announcing his exit from the central bank on Monday.

#### 7 things to know about Shaktikanta Das

1. Das will be the **25th governor** of the RBI.

**2.** He will be the **first bureaucrat to head the central bank in almost five years** and will have a three-year term, as reported by PTI.

**3.** Das, a 1980-batch **Tamil Nadu cadre IAS officer**, who retired as Economic Affairs secretary in May 2017, **oversaw the remonetisation of the economy** after the shock decision to withdraw 86 per cent of the currency in circulation in November 2016.

**4.** After his retirement, he was **named India's G-20 sherpa** and also appointed as a **member of the 15th Finance Commission**.

**5.** Das, a history graduate from St Stephen's College in Delhi, was brought to the Finance Ministry soon after the BJP-led NDA government came to power in mid-2014 and **given charge of the crucial revenue department.** 

6. He also pursued a financial management course from IIM Bangalore.

**7.** He was later **moved to the economic affairs department**, which essentially deals with monetary policy and the RBI.

#### Aadhaar not mandatory for admission in schools

he Unique Identification Authority of India (UIDAI) has made it clear

that schools cannot make Aadhaar a pre-condition to admit the students. UIDAI has categorically made it clear that asking for Aadhaar card for admissions is not as per the provisions of law and doing so will be against the recent order of the Supreme Court. UIDAI has asked



schools to ensure that children are not left out from schools due to unavailability of Aadhaar. Instead, the UIDAI has asked the schools to admit children without Aadhaar and ensure that children are enrolled for Aadhaar once they are in schools by arranging special camps for them. The UIDAI's clarification has come at a right time as admissions to nursery and entrylevel classes have begun in over 1500 private schools of India.

#### President's rule imposed in Jammu and Kashmir

President's rule came into force in Jammu Kashmir from the midnight of December 20, 2018, following the expiry of the six-month-long governor's rule.

President Ram Nath Kovind signed the proclamation paving the way for imposition of central rule in the state, which was placed under the Governor's rule on June 20 after the BJP withdrew



support to the PDP government led by Mehbooba Mufti.

The proclamation was signed after the Union Cabinet headed by Prime Minister Narendra Modi approved the decision on December 17, 2018. After the proclamation, the powers of the legislature of the state shall be exercisable by or under the authority of Parliament.

The Jammu and Kashmir Governor Satya Pal Malik had on November 21, 2019 dissolved the State Assembly with immediate effect after rival alliances staked claim to form the government.

#### **Key Highlights**

The governor released the communiqué of dissolution minutes after People's Democratic Party (PDP) leader and former chief minister Mehbooba Mufti released a letter on Twitter announcing that she would seek to form the government with her traditional rivals, the National Conference (NC) and Congress.

The former Chief Minister and PDP President, Mehbooba Mufti staked claim to form the government in the state by saying that her party, which is the largest party in the assembly with 29 MLAs, had the backing of 15 lawmakers of National Conference and 12 of Congress.

Earlier, both NC and Congress had demanded the dissolution of the assembly to avoid horse-trading and possible poaching of legislators amid the emergence of the Lone-led front.

Mufti's letter was followed by People's Conference Chief Sajad Lone's letter to the governor, in which he staked claim to form the government with the support of the BJP, which has 25 seats and more than 18 other elected members. People's Conference has just two seats in the assembly.

The majority mark required to form the government in the state's 87member assembly is 44.

## Train 18: India's first engineless train gets clearance for commercial run

The Chief Commissioner of Railway Safety (CCRS) on December 23, 2018 gave clearance for the commercial run of the Train-18, India's first engineless train, following a successful trial run at a speed of up to 160 kmph.

The 16-coach train was inspected on December 19 at Safdarjung station of



Delhi and thereafter a speed trial was conducted between Safdarjung and Agra on December 20, 2018.

Prior to Safdarjung-Agra trial, the Railways had conducted a speed trial of the Train-18 at the Moradabad and Kota sections where the train crossed the 180 kmph speed limit during a test run in the Kota-Sawai Madhopur section. On the other hand, the train ran up to 115 km per hour on tracks in Moradabad division of Northern Railway. The trials proved that the train has defined track geometry parameters, curved alignments of specific radius and station yard zones.

Train 18 was rolled out on October 29, 2018 by Railway Board Chairman Ashwani Lohani at the Chennai's Integral Coach Factory (ICF). Touted as the Next Generation Shatabdi Express, this is the first long-distance train without separate locomotive (engine).

#### Fencing of tracks

However, the CCRS also recommended certain precautionary measures like fencing and regular greasing of all the curves on the route. For speeds beyond 130 kmph and up to 160 kmph, the CCRS recommended the fencing of tracks to ensure safety.

Initially, Train-18 will be running at a maximum speed of 130 kmph like the Rajdhani service. Once the fencing work is complete, the speed will go up to 160 kmph. The Rail fencing is essential for 160 kmph speeds to prevent trespassing of people or cattle on the tracks.

#### Features of 'Train 18'

- Train 18 is driven by a self-propulsion module without a separate locomotive.
- It is capable of running at a speed of up to 160 kmph. It will cut travel time by 15 percent compared to the Shatabdi Express.
- The superior 16-coach model of the train has been developed by the Chennai-based Integral Coach Factory (ICF) in time span of just 18 months. Passengers can have a look at the driver's cabin.
- It took an investment of nearly Rs 100 crore to build this prototype and the subsequent production would bring down the cost.
- It is fully air-conditioned train and is equipped with CCTV cameras.
- It has two executive compartments in the middle with 52 seats each and the trailer coaches would have 78 seats each.
- Train 18 has soft lighting, automatic doors, footsteps and GPS-based Passenger Information System.
- The footstep in a coach's doorway slides outward when the train stops at a station enabling passengers to board or deboard safely with comfort.
- The train offers some features to enhance passenger comfort which include inter-connected fully sealed gangways, automatic doors with retractable footsteps, onboard Wi-Fi and infotainment, and modular toilets with bio-vacuum systems.

- It also features rotational seats which can be aligned in the direction of travel (executive class), roller blinds and diffused LED lighting, and disabled-friendly toilets.
- Train 18 is regarded as a successor to the 30-year-old Shatabdi Express. Shatabdi was introduced in 1988 and is presently running on over 20 routes connecting metros with other important cities.

## G20 Summit 2018 concludes: G20 Leaders pledge to fight climate change; India to host G20 Summit in 2022

he G20 Summit 2018 concluded on December 1, 2018 in the city of Buenos Aires, Argentina. Nineteen leaders of the world's biggest economies and representatives of the held European Union а meeting together as part of the G20 summit.



It was the 13th meeting of Group of Twenty (G20) and the first G20 summit to be hosted in South America. President Mauricio Macri of Argentina assumed the presidency of G20 on November 30, 2017 for one year during an official ceremony in Kirchner Cultural Centre in Buenos Aires, Argentina.

The leaders of the Group agreed to fix the world trading system, however, only 19 agreed to support the Paris accord on fighting climate change with the United States holding onto its withdrawal.

#### India's representation at the Summit: Prime Minister Modi represented 9-point agenda; held talks with various leaders

Prime Minister Narendra Modi represented India at the Summit and met US President Donald Trump, Chinese President Xi Jinping, UN Secretary-General Antonio Guterres, Argentina President Mauricio Macri, Chilean President Sebastian Pinera and German Chancellor Angela Merkel, on the sidelines of the summit.

PM Modi presented a 9-point agenda to G20 Member Nations, calling for strong and active cooperation to deal with fugitive economic offenders. The agenda was presented during the second session of the G20 Summit 2018 on International Trade, International Financial and Tax Systems. Prime Minister Narendra Modi also stressed on cooperation among G20 countries on issues related to global economy, trade tensions, crude oil prices and terrorism. He highlighted the flagship programmes like the Pradhan Mantri Jan Dhan Yojna, MUDRA and Start-up India undertaken by his government to modernise the economy and promote inclusive growth.

On the sidelines of the G-20 summit, the Prime Minister met Chinese President Xi Jinping and discussed how to strengthen bilateral ties between the two neighbours. He also met Prince Mohammed bin Salman of Saudi Arabia who offered to supply oil to India.

#### India, Japan & US held trilateral meeting on G20 sidelines

Prime Minister Narendra Modi, US President Donald Trump and Japanese Prime Minister Shinzo Abe held their first trilateral meeting on the sidelines of the G-20 summit to discuss major issues of global and multilateral interests.

PM Modi quoted that, "The '**JAI**' (**Japan, America, India**) meeting is dedicated to democratic values...'JAI' stands for victory (in Hindi)." The JAI meeting was a convergence of vision between the three nations.

All three leaders agreed on free, open, inclusive and rules-based order to maintain peace and prosperity in Indo-Pacific region.

#### India, Russia & China held trilateral meeting on G20 sidelines

Prime Minister Modi, Russian President Vladimir V Putin and Chinese President Xi Jinping held a Trilateral Meeting in Buenos Aires.

The three leaders exchanged views on expanding mutual cooperation in international forums, and to encourage greater interaction among the three countries. They agreed on the importance of reform and strengthening of multilateral institutions which have benefitted the world, including the United Nations, WTO, and well-established and new financial institutions.

#### Informal BRICS Leaders' Meeting

The leaders of Brazil, Russia, India, China and South Africa met on November 30, 2018 for the annual Informal BRICS Leaders' Meeting on the margins of the G20 Summit in Buenos Aires, Argentina.

They exchanged views on international political, security and global economic-financial issues, as well as challenges facing sustainable development. They reaffirmed full support for the rules-based multilateral trading system, as embodied in the World Trade Organisation (WTO), to ensure transparent, non-discriminatory, open and inclusive international trade.

The leaders advocated for a strong Global Financial Safety Net with an adequately resourced, quota-based International Monetary Fund (IMF) at its centre. They extended their support to Brazil which is going to host **11th BRICS Summit in 2019.** 

#### EU aims to be first carbon neutral economy by 2050

The European Union on November 28, 2018 urged government, businesses, citizens and regions to join it in an ambitious plan to cut emissions and make the bloc carbon neutral by 2050.

The EU climate commissioner Miguel Arias Canete said in a press conference in Brussels that the bloc is kicking off a process to determine how Europe's energy and climate policy will evolve between now and 2050.

According to Canete, if Europe retains its current targets it will only reduce net carbon emissions by 60 per cent by mid-century, not enough to meet the bloc's pledges under the 2015 Paris climate accord.

#### **Key Highlights**

The European Union comprises 28 members, which together form one of the world's biggest hence, most and polluting economies. Hence, it is keen to play its part and become the first major world player be "climate to neutral".



- The European Union's strategic long-term vision relies on its member states to take action.
- Under the climate neutral goal, the member states will submit their draft national climate and energy plans to the EU by the end of 2018.
- According to EU's climate commissioner, while more homes will be insulated and transport will be modernized, the key plank of any

successful strategy will be to reduce fossil fuel use in energy production by 80 per cent by 2050.

- This implies increasing investments in clean energy from two per cent of Europe's GDP to 2.8 per cent, representing an additional spend of between 175 and 290 billion euros per year.
- The announcement comes at a time when delegations from more than 200 countries are due to convene in Poland for the upcoming COP24 climate summit, which aims to renew and build on the Paris deal and limit global warming.

#### IFFI 2018: Donbass wins the Golden Peacock Award; Lijo Jose Pellissery wins Best Director Award

The movie 'Donbass' directed by Sergei Loznitsa won the coveted Golden Peacock Award at the 49th International Film Festival of India (IFFI), which concluded in Goa on November 28, 2018.

The Golden Peacock Award carries a cash prize of Rs 4 million (Rs 40 lakhs) to be shared equally between the Producer and the Director, a Trophy and the citation.

Donbass movie tells the story of a hybrid war taking place in a region of



Eastern Ukraine, involving an open armed conflict alongside mass killings and robberies by separatist gangs. A journey through Donbass unfolds as a series of curious adventures. It is about a world lost in post-truth and fake identities.

Donbass is also the official submission of Ukraine for the 'Best Foreign Language Film' category at the 91st Academy Awards in 2019. It was selected as the opening film in the Un

Certain Regard section at the 2018 Cannes Film Festival.

#### Lijo Jose Pellissery won Best Director Award for Ee.Ma.Yau

Lijo Jose Pellissery won the Best Director Award for his 2018 film 'Ee.Ma.Yau'. The film is a satire on death and how it affects human lives. The Best Director gets the Silver Peacock Award and a cash prize of Rs 1.5 million (Rs 15 lakhs).

Set in Chellanam, a coastal village in Kerala, the film shows the plight of a son who tries to arrange a worthy funeral for his father; however, meets unpredictable obstacles and reactions from different quarters.

#### **Chemban Vinod won Best Actor Award**

Chemban Vinod won the Best Actor (Male) Award for his portrayal in Ee.Ma.Yau of 'Eeshi', a son who tries to arrange a worthy funeral for his father but is met with unpredictable obstacles.

Best Actor (Male) is honoured with the Silver Peacock Trophy and a cash prize of Rs 1 million (Rs 10 lakhs).

#### Anastasiia Pustovit won Best Actor (Female) Award

Anastasiia Pustovit won the Best Actor (Female) Award for her portrayal as a 'Larysa', a teenage girl in the Ukrainian film 'When the Trees Fall'.

Best Actor (Female) is honoured with the Silver Peacock Trophy and a cash prize of Rs 1 million (Rs 10 lakhs).

#### Milko Lazarov's Aga won Special Jury Award

Milko Lazarov won the Special Jury Award for his film 'Aga'; the film focuses on the story of Sedna and Nanook, an elderly couple from Yakutia, and the particular challenges they face in the midst of a frigid landscape.

The Special Jury Award carries a cash prize of Rs 1.5 million (Rs 15 lakhs), a Silver Peacock Award and a citation.

#### <u>Alberto Monteras II won Best Debut Feature Film of a Director</u>

Alberto Monteras II received the Centenary award for 'Best Debut Feature Film of a Director' for his Filipino Movie 'Respeto'.

#### Salim Khan won IFFI 2018 Special Award

Salim Khan, the celebrated actor, story-screenplay-dialogue writer of Hindi films was honoured with the IFFI 2018 Special Award for his Lifetime Contribution to Cinema.

The prestigious award consisting of a cash prize of Rs 1 million (Rs 10 lakhs), Certificate, Shawl and a Scroll was conferred upon Khan for his outstanding contribution to cinema.

#### ICFT –UNESCO Gandhi Medal

'Walking with the Wind', directed by Praveen Morchhale, won The ICFT – UNESCO Gandhi Medal instituted by the International Council for Film,

Television and Audiovisual Communication, Paris and UNESCO.

'Walking with the Wind' tells the story of a 10 year old boy in Himalayan Terrain, who mistakenly breaks his friend's school chair. The criteria for the Gandhi Medal reflect UNESCO's fundamental mandate of building peace in the mind of men and women, particularly human rights.

'Los Silencios', the Portuguese, Spanish movie directed by Beatriz Seigner got the special mention under ICFT-UNESCO Gandhi medal category.

#### Pakistan Elections Results 2018: Imran khan's party PTI emerges as single largest party

ccording to the Pakistan Elections results 2018 announced by the Election Commission of Pakistan on July 29, 2018. Imran Khan's Pakistan Tehreek-i-Insaf (PTI) has emerged as the single largest party in the National Assembly after the Pakistan Elections 2018. The PTI has bagged a total of 116 seats.



While, former Prime Minister Nawaz Sharif's Pakistan Muslim League-Nawaz (PML-N) bagged 64 seats and former President Asif Ali Zardari's Pakistan People's Party (PPP) got 43 seats.

Though PTI has emerged as the single largest party in the National Assembly, the party is still short of numbers to form the government on its own. Now, all eyes are on the PTI to reach out to smaller parties and independents to form the next government.

## Vodafone-Idea merger completed; creating India's largest telecom service provider

The merger of Vodafone India and Idea Cellular completed on August 31, 2018, creating India's biggest telecom service provider with over 408 million subscribers.

With this, Aditya Birla Group led Idea Cellular was renamed as the Vodafone Idea Limited. Both Vodafone and Idea brands will continue to operate.

#### Vodafone Idea Limited: India's Leading Telecom Service Provider

- The new company holds pan India Revenue Market Share (AGR) of 32.2 percent and number one position in 9 circles.
- Subscriber base of over 408 million as on June 2018
- Encompasses over 340,000 broadband sites, covering 840 million Indians



- Over 200000 enterprise customers
- Covers largest voice network with over 200000 unique GSM sites to cover over 1.2 billion Indians (92 percent population coverage)
- Large spectrum portfolio of 1850 MHz
- Contains adequate number of broadband carriers to provide superior consumer experience across 2G, 3G and 4G platforms
- Widest distribution reach with over 1.7 million retailers and approximately 15000 branded stores to service customers



#### Bharatmala Pariyojana

B haratmala Pariyojana is a centrally-sponsored and funded road and highways project of the Government of India. The total investment for 83,677 km committed new highways is estimated at ₹5.35 lakhs crore, making it the single largest outlay for a government road construction scheme (as of December 2017).



The project will build highways from Gujarat, Rajasthan, Punjab, Haryana and then cover the entire string of Himalayan Jammu Kashmir, Himachal states, and Pradesh, Uttarakhand and then portions of borders of Uttar to West Pradesh and Bihar alongside Terai, and move Bengal, Sikkim, Assam, Arunachal Pradesh, and right up to the Indo-Myanmar border in Manipur and Mizoram.

Special emphasis will be given on providing connectivity to far-flung border and rural areas including the tribal and backward areas.

Bharatmala will connect 550 district headquarters (from current 300) to minimum 4-lane highway by raising the number of corridors to 50 (from current 6) and move 80% freight traffic (40% currently) to national highways by connecting 24 logistics parks, 66 inter-corridors of total 8,000 km, 116 feeder routes of total 7,500 km and 7 north east multimodal waterway ports.

Bharatmala will significantly boost highway infrastructure:

- Raise 6 NC corridors to 50 corridors (6 NC and 44 EC)
- Raise 40% freight to 80% freight on National Highways
- Raise 300 districts to 550 districts connected by minimum 4-lane highways.

#### Finance

- Total budget ₹692,324 crore for 5 years Bharatmala project from 2017-2022.
- ₹157,324 crore existing NH projects subsumed under Bharatmala, such as incomplete National Highways, SARDP-NE, Externally Aided Projects (EAP, e.g. World Bank and ADB), and Left Wing Extremism roads (LWE).
- ₹535,000 crore phase-I to be completed during 2017-dec 2019
- ₹209,000 crore through market borrowings.
- ₹106,000 crore through private investments.
- ₹219,000 crore through the Central Road Fund (CRF) and tolls.
- ₹97,000 crore from CRF.
- ₹34,000 crore from new toll monetisation of completed highways.
- ₹46,048 crore from current toll fee from Toll-Permanent Bridge Fee Fund (PBFF)

#### Fy 2017-18:

- 10,000 km highways built at the rate of 27 km/day,
- ₹65,000 crore through allocations in the national budget.

#### Fy 2018-19:

- 24,000 km will be awarded.
- 12,000 km will be completed.
- ₹163,000 crore total spend:
- ₹78,000 crore through allocation in the national budget,
- ₹60,000 crore through bonds,
- ₹25,000 crore through toll monetisation of 30 completed highways.

#### Phase 1: 34,800 km by December 2019

The total length of 34,800 km highways will be constructed under phase-I by December 2019, including 24,800 km of new highways and another 10,000 km currently under-construction remaining incomplete under NHDP, compared to 19 years it took to upgrade almost same length of National Highways under NHDP.

Road Type	Total Length	Phase-I Length	Notes	
Economic Corridors	26,200 km	9,000 km	44 EC corridors exclude 6 NC.	
Inter-corridor & feeder Routes	15,500 km	6,000 km	66 8,000 km inter-corridors (IC) & 116 7,500 km feeder routes (FR).	
National Corridors Efficiency Program		5,000 km	6-8 laning, bypasses and ring roads of 6 NC.	
Border & International connectivity roads	5,300 km	2,000 km	3,300 km of border roads and 2,000 km to connect 6 national corridors to international trade routes, such as BIMSTEC, MIT and BIN (Bangladesh-India-nepal).	
Coastal & Port connectivity roads		2,000 km	Synergy with Sagarmala	
Expressways	1,600 km	800 km	NC stretches converted to expressway.	

Total under Bharatmala Pariyojana		24,800 km	
NH remaining under NHDP	10,000 km	10,000 km	
Total to be built	83,677 km	34,800 km	

#### Sagarmala Project

**Solution** agarmala Programme is an initiative of Government of India to enhance the performance of logistics sector in India. The programme envisages unlocking the potential of waterways and coastline, to minimize infrastructural investments required to meet these targets. It entails  $\gtrless 8.5$  trillion (US\$120 billion or  $\gtrless100$  billion) investment for setting up of new mega ports, modernization of India's existing ports, development of 14 **Coastal Employment Zones** (CEZs) and **Coastal Employment Units**, enhancement of port connectivity via road, rail, multi-modal logistics parks, pipelines & waterways and promote coastal community development, resulting in boosting merchandise exports by US\$110 billion, and generation of around 10,000,000 direct and indirect jobs.

The Sagarmala Programme is the flagship programme of the Ministry of Shipping to promote port-led development in the country through harnessing India's 7,500 km long coastline, 14,500 km of potentially navigable waterways and strategic location on key international maritime trade routes. Sagarmala aims to modernize India's Ports so that port-led development can be augmented and coastlines can be developed to contribute in India's growth. It also aims for "transforming the existing Ports into modern world class Ports and integrate the development of the Ports, the Industrial clusters and hinterland and efficient evacuation systems through road, rail, inland and coastal waterways resulting in Ports becoming the drivers of economic activity in coastal areas."

On 25th March, 2015 Cabinet gave approval for the Sagarmala

Programme. The National Sagarmala Apex Committee (NSAC), composed of the Minister of Shipping, with Cabinet Ministers from stakeholder Ministries and Chief Ministers / Ministers in-charge of ports of India's maritime states as members, provides policy direction and guidance for the initiative's implementation. The NSAC approved the overall *National Perspective Plan (NPP)* and regularly reviews the progress of implementation of these plans.



To assist in implementation of Sagarmala projects, the Sagarmala Development Company Limited (SDCL) was incorporated on 31 August 2016, after receiving Cabinet approval on 20 July 2016, for providing funding support to project SPVs and projects in-line with Sagarmala objectives. Additionally, SDCL is also in process of preparation of Detailed Project Report (DPRs) and feasibility studies for specific projects that could provide avenues for future equity investment by the company. The Sagarmala Development Company was incorporated after approval from the Indian Cabinet on 20 July 2016 with an initial authorized share capital of Rs 1000 Crore and subscribed share capital of Rs 90 Crore, to give a push to port-led development. The present subscribed share capital of SDCL is Rs. 215 Crore.

The Indian Port Rail Corporation Limited (IPRCL) was incorporated on 10th July 2015 to undertake the port-rail connectivity projects under Sagarmala Programme.

The Sagarmala National Perspective Plan was released by the Prime Minister on 14-April-2016 at the maiden Maritime India Summit 2016, with details on Project Plan and Implementation.

#### Components

Under Sagarmala Programme, 577 projects, at an estimated investment of approximately ₹8.570500 lakh crore (US\$120 billion), have been identified across port modernization & new port development, port connectivity enhancement, port-linked coastal economic zone industrialization and coastal community development for phase wise implementation over the period 2015 to 2035. As per the approved implementation plan of Sagarmala scheme, these projects are to be taken up by the relevant Central Ministries/Agencies and State Governments preferably through private/PPP mode. The details are as below.

As of 31-Mar-2018, a total of 492 projects (Rs₹4.255630 lakh crore (US\$59 billion)) were under various stages of implementation, development and completion

Sr. No.	Project Theme	No. of Projects	Project Cost (Rs 10)
1.	Port Modernisation	245	₹1,416,410 million (US\$20 billion or €17 billion)
2.	Connectivity Enhancement	210	₹2,444,640 million (US\$34 billion or €30 billion)
3.	Port-Linked Industrialisation	57	₹4,639,700 million (US\$65 billion or €57 billion)
4.	Coastal Community Development	65	₹69,760 million (US\$970 million or €850 million)
	Total	577	₹8,570,500 million (US\$120 billion or €100 billion)

#### Mega Ports

SR.No.	Location	State	Status
1.	Sagar Island	West Bengal	DPR under preparation
2.	Paradip Outer Harbour	Odisha	DPR under preparation.
3.	Sirkazhi	Tamil Nadu	Techno Economic Feasibility Report (TEFR) prepared.
4.	Enayam	Tamil Nadu	In principle approval obtained for setting up Major Port at Enayam. DPR under preparation.
5.	Belikeri	Karnataka	Techno Economic Feasibility Report (TEFR) prepared.
б.	Vadhavan	Maharashtra	DPR under preparation.

Six mega ports are planned in Sagarmala project.

#### **Coastal Community Development under Sagarmala**

#### Skill Development

On the skill development front, the skill gap study of 21 coastal districts has been completed and domain ministries & concerned state governments have been asked to implement the district action plans. To address skill gap in ports and maritime sector in these 21 coastal districts, Ministry of Shipping will also be funding skill development under DDU-GKY to train 10,000 persons annually for next 3 years. Skill gaps survey for Kanyakumari and Palghar have been taken up under Sagarmala Programme. Under coastal district skilling programs in convergence with DDU-GKY, 1,917 candidates have been trained and 1,123 candidates have been placed.

#### Fisheries

Sagarmala Programme in coordination with related Central Ministries and State Governments would fund capacity building, infrastructure, and social development projects related to value addition in fisheries, aquaculture and cold chain development. As part of the coastal community development component of the Sagarmala Programme, Ministry is part-funding fishing harbour projects in convergence with Department of Animal Husbandry and Dairying (DADF).

#### Coastal Tourism

For promoting tourism in maritime states under Sagarmala, projects have been identified in convergence with Ministry of Tourism and tourism development departments of maritime state governments. Key coastal tourism projects include:

- Development of Coastal Circuits under Swadesh Darshan Scheme of Ministry of Tourism
- Development of infrastructure for promoting Cruise tourism
- Development of lighthouses
- National Maritime Heritage Museum Complex at Lothal
- Underwater viewing gallery and restaurant at Beyt Dwarka



#### **Smart City Updates**

overnment of India announces the list of 20 cities selected to be taken up for development as smart cities in Round 1 of the Smart City Programme. 97 cities competed in the Smart City Challenge.

The ranking of 97 cities was arrived at through a rigorous process of evaluation by a panel of experts, which included World Bank, ADB, London School of Economics, National Institute of Urban Affairs etc. The selection of 20 cities has been done on merit based on the top 20 individual scores awarded in the competition. The overall cap of 20 cities for the first year (2015-2016) was envisaged as per Guideline of the Mission.

Round 2 of the challenge (2016-17) has opened on 1<sup>st</sup> April, 2016 and the remaining 54 cities have completed their revised proposals and submitted by 30<sup>th</sup> June, 2016. The 23 cities which were required to upgrade their proposals and which did not meet the benchmark set by the winning cities have also joined in the challenge of main round 2.

#### Scoring Division:

#### **Total 100 Points**

City-Level:	30
Area-Based Development:	55
Pan-City Solution:	15

#### **City Level Criteria: 30%**

Sr.No.	Criteria	%
1	Vision and goals	5
2	Strategic plan	10
3	Citizen engagement	10
4	Baseline, KPIs, Self-assessment and potential for improvement	5

#### Area Based Development (ABD): 55%

Sr.No.	Criteria	%
1	'Smartness' of proposal	7
2	Citizen engagement	5
3	Results orientation	15
4	Process followed	3
5	Implementation framework, including feasibility and cost- effectiveness	25

#### Pan City Solution: 15%

Sr.No.	Criteria	%
1	'Smartness' of solution	7
2	Citizen engagement	5
3	Results orientation	15
4	Process followed	3
5	Implementation framework, including feasibility and cost-	25
	effectiveness	

#### **Civil Engineering Personality**

#### **Squire Whipple**

quire Whipple was an American civil engineer, famously known as the 'Father of Iron Bridge building in America'. This biography of Squire Whipple provides detailed information about his childhood, life, achievements, works & timeline.

Quick Facts			
Famous as	Civil Engineer		
Nationality	American		
Born on	16 September 1804 AD		
Zodiac Sign	Virgo		
Born in	Hardwick, Massachusetts, USA		
Died on	15 March 1888 AD		
Father	James Whipple		
Mother	Electa Johnson		
Spouse	W. Anna Case		

Squire Whipple was an American civil engineer, famously known as the 'Father of Iron Bridge building in America'. He was an original craftsman who started observing the art of construction from his childhood. He was the son of a farmer and developed a keen interest in construction and the materials used for it. After graduation, acquired training he in the construction of canals and railroads



and soon made his way to become one of the finest engineers of all time. He encouraged the use of iron as the core material for building bridges instead of wood to increase the stability and strength of the bridge. He popularized the use of science in engineering and modernized the concept of bridge construction through his determined efforts. His patents were the proof of his ability to design and transform his ideas into real world entities. Even today, his ingenuity is enlightening the world as one of the oldest iron bridges built on his patented design is still intact in America. He revolutionized the field of civil engineering through his new breakthroughs in the domain of bridge construction. He marked the beginning of a new era for civil engineers and thus became the 'Father of Iron Bridge building in America'.

#### Childhood & Early Life:

• He was born on September 16, 1804 in Hardwick, Massachusetts to James Whipple, a farmer and his wife Electa Johnson.

• His father designed, built and ran a cotton-spinning mill in nearby Greenwich, Massachusetts and therefore, at a young age, he was exposed to construction and materials used in it.

• In 1817, his family moved to Orsego County near Cooperstown, New York where he received the best possible common school education available.

• After schooling, he attended Hartwick Academy and Fairfield Academy in New York. He completed his graduation in just one year from the Union College in Schenectady, New York.

#### Career:

• In 1830, he started off as a rod-man and leveler on the Baltimore and Ohio railroad. He also served as an apprentice working on some other canals and railroads. Along with his apprenticeship, he designed and built mathematical instruments such as transits, engineer's levels and drafting equipments.

• In 1840, he designed and built a weigh lock for weighing canal boats on the Erie Canal in Utica. In the same year, he started his career as a bridge builder by patenting his design of an iron-bridge truss.

• He got an opportunity to display his knowledge of construction and engineering when the wooden bridge across the canal at First Street in Utica fell. He was hired to build a bridge by the canal commission.

• He suggested his idea of a steady bridge, an iron bridge, to the canal commissioners but they seemed reluctant to do so as they were unsure of its stability and strength. He demonstrated the construction of a similar iron bridge at his own expense and convinced them for the task.

• During the next ten years, he demonstrated his civil engineering skills and built several bridges over the Erie Canal and New York and Erie railroad near Newburgh and Binghamton.

• In 1852-53, he built a wrought and cast iron bridge over the Albany and Northern railroad. He also built an iron railroad bridge of 146 foot span near Watervliet, New York. • In 1860, he took professional retirement but continued to contribute significantly to civil engineering by designing lift and swing bridges.

• In 1872, he designed and patented the first ever vertical lift bridge in America. In 1874, he built a bridge of this design over the Erie Canal in Utica.

#### Major Works:

• He built a weigh lock scale with a capacity of 300 tons in 1841 and it was the largest weighing device in the country at the time for weighing canal boats.

• He built the first successful long span trapezoidal railroad bridges on New York Railroads in West Troy and Utica, New York.

• One of his notable literary accomplishments was 'A Work on Bridge Building' consisting of Two Essays, 'The One Elementary and General' and 'Giving Original Plans and Practical Details for Iron and Wooden Bridges', which he wrote and published in 1847. It properly analyzed the stresses on bridge trusses, and developed mathematical procedures to account for them that are still useful in construction of bridges.

• In 1867-69, 'Whipple Cast and Wrought Iron Bowstring Truss Bridge', commonly known as the Normanskill Farm Bridge, was built by Simon de Graff, a Syracuse builder, who copied its design from Whipple's original bowstring truss design. In 1971 it was listed on the National Register of Historic Places and is currently one of the oldest surviving iron bridges in the country.

#### Awards & Achievements:

• After the resurrection of American Society of Civil Engineers, he was the first man to be named an Honorary Member of the Society in 1868.

#### Personal Life & Legacy:

• He married W. Anna Case but had no children.

• He died on March 15, 1888 at an old age of 84 in Albany, New York and was buried in Albany Rural Cemetery, New York.

• He is regarded as the 'Father of Iron Bridge building in America' for his innovative ideas and contribution to civil engineering. He is considered the first bridge builder to apply scientific principles to the field and revolutionize the concepts of modern bridge construction.

#### Landmark Event: Statue of Unity

The 'Statue of Unity', the dream project of the Honorable Prime Minister of India, is dedicated to Sardar Vallabhbhai Patel, the 'Iron Man of India'. A statesman par excellence, Sardar Patel is widely considered as the Architect of modern India and one of the founding fathers of the Republic of India. Often also referred to as the 'Bismarck of India', he is remembered as the 'Patron Saint' of India's civil servants for establishing modern all-India services. Sardar Patel is and will always remain an inspiration to every Indian and to the global community at large. The statue will stand tall as an inspiration to future generations, a reminder of Sardar Patel's sterling contribution and a national symbol of harmony and integrity.

The project was first announced in 2010 and the construction of statue started in October 2014 by Larsen & Toubro, who received the contract for Rs. 2,989 crore (US\$420 million). It was designed by Indian sculptor Ram V. Sutar.

Narendra Modi first announced the project to commemorate Sardar Vallabhbhai Patel on 7 October 2010 at a press conference to mark the beginning of his 10th year as the Chief Minister of Gujarat. At the time, the project was dubbed, "Gujarat's tribute to the nation". A special purpose vehicle named the Sardar Vallabhbhai Patel Rashtriya Ekta Trust (SVPRET) was constituted by the Government of Gujarat for executing the project. An outreach drive named the Statue of Unity Movement was started to support the construction of the statue. It helped collect the iron needed for the statue by asking farmers to donate their used farming instruments. By 2016, total 135 metric tonnes of scrap iron had been collected and about 109 tonnes of it was used to make the foundation of the statue after processing. A marathon entitled *Run For Unity* was held on 15 December 2013 in Surat in support of the project.

#### A towering piece of Engineering – "The Statue of Unity"

- The statue is conceived as a naturalistic depiction of Sardar Patel in characteristic garb and in a walking pose.
- It has star-shaped, geometric base that have cover the entire Sadhu Island.
- The statue have an unique, slender width to height ratio much more exacting technical norms that call for special engineering considerations

- The structure have two vertical cores each housing a high-speed passenger elevator
- The vertical cores support the space frames to which over 12,000 bronze panels has been cladded.
- A viewing gallery at 153 meter, at the chest level, that can accommodate up to 200 visitors at one go opens onto the expansive view of the dam and surroundings.
- The total height of the structure from its base is 240 m (790 ft), with a base of 58 m (190 ft) and statue of 182 m (597 ft). The height of 182 was specifically chosen to match the number of seats in the Gujarat Legislative Assembly.

Construction of the monument was completed in mid-October 2018; and the inaugural ceremony was held on 31 October 2018, the 143rd anniversary of Sardar Patel's birth, presided over by Prime Minister Narendra Modi. The statue has been described as a tribute to Indian engineering skills.

#### A statue and more!

Apart from the statue itself, other outstanding features include:

- A 6,850 sq.m exhibition centre at its base showcasing the life and achievements of Sardar Patel
- A memorial garden
- A 250-metre long designer bridge connecting sadhu island to the mainland
- A memorial and a visitors' centre
- 4-lane 5-km internal roadway

#### Figures that tell the big story

Memorial and visitor center and ticket entry pavilion 1,937 sq.m

Statue base, exhibition hall and other enclosed spaces 9,355 sq.m

Shresta Bharat Bhavan (guest house and conference centre) 8,439 sq.m

Ticket / entry pavilion at parking / transport site 210 sq.m



#### The Bogibeel rail-road bridge

#### Key objective of the project

The key objective of the project is to provide rail and road connectivity between the lesser developed districts of Assam and Arunachal Pradesh in the North Bank of the river Brahmaputra to the South Bank. The rail line will be linked to Chowalkhowa, which is 5.83 km from Dibrugarh, on the South bank and between Sisi Borgaon and Sirpani on the North bank.



#### Direct access to districts of Upper Assam

The bridge will also provide direct access to the districts of Upper Assam from the rest of the country through the North bank without having to take the tortuous route through Guwahati in the South bank.

#### Approximate cost

The approximate cost of the project is in the range of Rs 5,000 crore. The estimated life span of this bridge will be 100 years and it will be adequately instrumented to monitor its fatigue resistance and other parameters.

#### All welded steel bridge

In a first for the Indian Railways, the bridge will be an all welded steel one. In addition, the method of placement of the girders across the river will be unique: 10 girders had been launched simultaneously across the river using the method of incremental launching.

#### Fourth rail-road bridge on Brahmaputra

The rail-road bridge is the fourth being built on the river, the others being Pandu Saraighat, Kolia-Bjumuraguri and Naranarayan Setu at Jogighopa all of them in Assam.

The Bogibeel rail / road bridge is being built across the River Brahmaputra in the Dibrugarh district, in the state of Assam in north-east India. The 4.94km bridge is one of the longest river bridges in the country.

The rail-road bridge is being undertaken by the Northeast Frontier Railway, which is a part of Indian Railways. The work on the project began in 2002 and was expected to be completed in seven years. But the bridge project experienced significant time and cost overruns before its construction gained momentum in July 2014.

The originally estimated cost of Rs16.7bn (approximately \$312m) increased to Rs49.96bn (\$810m) by March 2014. Approximately Rs30.41bn had been spent on the project until 2014.

#### **Bogibeel bridge location**

The bridge is located 17km downstream of the town of Dibrugarh. It will connect Dibrugarh in the south to Lakhimpur in the north. The River Brahmaputra runs to the north of Dibrugarh and spans 10km.

The rail-road bridge is the fourth being built on the river, the others being Pandu Saraighat, Kolia-Bjumuraguri and Naranarayan Setu at Jogighopa, all of them in Assam. The Bogibeel Bridge is the longest structure being built on the River Brahmaputra and will be the country's fourth largest bridge.

The Bogibeel rail-road bridge is a double-deck bridge with a two-line railway track on the lower deck and a three-lane road on the upper. The road level will be 10.5m above the railway line.

The rail project comprises the laying of 74km of railway line, including the rail links on the south and north banks of the river. The rail line will be linked to Chowalkhowa, which is 5.83km from Dibrugarh, on the south bank and between Sisi Borgaon and Sirpani on the north bank.

The work on the railway line is being undertaken by Northeast Frontier Railway.

The road project includes construction of 29.45km of road to be undertaken by the Assam Public Works Department (PWD). Approximately Rs30.87bn (\$576m) worth of works are being executed by the Northeast Frontier Railway while Rs2.91bn (\$54m) worth of works are being undertaken by Assam PWD.

#### River Brahmaputra bridge design and construction

The Bogibeel Bridge is a welded-steel-truss-and-reinforced-concrete structure. It spans 125m and has strong box-type built-in sections. The bridge is supported on well foundations and 42 piers. The project obtained approval of the federal Cabinet Committee on Economic Affairs (CCEA) in September 1997 and construction began in April 2002.

Major earthworks and strengthening of the north and south dykes were completed by June 2011. As of mid-2017, the well foundations and girders were completed. The project requires about 505ha of land, which was acquired across 19 villages.

#### Bogibeel rail link infrastructure

A new station, New Dibrugarh Rail Station, was constructed at Boiragimoth Kachari village in Dibrugarh. The station is the biggest in the region.

The rail link also has a station at Chowalkhowa. It is being proposed to connect the Bogibeel rail line to Moranhat railway station, on the south bank.

## Contractors involved in the Bogibeel rail-road bridge in Indian state of Assam.

The state-owned consultancy and project management enterprise Rites (Rail India Technical and Engineering Services) undertook the pre-construction studies, geo-technical investigations and detailed design of the rail-road bridge. Top-Notch Engineers was involved in the design and drawings of the bridge.

The well foundations and substructure of the bridge are being constructed by Gammon India under an Rs3.44bn (\$64.62m) contract.

Assam-based Bhartia Infra Projects supplied aggregates for the bridge under an Rs540m (\$10m) sub-contract from Gammon India. Essar steel was contracted to supply 20,000t of steel for the bridge project.

Bhartia Infra constructed the guide bunds and approach embankments on the south bank of the bridge. A joint venture of Hindustan Construction Company (HCC), Germany-based DSD Brouckenbau and VNR Infrastructures builds the superstructure of the bridge under an Rs9.87bn (\$185m) contract awarded in November 2011.



#### Saritaben Laxmanbhai Gayakwad wins Gold medal in Asian games 2018

**Saritaben Laxmanbhai Gayakwad** (born 1 June 1994) is an Indian sprinter who specializes in the 400 metres and 400 metres hurdles. She was part of the Indian women's  $4 \times 400$  metres relay team that won the gold medal at the 2018 Asian Games.

#### Joshna Chinappa wins National Squash Women's Singles Title

Joshna Chinappa won the National Squash Women's Singles title after she defeated Urwashi Joshi in the final match of the competition by 9-11, 11-1, 11-6, 11-5. It was her 16th National title and with this win, she has equalled the record of Bhuvaneshwari Kumari of winning 16 titles.

Joshna Chinappa is the first Indian squash player to win the British Squash Championship in 2003. She won this title in the under 19 category.



She is also the youngest Indian women's national Squash champion.

Joshna Chinappa and Dipika Pallikal Karthik won the squash women's doubles gold medal in 2014 at the Commonwealth Games. It was India's first ever medal in squash at the Commonwealth Games.

#### PV Sindhu wins maiden BWF World Tour Title

PV Sindhu, the 2016 Rio Olympic silver medallist, created history on 16th December 2018 as she became the first Indian to win the BWF World Tour Final. She defeated Japan's Nozomi Okuhara, the 2017 world champion, by 21-19 21-17 in the final match that lasted for an hour and two minutes. Earlier, Sindhu defeated Ratchanok by 21-16, 25-23 in the semi-finals to enter the finals of the season-ending BWF World Tour tournament.



#### Belgium wins Hockey World Cup 2018 Title



Belgium Hockey team won their first ever Word cup title on 16th December 2018 after thev defeated The Netherlands in death. sudden Belgium, which also won a silver medal in Rio Olympics 2016, made history

by beating the opponents by 3-2 in the penalty shoot-out after finals ended without any goal.

#### About Hockey World Cup 2018:

The Hockey World Cup 2018 was held at Kalinga Stadium in Bhubaneshwar, Odisha from 28 November to 16 December 2018. It was the 14th edition of the cup. Belgium finished first, while the Netherlands and Australia finished second and third respectively. Australia defeated England by 8-1 to secure third place. Belgium came fifth in the last edition of the Hockey World Cup which was played at The Hague in the Netherlands. India came at sixth place in the Hockey World Cup 2018

#### Bajrang Punia wins gold medal in Asian games 2018



On August 19<sup>th</sup>, **Bajrang Punia** won the Men's freestyle 65 kg /Gold medal. He defeated Japanese Wrestler Takatani Daichi 11-8; the score was locked at 6-6 after the first round.

#### Vinesh Phogat won the gold medal at the 2018 Asian Games



Vinesh Phogat won the gold medal at the 2018 Asian Games and became first Indian woman wrestler to win gold in the Asian Games Phogat beat Japan's Yuki Irie in Women's 50 kg Freestyle Wrestling gold medal match.

#### India at the 2018 Asian Games

#### Medalists

Medal	Name	Sport	Event	Date
1 Gold	Bajrang Punia	Wrestling	Men's freestyle 65 kg	19 <sup>th</sup> August
1 Gold	Vinesh Phogat	Wrestling	Women's freestyle 50 kg	20 <sup>th</sup> August
1 Gold	Saurabh Chaudhary	Shooting	Men's 10 metre air pistol	21 <sup>st</sup> August
1 Gold	Rahi Sarnobat	Shooting	Women's 25 metre pistol	22 <sup>nd</sup> August
1 Gold	Sawarn Singh Dattu Baban Bhokanal Om Prakash Sukhmeet Singh	Rowing	Men's quadruple sculls	24 <sup>th</sup> August
1 Gold	Rohan Bopanna Divij Sharan	Lawn tennis	Men's doubles	24 <sup>th</sup> August
1 Gold	Tajinderpal Singh Toor	Athletics	Men's shot put	25 <sup>th</sup> August
1 Gold	Neeraj Chopra	Athletics	Men's javelin throw	27 <sup>th</sup> August
1 Gold	Manjit Singh	Athletics	Men's 800 metres	28 <sup>th</sup> August
1 Gold	Arpinder Singh	Athletics	Men's triple jump	29 <sup>th</sup> August
1 Gold	Swapna Barman	Athletics	Women's heptathlon	29 <sup>th</sup> August
1 Gold	Jinson Johnson	Athletics	Men's 1500 metres	30 <sup>th</sup> August
1 Gold	Saritaben Gaikwad, M. R. Poovamma Hima Das	Athletics	Women's 4 x 400 m relay	30 <sup>th</sup> August

Medal	Name	Sport	Event	Date
	Vismaya			
1 Gold	Amit Panghal	Boxing	Light flyweight (49 kg)	1 <sup>st</sup> September
1 Gold	Pranab Bardhan Shibhnath Sarkar	Bridge	Men's pair	1 <sup>st</sup> September



#### Job & Career

#### **Interview Preparation Tips for Freshers**

he most anticipated time of the year for students is back again! Students across colleges have to evaluate opportunities to work with some of the most renowned and reputed companies in the country as bagging a campus placement certainly remains the foremost priority of every graduating student. A first job can pave a brand new way for your future and the foremost step towards a long-term career depends on campus placement.

Students should employ smart thinking and follow some ground rules to be better placed for tackling the interview process. Here is a list of things to be kept in mind before a job interview -

#### 1. Research about the company you are applying for

Research is crucial; organizations are more likely to hire candidates who have invested time in learning about the company. Read up on the company's history, culture, values, future goals, mission and vision, financial standing, etc. This will go a long way, especially in a personal interview because recruiters prefer candidates who can fit their organization's values and are abreast of the current happenings. The research also portrays your preparedness and intent to join the organization. Additionally, you should check if the goals and philosophies of the company are aligned with your own, to ensure job satisfaction.

## 2. Check various platforms to know about the organisation's selection process.

It is easier to handle the interview if you are aware of the company's selection processes. This can be done through online platforms and company blogs. In today's era of social networks, you can use these platforms to even connect with existing employees or alumni to get firsthand information about the processes and prepare accordingly.

#### 3. Improve your knowledge

One of the key agendas of interviews is to assess the candidate pool basis their understanding of concepts. This is not only limited to knowing them theoretically, but also knowing their practical applications in real world situations. Students should be well-aware of the topics they have studied during the course and also explore some applied cases on news portals or websites dedicated to their specialized sector

#### 4. Highlight your skillsets

It is important to bring to light your competencies during the selection process. You stand a better chance of being preferred for a job if your skillsets match the job portfolio well. Hence, understand what the requirement is, analyze your potential to see if it fulfills the requirement and bring it up in the discussion with the prospective employer. During the interview, you can provide examples of ways in which your skills will be handy and help in problem-solving.

#### 5. Be yourself

The key to crack an interview is to be genuine and not get apprehensive and make errors. You may end up not being yourself when you are tensed and all those hours invested in preparing yourself for the D-day may go to waste. Take a deep breath whenever you feel you are nervous or anxious and give your best shot. Remember, recruiters appreciate honesty and if they like your skill set they will be able to place you in the appropriate team.

#### 6. Showcase ability of 'learning on the fly' and being street-smart

Recruiters are aware that a fresher will not know the solutions to all the problems that arise in the corporate world. They are looking out for candidates who showcase an ability to find creative solution to these problems and learn in the process. Recruiters value this capability as it showcases not only strong fundamentals, but also the ability to find solutions to problems.

#### 7. Brush your communication skills

Communicating well will earn you those brownie points from the interviewer. Reading a book is a very good way of improving your language. Engage in group discussions on a topical issue with your friends to rene your spoken English. Speak slowly and think before you make a point. You may make mistakes at first but the key is to accept those and challenge yourself to be an eloquent communicator. By ticking off every point on this checklist, students should be well-equipped and feel confident for the interview.

#### **Gujarat Public Service Commission**

#### Post Name: Executive Engineer and Deputy Executive Engineer

#### **Basic Qualification:**

The Candidate shall possess a Bachelor of Engineering (Civil) or Bachelor of Technology (Civil) obtained from any of the Universities established or incorporated by or under the Central or State Act in India or any other educational institution recognized as such or declared to be deemed as a University under Section 3 of the University Grants Commission Act, 1956 or possess an equivalent qualification recognized by the Government;

Provided that the candidate who has appeared at a degree examination, the passing of which would render him educationally qualified for the Examination mentioned in sub-rule 1, but the result is not declared, shall also be eligible for admission to the Preliminary Examination.

All candidates who are declared qualified by the commission for appearing in the Main Examination shall be required to produce proof of passing the degree examination along with their application for the Main Examination. The candidate who fails to produce proof of passing the degree examination shall not be eligible for admission to Main Examination.

(2) Possess the basic knowledge of Computer Application as prescribed in the Gujarat Civil Services Classification and Recruitment (General) Rules, 1967.

NAME OF THE POST	DISCIPLINE	NO. OF POSTS
Executive Engineer (Civil),		
Class-I (Road and Building	Civil Engineering	11
Dept.)		
Deputy Executive Engineer		
(Civil), Class-I (Road and	Electrical Engineering	38
Building Dept.)		

(3) Possess adequate knowledge of Gujarati or Hindi or both.

## Post Name: Executive Engineer and Deputy Executive Engineer (Road and Building Department)

#### Basic Qualification:

(1) Possess a degree in Engineering (Civil) or Technology (Civil) obtained from any of the Universities or institutions established or incorporated by or under the Central or State Act in India; or any other educational institutions recognized as such or declared to be a deemed as a University under section 3 of the University Grants Commission Act, 1956; (2) The basic knowledge of Computer Application as prescribed in the Gujarat Civil Service Classification and Recruitment (General) Rules, 1967.

(3) Adequate knowledge of Gujarati or Hindi or both.

NAME OF THE POST	DISCIPLINE	NO. OF POSTS
Assistant Engineer (Civil), Class-II (Road and Building	Civil Engineering	285
Dept.)		

#### Post Name: Assistant Engineer (Narmada and Water Resources, Water Supply and Kalpasar Department)

#### **Basic Qualification:**

(1) Possess a degree in Engineering (Civil) obtained from any of the Universities or institutions established or incorporated by or under the Central or State Act in India; or any other educational institutions recognized as such or declared to be a deemed University under section 3 of the University Grants Commission Act, 1956.

(2) The basic knowledge of Computer Application as prescribed in the Gujarat Civil Service Classification and Recruitment (General) Rules, 1967.

(3) Adequate knowledge of Gujarati or Hindi or both.

NAME OF THE POST	DISCIPLINE	NO. OF POSTS
Assistant Engineer (Civil), Class-II (Narmada and Water Resources, Water Supply and Kalpasar Department)	Civil Engineering	285

#### Has the GRE become tougher?

Hello Guys,

- 1. GRE is a marathon 4 hour test.
- 2. You need to be zoned in throughout the entire test
- 3. It's a time sensitive test. Your ability to priorities and time management are essential skills.
- 4. If your academic record or gpa is average and you haven't done any internship or publish any research papers then your GRE score is very imp. This increases your stress level.
- 5. Verbal section test insanely your vocabulary so only mugging of words will not work.
- 6. Critical reasoning is important
- 7. Questions and Answers are prepared by psychometric which means they are designed to trap you in selecting answers which sounds right but aren't

#### Good news!!

- 1. 3 months is good enough to appear for GRE
- 2. Apart from vocab it is devoid of theory.
- 3. Its standardized test which means syllabus is set. The way ques are created and the way options are set is predictable.

#### Important tips

- 1. Quantitative comparison will be important.
- 2. You need to be fast.
- 3. Formula sheet is irrelevant if you do not know how to implement it
- 4. Same goes for word list.
- 5. Focus on Rc
- 6. Issue and argument essays always come from pool of essays. Practice couple of them before actual paper while, practicing for verbal in mocks gives 10 mins for rest of section and 20 mins for Rc. The shorter Rc is trickier The Longer Rc is easy.

#### Books to be referred

- 1. Ets official guide
- 2. Kaplan
- 3. Princeton
- 4. For vocab use Magroosh app.

- 5. For Rc use to Rc 99.
- 6. To improve verbal do barrons test
- 7. If quant is weak you can use nova.
- 8. Manhattan 51b specially advance quants topic

#### Test to be given

- 1. Ets powerprep 1
- 2. Kaplan test
- 3. Princeton test.
- 4. If u have any classes test so couple of them.
- 5. Manhattan
- 6. Magroosh
- 7. Ets Powerprep 2

#### Make sure you practice 10-12 test **Current pattern of quant**

- 1. 15 Qcs
- 2. 11 Mcqs with one option
- 3. 4 mcqs with more than one option
- 4. 4 numeric entry
- 5. 6 Di questions

#### Important topics as per current trend,

- 1. Geometry
- 2. Coordinate Geom
- 3. Permutation, combination and probability
- 4. DI
- 5. Statistics (especially averages)
- 6. Numbers
- 7. Quadratic eqns.

#### -Harsh Shah (An Alumnus of Civil Engineering Department, 2014-18 Batch)

#### **Student's Corner**



Compiled by Civil Engineering Department for Educational Purpose



-Rahul Polekar

#### <u>Good Times</u>

#### And

Soon the happiness showers, So does the blossom of the flowers. Soon he was evading the pain, So he was blessed like a desert after rain. Soon he stood up and threw away the tears, So he crippled the odds and rose above fears. Soon his shoulder got reserved for a head, So he again decided to put life in the dead. Soon he found the reasons for the secret smiles, So he held her hand to walk a hundred miles.

Waseem Raja

#### Mirror

Mirror, Mirror why are you so bad When she looked at; you made her sad.

Mirror, Mirror she is ugly you claimed At that moment her heart even lamed

*Mirror, Mirror did u peeped in heart? She was within herself a living art.* 

*Mirror, Mirror you showed her the fake Instead of ocean, you just showed her lake.* 

> Mirror, Mirror a lot she cried Her soul inside was almost died

Mirror, Mirror why did you hide The beauty of her inner side -Sayoni Mukherjee

#### The Falling Leaf

Walking around the lane i saw a leaf falling down... don't cry i said, you were once it's Crown...

> the leaf sighed, paled and said it was only till I paid...

As soon as i lost the colour green i became like the rust of tin.!

slowly the tree made me separate this is what nature teaches mate

the world will worship till you are in power all the good wishes they will shower

> once the use of your's is gone you are treated as a moron! -Sayoni Mukherjee

#### Who am i?

Questioning my own existence, who am I? Dying a hundred deaths actually before I die! Collecting my own pieces and trying to put them back, The gap has turned into a deep gorge which once looked only a small crack. I look battered, bruised and confused when I look into the mirror, Staring and cursing my own self I wish I could be near her. Good, bad, wrong or right it's all after all about perception, But love! Don't forget this one thing that I call you my reflection. I can see the whole world passing but I can't find myself, More than me, it's you in my writings kept pile by pile on my shelf. I wish I could hold you again and fly across the sky, There you look into my eyes and remind me who am I.!

-Waseem Raja

#### <u>સમય ક્યાં???</u>

લોકો પાસે ખુશી હશે કદાચ, પણ હસવા માટે સમય ક્યાં? દોડે છે લોકો કમાવા માટે દિવસ રાત, પણ જીવવા જિંગદી ને સમય ક્યાં? મોબાઈલ માં તો હશે નામ બધા ના, પણ મિત્રતા માટે સમય ક્યાં? પારકા ઓ ની વાતો થઇ છે બોવ, પણ પોતાના માટે સમય ક્યાં? હશે આંખો માં સપના ઘણા બધા, પણ શાંતિ થી સુવા નો સમય ક્યાં? અહેસાસ બધા ને થઇ છે "માં" ના હાલરડા નો, પણ મમતા "માં" ની મેળવવા સમય ક્યાં? હૃદય બનશે ગમ થી ભરેલું એક દિન, પામ રોવા માટે સમય ક્યાં? દરેક પળ મારવા વાળા ને કવ છું, જીવવા માટે સમય ક્યાં? કોઈ નથી કહેતું સુ થશે આ જિંદગી નું, પણ આ "જનક" નું સાંભળવા સમય ક્યાં?

-Janak Kathiriya



#### જમણવાર અને તેનો બગાડ

ચાલો એક ટ્રચકો થઈ જાય. એક ગામડિયાં કાકા એક લગ્નમાં ગયા. કંકોત્રીમાં જમવાનો સમય સાંજે ૬ થી ૮ નો હતો. કાકા જમવાના સમયે પહોંચી ગયા ને જમવાનું શરૂ કર્યું. જમવાની પહેલી પંગત, બીજી પંગત એમ બધાં જ જમી જમી ને જતાં રહ્યા પણ કાકા નું જમવાનું પત્યું ન હતું. બાજુમાં બેઠેલા એક ભાઈ આ બધું જોતા હતા. એ કહે,"કાકા હજુ તમારું જમવાનું પત્યું નથી ?" કાકા તો બગડ્યાને કહે,"તું બી બોલબોલ ના કર, કંકોત્રી વોંચ જમવાનો સમય ૬ થી ૮ છે."

એ હ્રાંભળો સો ! આજ રાતે પેલા ફલાણાં ભાઈની દિકરીના લગનમાં જાવાનું સે ને જમવાનો સમય ૬:30 થી ૮:30 નો છે.

આપણાં હિન્દુ ધર્મમાં એટએટલા ઉત્સવો છે કે ના પૂછો વાત. ને દરેક પ્રસંગમાં જમવાનું તો ખરું, ને જમવાનું પણ જાતજાતનું ને ભાતભાનું. જેમકે થાઈ, ઈટાલિયન, મેક્સિકન, ચાઈનીઝ, પંજાબી, સાઉથ ઈન્ડિયન, કાઠીયાવાડી ને ગુજરાતી તો બાકી જ રહ્યું. બસ બસ હવે મોંમાં પાણી આવી ગયું. જમવાની એટલી બધી પસંદગી હ્રોય છે કે શું ખાવું ને શું ના ખાવું ખબર જ નથી પડતી.

હ્ય આજે વાત કરવી છે જમણવાર અને એનાથી થતા અન્નના બગાડની. લગ્ન એ ઘરનો એવો પ્રસંગ છે કે જે જીવનમાં એકાદ બે વખત આવે એટલે આપણે એને ધામધૂમથી ઉજવવો રહ્યો. કોઈપણ પ્રસંગમાં કાંઈ નહિ પણ જમવાનું તો સારું હોવું જ જોઈએ. પણ આપણે એમના રૂપિયાનો બગાડ કેમ કરીએ છીએ ? હું જ્યારે ૬-૭ વર્ષનો હતો ત્યારે જમવામાં માત્ર ગુજરાતી થાળી ને એ પણ વાડીમાં પાટ પર બેસીને જમવાનું ને આજે ઊભા ઊભા.

આ બધું તો ઠીક પણ આપણે ભારતીયો જે 33 કરોડ દેવતામાં માનવાવાળા, જ્યાં આપણે વાયુ, જળ, અઝિ, ધરતી ને અન્નને દેવતા મનવાવાળા ને આવી પવિત્ર ભૂમિ પર જન્મ લેનારા આપણે અન્નનો બગાડ શું કામ કરીએ છીએ. જાત અનુભવથી એક વાત કઠુંને તો,'જો તમે તમારી થાળીમાં અન્નનો બગાડ નઠિ કરોને તો તમને કોઈ દિવસ કોઈ બિમારી નઠિ આવે.' અમારા ઘરની વાત કરું તો ૯૯% અમે પીરસેલું ભાનું બગાડતા જ નથી. ને આથી જ અમને કોઈ પ્રકારની બિમારીને લીધે રૂગ્ણાલયમાં જવાનો વારો આવ્યો નથી. અન્નનો બગાડ માત્ર લગ્નમાં જ થાય છે એવું નથી એતો ઘરમાં, રેસ્ટૉરામાં પણ થઈ શકે છે. જ્યારે પસંદગી વધુ હોય ત્યારે વધારે પ્રમાણમાં બગાડ થાય છે. લોકો પોતાની પસંદ નાપસંદ જાણી શકતા નથી, ને પોતાની જરૂરિયાતો પણ સમજી શકતો નથી. દેખાદેખી આખી થાળી પીરસાવે છે ને પછી આમાં તેલ જરા વધારે છે, આનો સ્વાદ બરાબર નથી, બસ મારૂં પેટ ભરાઈ ગયું જેવા બહાના કાઢીને જમવાનું છાંડે છે. આપણે જ્યારે મંદિરમાં જઈએ છીએ ત્યારે આવું બનવાની સંભાવના નઠિવત હોય છે, કારણકે આપણે 'આતો પ્રસાદી કઠેવાય આને કેમ બગાડાય ?' એવું વિચારીએ છીએ અને થાળી મુકવા જઈએ ત્યાં પણ એક માણસ ઊભો હોય છે જે આપણને પરાણે તો પરાણે પણ થાળી પૂર્ણ કરવાનું કઠે છે. પણ અન્નતો કુદરતે આપેલી અણમોલ ભેટ જ તો છે તો શું મંદિર ને શું લગ્ન ? અન્નનો બગાડતો ના જ થવો જોઈએ.

ભારત દેશ જેની આશરે વસ્તી જ ૧૩૫+ કરોડ જેટલી છે. જ્યાં માનવીને માંડ માંડ એક ટંક પૂરતું મળતું હોય છે. જ્યારે આપણને ચોવીસ કલાકમાંથી ગમે ત્યારે ગમે તે ખાવાનું બનાવીને કે મંગાવીને ખાઈ શકીએ છીએ. આપણે જમાડી નથી શકતા તો કાંઈ નહિ પણ જમવાનું બગાડી એ તો નહિ. ઘણાં લોકો જમવાનું બગાડે એને મોટાઈઓ માને છે પણ હકીકતમાં તો એ સૌથી તૂચ્છ માનવીઓ છે. ને આવાજ લોકોને લાંબા ગાળે જાત જાતની બિમારીઓ આવે છે ને જમવાનું નસીબ નથી થતું. એક વાત તો સાચી જ છે," જો તમે બીજાની કદર કરશો તો જ એ તમારી કદર કરશે. "

દેશમાં ઘણી વાડીઓ, હૉલ, ને પાર્ટી પ્લોટ છે જ્યાં દિવસના કેટલાય પ્રસંગો ઉજવાય છે ને કેટલુંય જમવાનું બગડે છે. જો એનો હિસાબ વજનમાં કરીએ તો ટનમાં, રૂપિયામાં કરીએ તો કરોડોમાં છે. ૨૦૧૭-૧૮મા કુલ ૨૪૪૪.૭૪ટન અન્નનો બગાડ થયો હતો. જ્યાં દેશમાં ભૂખ્યા લોકોની સંખ્યા કાંઈ કરોડોથી ઓછી તો નથી જ. પણ હા અત્યારે કેટલાક NGO રેસ્ટૉરન્ટ ને આવા પ્રસંગોમાં વધેલા જમવાનાં નિકાલનું સરસ કામ કરી રહ્યાં છે.

જમવાનું ભાવે તેટલું નહિ પેટ માંગે એટલું લો.

#### -Bhargesh Shah



-Rajesh Makwana

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