

EVERYDAY CURRENT AFFAIRS – AUGUST 15, 2020

TAMIL NADU

- **On August 14, Chief Minister Edappadi K Palaniswami - announced that e-passes will be issued immediately to all applicants for inter-district travel in the state from August 17**
- ✓ The passes will be issued based on submission of Aadhaar/ration card details along with telephone/mobile numbers
- ✓ The existing system will be replaced by an updated automated system for speedy clearance.
- ✓ However, the present e-pass system will remain without any change for people arriving from other states and foreign countries.
- ✓ These returnees will have to apply well in advance and get the necessary clearance.
- ✓ The state government commenced issuing of e-passes to individuals and establishments for inter-district movement since May to facilitate contact tracing when a traveller tests positive for Covid-19.
- ✓ The e-pass is issued for marriages, medical emergencies, death of close relatives, for undertaking important work and for people who are stranded
- ✓ Only 25 lakh of the 71.2 lakh applications were approved by the state in the past three months
- ✓ Now, the Tamil Nadu e-governance agency is modifying its software to give effect to the proposed changes of automated approvals and auto scanning the data entered by the applicants.
- ✓ The system algorithms will 'automatically' detect wrong entries and reject them.

- **On August 14, Chennai City Traffic Police (CCTP) - installed LED signalling 'poles' at a traffic signal near the office of the director-general of police on Marina Beach Road.**
- ✓ These signal poles are popular in European towns like Turkey and Ukraine.



- ✓ The entire cantilever pole, on which traffic lights are fixed, glows according to change in traffic signal light colour.
 - ✓ For instance, when a signal changes from green to red, the entire signalling pole glows red.
- ✓ The pilot project will be expanded to other areas after studying the impact of the new model.
- ✓ If it is received well, tenders will be floated to expand the initiative to other areas in Chennai
- ✓ The illumination of the entire pole with appropriate LED lights provides a clear view of the traffic signal and avoids the jumping of the signal to ensure strict adherence to traffic rules
- ✓ However, this kind of signalling system faced of opposition in some European countries because of high energy consumption and glare to car drivers during rainy days
- ✓ Tamil Nadu leads the country in terms of stop-line and signal violations
 - ✓ On an average 1,600-2,000 licences are suspended by the city traffic police for such traffic offences
 - ✓ Every year around 700 people die and 4,000 get injured because of signal jumping
- **Twenty-three police officers from the state - will be awarded the President's medal for their service on Independence Day.**
- ✓ Among the award winners, two officers will be awarded with President's police medal for distinguished service and 21 officers will be awarded the medal for meritorious service.
- ✓ Two officers —R Antony Johnson Jeyapaul and P Ravichandran -- commandants, Tamil Nadu Special Police Battalion in Avadi and Pochampalli respectively -- will be presented with the President's police medal for distinguished service.
- ✓ The officers were selected at the all India-level for their distinguished work and are awarded twice a year (Republic Day and Independence Day).

- ✓ On August 14, the State government announced that the Tamil Nadu Chief Minister's Police Medal would be given to 15 officers on the occasion of Independence Day.
 - ✓ Five state police officers will receive the CM's Police Medal for excellence in public service during the Independence Day celebrations on Marina Road.
 - ✓ Ten other police officers will be presented with medals for their excellent work in criminal investigations.
 - ✓ The winners will receive a gold medal weighing 8g and a grant of ₹25,000 each
- On August 14, Chief Minister Edappadi K. Palaniswami - launched the distribution of medical kits worth ₹2,500 each under the Amma COVID-19 Homecare scheme
- ✓ The kit will be issued for the benefit of those who have COVID-19 symptoms and have been advised home quarantine.



- ✓ The kit can be obtained from the Tamil Nadu Government Multi Super Speciality Hospital, Chennai.
 - ✓ It contains a pulse oximeter, a digital thermometer, a range of Indian medicine tablets and vitamin tablets, among others.
- ✓ On the same day, Chief Minister inaugurated several medical facilities in districts across the state through video conferencing.
- ✓ It includes a special kidney treatment centre constructed at the cost of ₹24 crore at Pudukottai Government Medical College.

- ✓ The centre, which has been designed to treat Covid-19 patients as well, has 350 ordinary beds, 35 ICU beds, 165 oxygen-supported beds, 15 independent rooms and three specialised treatment rooms.
 - ✓ High-end medical equipment like invasive ventilator, Bipap C pap, multipara monitor with high flow nasal canula (HFNC) and defibrillators are available at the centre, which will function 24/7.
 - ✓ Further, Chief Minister flagged off 30 LED video vans, which will move around Chennai city, in an attempt to create more awareness on Covid-19
 - ✓ **The CM also inaugurated the LED light projects, installed at Napier Bridge and Dr Radhakrishnan Bridge.**
 - ✓ This project will be expanded to 31 other bridges in the city at ₹33 crore, according to the Chief Minister.
- **On August 14, the Tamil Nadu government - set up a 12-member state-level committee to study in detail about all aspects of the draft environment impact assessment notification, 2020.**
- ✓ This follows an announcement made by chief minister Edappadi K Palaniswami during his visit to Tirunelveli last week.
 - ✓ The committee's mandate is to analyse the merits and demerits of the notification and submit recommendations to the government as soon as possible
 - ✓ **Additional chief secretary, environment and forests department has been named chairperson of the committee**
 - ✓ The chairman of the state pollution control board, member secretary of the Chennai Metropolitan Development Authority, commissioner of municipal administration, chief engineer of Public Works Department, director of geology and mining are named as the members representing government.
 - ✓ The member secretary of State Level Environment Impact Assessment Authority is the member secretary of the committee.
 - ✓ S Chandramohan, chairman of CII, Tamil Nadu, Jayashree Venkatesan of Care Earth, a non-government organisation, Ramesh of National Centre of Sustainable Coastal Management, T Sekar, former member secretary of pollution control board and Thangavelu, former chairman of state level environment impact assessment authority are the other members of the Committee
 - ✓ The Union government has proposed EIA Notification 2020 to replace EIA Notification 2006.
 - ✓ The draft notification has been put up in the public domain on March 12 to seek views from all the stakeholders within a period of 60 days.
 - ✓ However, on June 30, the Delhi high court directed the Centre to publish the draft in all 22 official languages mentioned in the Eighth Schedule to the Constitution within 10 days
 - ✓ Further, the Karnataka high court directed the Centre not to publish the draft until September 7.

- ✓ On August 13, the Supreme Court asked the Centre to translate the EIA notification and publish it in all local languages, without confining it to Hindi and English alone.

- **On August 14, Tamil Nadu – reported 5,890 fresh Covid-19 cases and 117 deaths, taking the total caseload in the state to 3,26,245 and 5,514 casualties**
- ✓ As on date, 53,716 people were still under treatment as ‘active cases’

COVID TRACKER

ZONE	New cases	Deaths	Under treatment	Total cases	Total deaths
Chennai Region	2,075	35	20,359	1,64,260	3,194
North	864	17	9,394	41,590	460
South	1,538	37	13,163	71,439	1,148
Central	691	13	5,225	20,651	263
West	660	17	5,208	20,394	331
Other	7	0	150	2,021	1
Total	5,835	119	53,499	3,20,355	5,397

(August 14 figures)

- ✓ With the discharge of 5,556 persons, a total of 2,67,015 persons have been cured of the viral infection till now in the State.
- ✓ Chennai, the worst-affected district, reported 25 deaths and 1,187 fresh cases.
- ✓ Its neighbouring districts – Chengalpet (437), Tiruvallur (495) and Kancheepuram (315) -- reported 1,247 cases and 16 deaths.
- ✓ The other districts with high incidence of cases includes Coimbatore (385), Theni (367), Cuddalore (221), Salem (191), Ranipet (178) and Vellore (178)
- ✓ In the last 24 hours, a total of 70,153 samples were tested in the State.

STATES

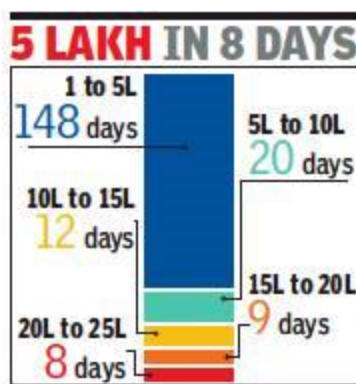
- **On August 14, the Hemant Soren government in Jharkhand - unveiled the new State logo at Ranchi on the eve of Independence Day.**



- ✓ The circular logo has the national emblem at the centre.
 - ✓ The emblem is enclosed in concentric circles depicting Jharkhand's culture and its abundant natural resources.
 - ✓ The logo was launched in the presence of Jharkhand Governor Draupadi Murmu and Chief Minister Soren.
- **The Kerala government – has published an ‘open’ list of 39 doctors along with their health problems to justify abruptly terminating their service contracts on grounds of “susceptibility” to the virus**
- ✓ The list mentions the age of each of the contracted doctors, the units they were attached to and their individual health issues like diabetes, cancer, cardiac condition, high cholesterol and hypertension.
 - ✓ The list, which breaches the privacy of the affected doctors, comes soon after the recent decision of the Kerala police to collect the call detail records (CDR) of people testing positive for Covid-19
 - ✓ The list was published by the Kerala Social Security Mission (KSSM) that runs the Vayomithram health care project
 - ✓ The termination order and the list state that the government has advised senior citizens to be confined to their homes as they are more susceptible to Covid-19.
 - ✓ It says the advisory is also applicable to doctors employed in the Vayomithram project.
 - ✓ According to KSSM, the doctors are being removed from the project because there would be a shortage of medical officers in case they are infected by the virus.

NATIONAL

- **On August 14, India's Covid-19 caseload - crossed 25-lakh mark, after reporting 65,269 fresh infections to reach 25,23,480 cases.**



- ✓ Only the US and Brazil have recorded more Covid-19 cases than India.
- ✓ In August, India has so far added nearly 8.3 lakh cases, the highest in the world.
- ✓ Of the total cases, recoveries stood at 18 lakh, 71% of the total, while active cases were over 6.7 lakh.

- ✓ There were 985 deaths reported on the day, taking the total toll to 49,054.
- ✓ The highest deaths on the day were reported from Maharashtra (364), Tamil Nadu (117), Karnataka (104), AP (97), Bengal (60) and UP (59).
- ✓ The highest number of cases was again added by Maharashtra (12,608, its third highest count), followed by Andhra Pradesh (8,943) and Karnataka (7,908)
- ✓ With this, Maharashtra leads the country with the total cases of 5,72,734 and 19,427 fatalities.
- ✓ **From August 17, the US will resume processing students visas in Delhi, Mumbai, Chennai, Hyderabad and Kolkata as this fall semester is about to begin from next month.**
- ✓ Thousands of Indians students who got admission to US colleges have been waiting for the process to begin
- ✓ The US embassy will, however, continue to remain closed for routine immigrant and non-immigrant visa services.
- ✓ The US will first process emergency student and exchange visitor appointment requests received prior to August 12 and then offer public appointments.
- ✓ **The Vaishno Devi temple in J&K's Trikuta Hills — which was closed since March 18 in the wake of the Covid-19 pandemic — will reopen from August 16.**
- ✓ However, only 2,000 pilgrims will be allowed to visit the shrine daily during the first week
- ✓ Among them, 1,900 pilgrims will be from within Jammu & Kashmir and the remaining 100 from outside J&K
- **On August 14, the Health Ministry – announced that India has exported 23 lakh personal protection equipment (PPE) kits to five countries in just one month**
- ✓ The PPEs were exported to the US, UK, UAE, Senegal and Slovenia in July
- ✓ In a major push to the government's 'Atmanirbhar Bharat' campaign, the PPE exports has positioned the country as a key player for Covid-19 related medical supplies to the global market.
- ✓ It has to be recalled that India was importing PPE kits initially to combat the pandemic
- ✓ The country commenced local manufacturing of the kits around February-March to cater to local demands, as there was a global shortage of all kinds of medical equipment, including N95 masks, PPE kits and ventilators
- ✓ Currently, India is meeting its requirement for these products through indigenous production.
- ✓ Between March and August, the Centre distributed 1.28 crore PPE kits to the states and Union Territories free of cost, while the states directly procured an additional 1.4 crore PPEs using their budgetary resources.

- ✓ In view of the strengthened domestic production capacity and having met the domestic requirements for PPEs, the revised notification of the Director-General of Foreign Trade in July permitted export of PPEs.
- **The Centre - plans to expand the Ayushman Bharat health insurance framework to include 45 crore 'non-poor population' who are currently not covered under any government or private insurance scheme**
 - ✓ The proposed plan is to offer coverage on 'self-pay basis' to those who are only a little better off than the PM-JAY beneficiaries.
 - ✓ Further, it aims to reduce insurance premium by around one-third of the existing retail price to make it affordable to people who are just above the poverty line
 - ✓ Apart from Ayushman Bharat and other government schemes, around 12.5 crore people are covered under private health insurance.
 - ✓ Of this, around 7-8 crore people access schemes offered by employers and rest buy a policy from retail market at a higher premium.
 - ✓ However, for a policy of ₹3-₹5 lakh, the average premium for a young family is around ₹10,000-₹15,000 annually, while those involving elderly will have higher premiums.
 - ✓ The proposed scheme is likely to reduce the premium to ₹4,000- ₹5,000 per year for a health cover of ₹5 lakh
 - ✓ Under the proposal, it will be mandatory for insurers to maintain basic features of AB-PMJAY scheme such as a family floater with no cap on the number or age of family members in a group.
 - ✓ The policy cover will be sold to groups like RWAs (for their employees), delivery groups and cab integrators to ensure a mix of individuals of all age groups and with variety of disease profiles, to make it viable for insurance companies too.
 - ✓ The scheme should help persons in informal employment or gig workers.
 - ✓ The National Health Authority – the implementing agency of the PMJAY scheme - -has invited expressions of interest from insurance companies that are interested in participating in the project targeting the “missing middle”.
 - ✓ The governing board of Ayushman Bharat has given approval for pilot proposals for informal sector workers, self-employed, less paid professionals and employees in MSMEs across occupations, geography and income strata, utilising the PM-JAY framework.
 - ✓ While the basic Ayushman Bharat package rates will apply, insurers will be able to customise those packages based on services.
 - ✓ At present Ayushman Bharat provides a free annual cover of ₹5 lakh to around 10.74 crore 'deprived' families, covering around 50 crore people.
- **India - has developed a real-time air quality monitoring system called AUM (Air Unique-quality Monitoring), which will end the country's dependence on imported systems**

- ✓ The newly developed indigenous system costs only one-fourth of the price of imported systems
- ✓ It can simultaneously capture 21 air quality parameters round the clock.

Indigenous Air Unique-quality Monitoring (AUM) Photonic System developed for Real-Time Remote Monitoring of Air Quality



The image shows the AUM Photonic System components, including a cylindrical sensor unit and a black protective cap with the 'aum' logo. To the right is a screenshot of the system's software interface, which displays a dashboard with various air quality parameters and a real-time data graph.



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- ✓ It has already been tested at two locations in Bengaluru under the Central Pollution Control Board (CPCB) and Karnataka state pollution control board.
 - ✓ AUM was successfully evaluated during laboratory trials with gold standard (in collaboration with Effec-Tech, UK) and also compared well with imported systems from France and Australia
 - ✓ This was informed by the Union Minister of Science & technology, Dr. Harsh Vardhan.
 - ✓ He said this system can boost the nation's efforts towards self-reliance in high-end technologies.
 - ✓ The system has been developed by Rao Tatavarti, Director of Gayatri Vidya Parishad-Scientific and Industrial Research Centre (GVPSIRC) & GVP College of Engineering, Visakhapatnam, with the support from the science & technology ministry's Clean Air Research initiative.
 - ✓ A former DRDO senior scientist, Tatavarti was supported by P Arulmozhivarman from the School of Electrical Engineering, VIT University, Vellore, and other team members.
 - ✓ CATS Eco-Systems, Nashik has been approved as the technology transfer partner for the commercialization of the system
- **Jamia Millia University - scored a total of 90% in a self-assessment exercise, based on annual targets set by each university under performance parameters determined by the Centre.**
- ✓ Jamia achieved the highest score for 2019-20 in the internal assessment, followed by Rajiv Gandhi University in Arunachal Pradesh, and Jawaharlal Nehru University in New Delhi.



- ✓ However, the Education Ministry (formerly the Ministry of Human Resource Development or MHRD) notes that this is an internal assessment, not a ranking, as the targets are self-determined and not comparable across universities.
- ✓ The MHRD does the internal assessment of Central Universities regularly based on an annual MoU signed with MHRD, UGC [University Grants Commission] and universities.
- ✓ At the beginning of each year, universities set their targets on various parameters, including student intake and diversity, faculty strength, research, patents and financial management.

SUPREME COURT VERDICT

- **On August 14, the Supreme Court - held civil rights lawyer Prashant Bhushan guilty of criminal contempt by “scandalising the court” for his two “false and malicious” tweets**



- ✓ In their unanimous 108-page judgment, a bench of Justices Arun Mishra, B R Gavai and Krishna Murari said Bhushan’s two tweets in June were a calculated attempt to scandalise the CJI and the SC and denigrate the judiciary.
- ✓ Out of the two tweets, the first one was found to be accusing the CJI of riding a ₹50-lakh motorbike while keeping the SC closed during the lockdown and the other tweet saying that the present and four former CJIs played a role in the destruction of democracy in the last six years
- ✓ Both the tweets have been withheld by Twitter India, in response to the legal demand.

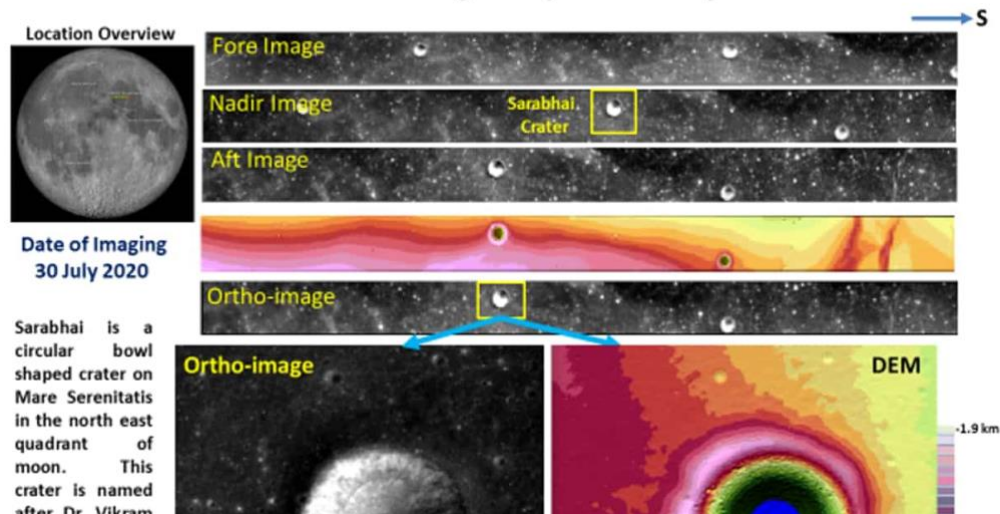
- ✓ The bench will resume the arguments on the quantum of punishment on August 20.
- ✓ Interestingly, the SC did not resort to the Contempt of Court Act, 1971 in convicting Bhushan.
 - ✓ It used its inherent powers under Article 129 of the Constitution to punish for contempt of itself.
 - ✓ While the Contempt of Court Act provides a maximum sentence of six months or fine of Rs 2000 or both for criminal contempt, Article 129 does not provide an outer limit.
- ✓ During the verdict, the SC said it would always take a magnanimous approach towards fair criticism of judges, judgments and courts but warned that malicious attacks on the judiciary, which it said was the central pillar of Indian democracy founded on the bedrock of public faith in the institution, would be dealt with an iron hand
- ✓ According to SC, a citizen was entitled to make fair criticism of judges and the judiciary but free speech must remain entrenched within the boundaries of reasonable restrictions listed under Article 19 (2)
 - ✓ If a citizen, while exercising his right under Article 19 (1), exceeds the limits and makes a statement, which tends to scandalise the judges and the institution of administration of justice, such an action would come in the ambit of contempt of court,” the SC said.
- ✓ The bench laid down two more characteristics of free speech that would amount to contempt of court.
 - ✓ “If a citizen makes a statement which tends to undermine the dignity and authority of this court, the same would come in the ambit of ‘criminal contempt’. When such a statement tends to shake the public confidence in judicial institutions, the same would also come within the ambit of ‘criminal contempt’,” it said.
- ✓ The bench clarified that criticism of a judge, as an individual and not as a judge, would not fall in the ambit of contempt.
 - ✓ However, when the statement is made against a judge as a judge and which has an adverse effect on the administration of justice, the court would certainly be entitled to invoke the contempt jurisdiction,” it said.
- ✓ The Supreme Court on July 22, 2020 issued contempt notice to Prashant Bhushan for his derogatory tweets on the Judiciary and the CJI.

SCIENCE, TECHNOLOGY & ENVIRONMENT

- **The terrain mapping camera on board Chandrayaan-2’s orbiter - has captured the image of Sarabhai crater, named after the father of the Indian space programme, Vikram Sarabhai, on the moon.**
- ✓ The landing sites of American Apollo 17 and Soviet-launched Luna 21 missions lie 300 km east of this crater.

- ✓ According to Isro, a 3D view of the crater was generated using the orbiter's TMC-2 digital elevation model and ortho image that were taken on July 30, the details of which were put on the agency's website on August 12

Sarabhai Crater Imaged by Chandrayaan-2 TMC-2



- ✓ The country is celebrating Dr Vikram Sarabhai's birth centenary this year
- ✓ Regarding the Sarabhai crater, the crater's outer region is dominated by numerous smaller craters of varying diameter distributed over the flat Mare plains and does not have any large crater in its vicinity.
 - ✓ The raised rim, the gradient inner walls and the small hummocky floor makes the Sarabhai crater an excellent example to understand the impact processes on the lava filled region of the Moon," according to Isro.
- ✓ **In another development, on August 14, the Indian Institute of Science announced that it has developed a sustainable process for making brick-like structures on Moon, in association with Isro.**
- ✓ The process exploits lunar soil, and uses bacteria and guar beans to consolidate the soil into possible load-bearing structures.
- ✓ These "space bricks" could eventually be used to assemble structures for habitation on Moon's surface, according to the researchers.

DEFENCE

- **A new accessory called 'Under barrel grenade launcher' (UBGL) developed for AK-47/Trichy Assault Rifle (TAR) - was launched by the Ordnance Factory of Tiruchirappalli (OFT).**
- ✓ Hari Mohan, chairman of Ordnance Factory Board (OFB), Kolkata, launched the accessory through video conferencing held at OFT campus on August 14 as part of Atmanirbhar Bharat Abhiyan.
- ✓ UBGL, weighing about 1.6kg, can launch high-explosive grenades with a range of 400m.

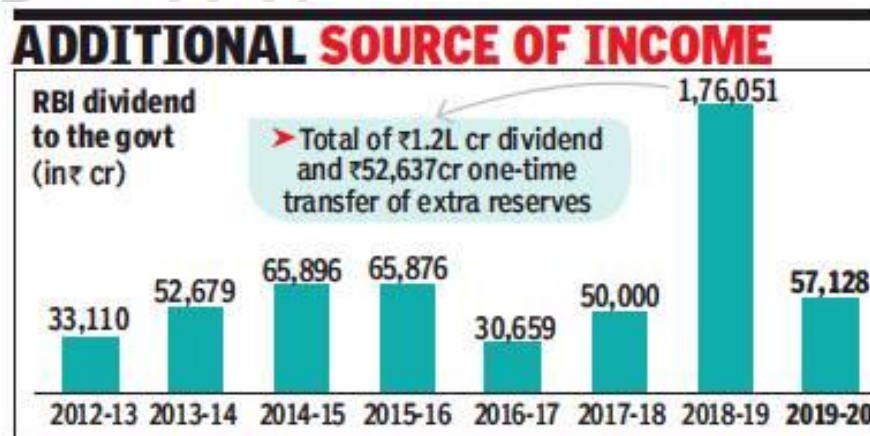
- ✓ It is a single shot, breech loaded launcher capable of increasing the firepower and can be attached and dismantled in less than a minute.



- ✓ At present, the Indian Army, central armed police forces and few state police special task forces are importing UBGL from Russia and East European countries.
- ✓ OFT has been indigenously developed UBGL in the last two years and is likely to start production within the year.
- ✓ The 40mm UBGL is very useful in combat actions and counter-terrorist operations for infantry, special forces and law enforcement units.

ECONOMY

- The Reserve Bank of India (RBI) - announced a dividend payout of ₹57,128 crore to the government, in line with Budget expectations



- ✓ This year's dividend is not comparable to last year's surplus transfer of ₹1,76,051 crore, which included a one-time transfer of extra reserves in line with the recommendation of the Bimal Jalan committee.
- ✓ The dividend was declared in the 584th meeting of the RBI's central board on August 14.
- ✓ Besides approving accounts and maintaining a 5.5% contingency risk buffer, the board also discussed setting up of an innovation hub.

- ✓ Before adoption of the Jalan committee recommendations, the contingency risk buffer had stood at 6.8%.
- ✓ In the Union Budget 2020, the government had provisioned ₹89,600 crore in dividends from the RBI, state run banks and financial institutions.
- ✓ Of this, the RBI was expected to contribute ₹60,000 crore.
- ✓ The nationalised banks will not be declaring any dividend this year as the RBI has barred them from doing so in order to conserve capital to cover defaults arising out of the Covid-19 crisis.
- ✓ The overall balance sheet of RBI had improved by close to 30% in the RBI accounting year.
- ✓ At the current rate, the total capital of the RBI including reserves is ahead of the 20.8%-25.4% recommended by the Jalan Committee that the central bank needs to maintain.

AWARDS

- **The nation's second-highest peacetime gallantry medal Kirti Chakra - has been posthumously awarded to J&K police head constable Abdul Rashid Kalas**
- ✓ Further, a total of nine recipients were announced for the Shaurya Chakra in the Independence Day medals' list.



- ✓ Kalas showed exemplary bravery while martyred during a fierce encounter in Pulwama district of south Kashmir, in which three terrorists, four security personnel and a civilian were killed in February last year
- ✓ The three Army soldiers conferred with the Shaurya Chakra, all for anti-terrorist operations in J&K, are Lt-Colonel Krishan Singh Rawat (Para-Special Forces), Major Anil Urs (Maratha Light Infantry) and Havildar Alok Kumar Dubey (Rajput Regiment).
- ✓ Wing Commander Vishak Nair of the IAF has been conferred the medal for successfully retrieving a Sukhoi-30MKI fighter that had developed a technical snag in air.



- ✓ The other Shaurya Chakra awardees are Amit Kumar, deputy inspector general of J&K police, and four CISF personnel who have got it posthumously.
- ✓ Of the 84 gallantry medals approved by President Ram Nath Kovind, there are five 'bar' to Sena Medals (awarded for the second time to an individual), 60 Senas Medals, five Vayu Sena Medals and four Nao Sena Medals.
- ✓ There are also 19 Mention-in-Despatches for Army soldiers.
- ✓ Jammu & Kashmir police and CRPF personnel engaged in counter-terror operations in the Union territory walked away with 122 or nearly 57% of the 215 police medals for gallantry awarded this Independence Day
 - ✓ J&K police got the highest haul of 81 gallantry medals.
 - ✓ The valiant acts of 55 CRPF personnel, including 41 in J&K and 14 in Left-wing extremism-hit zones, were also honoured.
- ✓ In recognition of the "raw courage" displayed by Indo-Tibetan Border Police (ITBP) personnel, the paramilitary force has recommended 21 of its personnel for gallantry medals
 - ✓ This is the first time the ITBP, deployed with the Army along the undefined Line of Actual Control (LAC), has confirmed the violent face-offs with Chinese troops in sectors other than the Galwan Valley, where 20 Army personnel were killed on June 15.
 - ✓ Other than the 21 recommendations, 294 other ITBP personnel received the Director General Gallantry Commendations "for displaying raw courage and bravery during face-offs and skirmishes in Eastern Ladakh in May-June 2020."
 - ✓ The recommendations for gallantry medals, announced twice on the occasions of Republic Day and Independence Day each year, are scrutinised and cleared by the Home Ministry.
 - ✓ The ITBP also recommended the names of 318 personnel and 40 other Central armed Police Force personnel for award of Union Home Minister Special Operation Medals for their dedicated services in fight against the COVID-19.
- ✓ The Central Bureau of Investigation (CBI) has bagged 32 President's Police Medal for Distinguished Service and Police Medal for Meritorious Service on Independence Day this year.

EFFECTIVE MASK AGAINST COVID-19 – A REPORT

WHICH MASK IS THE MOST EFFECTIVE?

Everybody has to wear a mask to check the spread of coronavirus, that much is now certain after mixed messages initially led to confusion about this crucial protective cover. But is every mask the same in terms of the protection it offers? Researchers at Duke University in the US who analysed 14 types of masks – from N95 to the homemade varieties – found that most are quite effective although some can be better than others. Here's how the masks ranked



#MASKINDIA

1 Fitted N95

The Duke study, like several others, found fitted N95 masks the most effective at blocking droplets – less than 0.1% of droplets get transmitted through the mask. It's the recommended mask for healthcare workers who have the greatest exposure to the coronavirus



2 Surgical

Usually three-layered, disposable surgical masks are intended to prevent the wearer from spreading infection and do not fully protect the wearer from inhaling infectious particles because they are relatively loose fitting compared with N95s



3 Three-layer cotton-polypropylene

A cotton-polypropylene combination mask consists of three layers – two cotton and one polypropylene in between. Polypropylene is a plastic-like material that acts as a filter. It's capable of holding an electrostatic charge, which helps capture droplets both outside and inside the mask



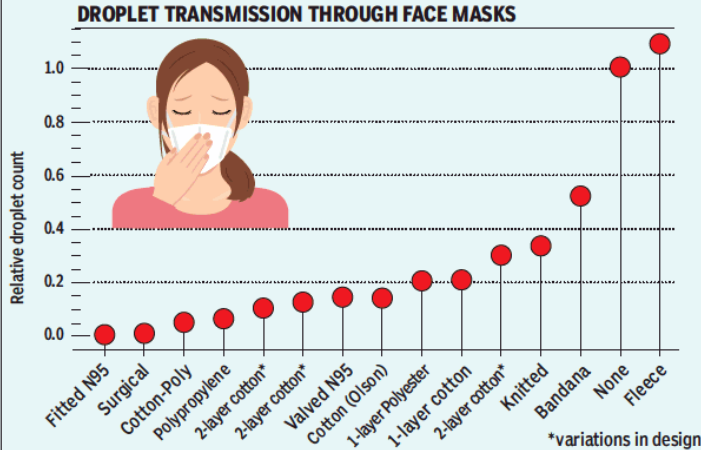
4 Two-layer polypropylene apron

Unlike the cotton combination mask, a polypropylene apron is a two-layer mask made with the synthetic material. Adding a propylene layer to a cotton mask was found by one study to improve its effectiveness by 35%



5 Two-layer cotton pleated with multiple strings

A cotton mask is the easiest type to buy or make cheaply. They are generally recommended to be two-layered and pleated at the front for increased effectiveness. Multiple strings for tying help tighten the mask around one's face



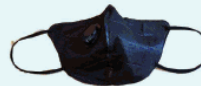
6 Two-layer cotton pleated with two sets of strings

It's similar in effectiveness to most other two-layer cotton masks, but with fewer strings to fasten around the face



7 Valved N95

A valved N95 mask has a filter fitted into it but its main purpose is to prevent inhalation of harmful materials and help with exhalation, which may be why it's not as effective as some other fabric masks



8 Two-layer cotton, Olson style

This one too can be made at home. The Olson pattern was reportedly devised by medical workers for use in the absence of surgical and N95 masks. It has a cone-shaped fit around the nose and mouth



9 One-layer polyester woven fabric

A single-layer type with a 100% polyester woven medical "barrier fabric", in this case by the North American company Maxima. This one does better than the single- or double-layer cotton pleated mask



10 One-layer cotton pleated mask

Although with a layer less, this was actually found by the study to be slightly better than the two-layer cotton pleated variant



11 Two-layer cotton pleated with ear loops

Researchers not linked to the study have said a tight-weave cotton mask is a good option although it came in below single-layer pleated cotton masks



12 Knitted

Knitted masks may not be such a good idea, according to the study, as they leave gaps for transmission of droplets



13 Bandana

In the same category as knitted masks, the fabric involved mostly means these are ineffective against droplets



14 Fleece neck gaiter

A sort of protection for the neck, the study found its fleece variant is worse than not wearing a mask as speaking through such masks breaks down larger droplets and spreads them further than when there's no mask



Source: ScienceMag.org; Graphic: Anil Dinod