

**ANSWERS**

1. (b)	21. (a)	41. (a)	61. (a)	81. (d)
2. (d)	22. (b)	42. (b)	62. (a)	82. (a)
3. (a)	23. (a)	43. (a)	63. (d)	83. (d)
4. (d)	24. (d)	44. (a)	64. (c)	84. (a)
5. (c)	25. (b)	45. (b)	65. (a)	85. (b)
6. (c)	26. (c)	46. (c)	66. (c)	86. (b)
7. (d)	27. (a)	47. (d)	67. (b)	87. (c)
8. (a)	28. (d)	48. (a)	68. (b)	88. (a)
9. (d)	29. (b)	49. (b)	69. (d)	89. (a)
10. (a)	30. (c)	50. (a)	70. (c)	90. (d)
11. (b)	31. (a)	51. (b)	71. (b)	91. (c)
12. (c)	32. (d)	52. (a)	72. (b)	92. (d)
13. (d)	33. (b)	53. (d)	73. (c)	93. (d)
14. (a)	34. (c)	54. (c)	74. (d)	94. (a)
15. (d)	35. (d)	55. (a)	75. (a)	95. (c)
16. (c)	36. (c)	56. (d)	76. (c)	96. (b)
17. (b)	37. (a)	57. (b)	77. (c)	97. (a)
18. (d)	38. (d)	58. (c)	78. (c)	98. (b)
19. (a)	39. (c)	59. (b)	79. (c)	99. (a)
20. (c)	40. (d)	60. (a)	80. (d)	100. (b)

1. (b) British scientists have developed the world's smallest surgical robot called as Versius. It mimics the human arm and can be used to carry out a wide range of laparoscopic procedures – including hernia repairs, colorectal operations, prostate and ear, nose and throat surgery – in which a series of small incisions are made to circumvent the need for traditional open surgery.
- This reduces complications and pain after surgery and speeds up recovery times for patients.
- It is controlled by a surgeon at a console guided by a 3D screen in the operating theatre.
2. (d) Applications of Indian Regional Navigation Satellite System (IRNSS)/NavIC:
- Terrestrial, Aerial and Marine Navigation
  - Disaster Management
  - Vehicle tracking and fleet management
  - Integration with mobile phones
  - Mapping and Geodetic data capture
  - Visual and voice navigation for drivers
3. (a) DIKSHA
- It is a unique initiative which leverages existing highly scalable and flexible digital infrastructures, while keeping teachers at the center.
- It is jointly developed by Ministry of Human Resource and Development and National Council For Teacher Education (NCTE) to coordinate the innovative tech-based solutions of teachers and state governments at national level.
- It is built considering the whole teacher's life cycle - from the time student teachers enroll in Teacher Education Institutes (TEIs) to after they retire as teachers.
- States, government bodies and even private organizations, can integrate DIKSHA into their respective teacher initiatives based on their goals, needs and capabilities.
4. (d) Digital India is a central programme to make India ready for a knowledge-based future. The focus is on using technology to create a participative, transparent and responsive government.
- The 3 major targets of the programme are:
1. Digital Infrastructure as a Utility to Every Citizen
  2. Governance & Services on Demand
  3. Digital Empowerment of Citizens
5. (c) Bharat Net program is a high-speed digital highway to connect all 250,000 gram panchayats of country. It is the world's largest rural broadband project using optical fibre.
- Broadband Highways is one of the pillars of Digital India to address the connectivity issue while enabling and providing technologies to facilitate delivery of services to citizens.
6. (c) The portal has been developed by National Informatics Centre (NIC).
- It is an institutional mechanism to automate the entire tracking of issues related to stalled projects from submission of a new project to commissioning on time.
- Government agencies, departments, ministries and private entrepreneurs are eligible to submit issues related to stalled projects through the portal.
- It will proactively identify potential and existing bottlenecks in the execution of projects and communicates administrative measures to overcome them.
- Apart from issues related to stalled projects the portal also acts as a platform to discuss general issues related to the ministry.
- Launching of this portal is in tune with the NDA government's focus on reviving investment climate in the country by removing policy bottlenecks related to infrastructure projects.
7. (d) Digital Literacy
- MeitY has approved the following two Schemes for providing Digital Literacy to the masses: Scheme for IT Mass Literacy, National Digital Literacy Mission was approved in March, 2014.
- The duration of the Scheme was initially 18 months, which was later extended up to June 2016. The Scheme aims to train 10 lakh persons.
- Digital Empowerment of citizens by providing Universal Digital Literacy is an integral component of the vision of Digital

India' initiative. Keeping this in view, a scheme titled 'Digital SakshartaAbhiyan' (DISHA) to make 42.5lakh persons digitally literate in selected householdsthroughout the country was approved.

8. (a) The vision of Digital India aims to transform the country into a digitally empowered society and knowledge economy. The programme will be implemented in phases till 2018. This programme has been envisaged by Department of Electronics and Information Technology (DeitY). It would also bring in public accountability through mandated delivery of Government's services electronically.

LIMBS (Legal Information and Management Based System): It is an easy to access, web-based tool for comprehensive, regulatory and proactive monitoring of court cases.

It is a web-based platform which provides a common access portal to all users having varying needs and cutting across administration pyramids i.e., access is available right from the file dealer to the top management.

(ii) NDSAP (National Data Sharing and Accessibility Programme)

The objective of this policy is to facilitate the access to Government of India owned shareable data and information in both human readable and machine readable forms through a network all over the country in a proactive updatable manner, within the framework of various related policies.

(iii) e-Office

The main objectives of e-office are: - a) to improve efficiency, consistency and effectiveness of government responses; b) to reduce turnaround time and to meet and demands of the citizens charter; c) to provide foreffective resource management to improve the quality of administration; d) to reduce processing delays; e) to establish transparency and accountability; f) the system will automate movement of files within government offices, etc.

9. (d) CERT-In is a functional organization of Ministry of Electronics and Information Technology, Government of India.

Functions are: (1) collection, analysis and dissemination of information on cyber

security incidents; (2) forecast and alerts of cyber security incidents; (3) emergency measures for handling cyber security incidents; (4) coordination of cyber security incident response activities; (5) issue guidelines, advisories, vulnerability notes and white papers relating to information security practices, procedures, prevention, response and reporting of cyber incidents.

**Centre for Development of Advanced Computing (C-DAC)** has emerged as a premier R&D organization in IT & Electronics working on strengthening national technological capabilities in the context of global developments in the field and responding to change in the market need in selected foundation areas.

**ERNET** is an Autonomous Scientific Society of Ministry of Electronics and Information Technology, Government of India. ERNET has made significant contribution to the emergence of networking in the country.

In addition to providing connectivity, it has been meeting the needs of academic and research institutions by providing IT consultancy, project management and training.

ERNET provides Domain name services and connectivity services, both terrestrial & via VSAT.

**Unique Identification Authority of India (2009)** is as an attached office to the Planning Commission now an attached office of Ministry of Electronics & IT.

A key objective of Aadhaar programme is to provide an 'identity infrastructure' for delivery of various social welfare programs and for effective targeting of the welfare services.

10. (a) Institute of Electrical and Electronics Engineers is the world's largest technical professional society.

It promotes the development and application of electro-technology and allied sciences for the benefit of humanity, the advancement of the profession, and the well-being of our members.

It is responsible for the development of national and international standards. It also publishes a number of journals, has many local chapters and several large societies

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in special areas, such as the IEEE Computer Society etc. and provides learning opportunities within the engineering sciences, research, and technology.

It provides opportunities related to education such as IEEE e-Learning Library, Education Partners Program, Standards in Education and Continuing Education Units (CEUs).

IEEE standards affect a wide range of industries including: power and energy, biomedical and healthcare, Information Technology (IT), telecommunications, transportation, nanotechnology, information assurance etc.

**11. (b) Mahila E-Haat**

It is an online platform, where women entrepreneurs can sell their products directly.

Women entrepreneurs don't have to pay any fees for selling the product online.

The only eligibility criteria to register is that the sellers—any women or women members of a self-help group—have to be above 18 years of age to eliminate the problem of child labour.

**12. (c) Big Data initiative**

It means the use of predictive analytics, user behavior analytics, or certain other advanced data analytics methods that extract value from data, and not just to a particular size of data set.

The availability of data is increasing because they are applied in numerous information-sensing mobile devices, aerial (remote sensing), software logs, cameras, microphones, radio-frequency identification (RFID) readers and wireless sensor networks.

**13. (d) It will promote Evidence based decision making.**

It will help in the management of industry and infrastructure.

It will reduce bank's NPA problem and promote financial inclusion.

It will streamline wage management as per dynamic market trend.

It will assist New Start-ups and business units.

**14. (a) Project Loon**

It was started by Google to provide internet connectivity to remote parts of India. This

technology has been tested by Google in Brazil, New Zealand and California in USA.

It aims to launch and maintain a fleet of balloons to provide Internet coverage to users on the ground, with the Auto launchers capable of safely and consistently launching a new balloon every 30 minutes.

**15. (d) Blogging and micro blogging**

Blogging is a collection of ideas published online with no character limit. E.g. Tumblr.com and WordPress.com

Microblogging enables its users to send and publish short messages (about 140 characters). E.g.: Twitter.

Blogging site updates at the discretion of the blogger while a microblogging site keeps updating minute by minute.

**16. (c) VidyaVahini Project**

It is an initiative of the Department of IT and Ministry of Communication of the government of India to bridge the digital divide. Its objective is to connect government and government-aided or secondary schools in the country. It enables schools to form their own intranet and Internet facilities for information exchange.

**FRIENDS Project**

The Fast, Reliable, Instant Efficient Network for Disbursement of Services (FRIENDS) Project has been launched by the state of Kerala with a view toward mitigating the hardship of citizens paying taxes by eliminating middlemen, delays and long queues.

**18. (d) Merged Reality**

It is a new way of experiencing virtual reality and real world together, using cutting-edge technology.

It digitizes the real world and allows people to experience the virtual world without coming into conflict with the real world.

It means when the real and virtual world is merged and objects from both can interact. E.g.: Windows Holographic Shell is a major application of Merged Reality which allows virtual computer screens, objects, and people into the real world.

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**19. (a) ADHAAR**

It is a 12-digit random number issued by Unique Identification Authority of India to the residents of India.

Citizens have to provide minimal demographic and biometric information during the enrolment process which is totally free of cost.

The Biometric information required in Adhaar includes ten Fingerprints, two Iris Scans, and Facial Photograph.

It is a strategic policy tool for social and financial inclusion, public sector delivery reforms, managing fiscal budgets, increase convenience and promote hassle-free people-centric governance.

Insecurity over handling of data in Adhaar and misuse in Banking Transactions which can lead to fraud are few disadvantages of Adhaar.

**26. (c) Objectives of ICT in education are:**

1. To implement the principle of life-long learning/education.
2. To increase a variety of educational services and medium/method.
3. To promote equal opportunities to obtain education and information.
4. To develop a system of collecting and disseminating educational information.
5. To promote technology literacy of all citizens, especially for students.

**27. (a) Advantages of E-governance**

Better access to information and quality services for citizens

Simplicity, efficiency and accountability in the government

Elimination of hierarchy

Speed and Cost Reduction

Transparency

Socio-economic Development

**28. (d) E-Basta is a framework to make school books accessible in digital form as e-books to be read and used on tablets and laptops.**

E-Granthalaya is an Integrated Library Management Software developed by National Informatics Centre, (NIC), and Department of Electronics & Information Technology.

E-Sampark is a mechanism to connect the government directly with citizens across India by running mailer, outbound dialing and SMS campaigns.

Mobile Seva aims to leverage wireless and new media technology platforms, mobile devices and applications for delivery of public information and services to all citizens and businesses.

**29. (b) E-NAM is a pan-India electronic trading portal which networks the existing Agriculture Produce Marketing Committee mandis to create a unified national market for agricultural commodities.**

DigiDhanAbhiyaan enables citizens and merchants to undertake real time digital transactions through the DIGIDHAN Bazaar.

E-RaktKosh is an integrated Blood Bank Management Information System to benefit all stakeholders.

Drishtee is a rural model of distribution and promotional network for consumer goods and basic services.

**30. (c) Major points of National Cyber Policy 2013**

It states to engage infosec professionals/ organizations to assist e-Governance initiatives, establish Centers of Excellence, cyber security concept labs for awareness and skill development through PPP.

It has emphasized on the promotion of research and development in cyber security

It calls for the creation of several agencies, including a 24x7 National Critical Information Infrastructure Protection Centre (NCIIPC).

It calls for effective public and private partnership and collaborative engagements through technical and operational cooperation.

It also aims at encouraging all organizations whether public or private to designate a person to serve as Chief Information Security Officer (CISO) who will be responsible for cyber security initiatives.

**31. (a) Exascale computing**

It is the computing system which is capable of at least one EXAFLOPS or a billion calculations per second. It is a significant achievement in computer engineering because it is believed to be the order of processing power of the human brain at neural level.

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China has developed the world's first and fastest super computer that is 24,000 times faster than its international counterparts in 2017.

In 2012 the Indian Government has proposed a 2.5 billion USD supercomputing research project, handled by Indian Institute of Science (IISc), Bangalore.

**32. (d) Applications of Li-Fi:**

It can be used in street and traffic lights.

It can also be used in aircraft, where communication is done through radio waves.

It can be used in vehicles having LED-based headlights and tail lamps.

It can also easily work underwater, where Wi-Fi is of no use.

**33. (b) A quantum dot is a nanoparticle made of any semiconductor material such as silicon, cadmium selenide, and cadmium sulfide.**

Higher peak brightness, better colour accuracy and improved battery lives in mobile phones are the benefits of Quantum dots.

They have application in Medical Science, solar cells manufacturing and they can be integrated into dust that tracks enemies.

**34. (c) ICT Development Index**

It is a composite index that combines 11 indicators into one benchmark measure.

It reflects changes taking place in countries at different levels of ICT development.

Major objectives:

The progress made in ICT development in both developed and developing countries

To measure the digital divide

South Korea, Iceland and Denmark are the the top three countries in the 2016 ranking.

India has been ranked 138th in the 2016 ICT Development Index out of a total of 175 countries.

**35. (d) The 'GlobalSat for DRR' is a UN-driven global initiative on sharing space technology for disaster risk reduction and the launch of this satellite was mooted at the third UN World Conference on Disaster Risk Reduction held at Sendai in Japan in March 2015.**

The proposal for GlobalSat was mooted by CANEUS in cooperation with UN agencies. These include UN Office for Outer Space Affairs, the UN International Strategy for Disaster Reduction, the United Nations Development Programme (UNDP) and the World Bank.

It was proposed in response to the need for a globally interconnected disaster and environmental management system since no single country can afford to develop a complete set of sensors and satellite systems needed for forecasting, monitoring and mitigating disasters.

CANEUS was founded in 1999 to develop a common platform for space technology solutions for natural and man-made disaster management.

The renaming of GlobalSat after Kalam will be a tribute to his vision, who in his World Space Vision-2050 had envisaged space faring nations joining hands to find solutions to mankind's major problems such as natural disasters, energy and water scarcity, health-care education issues and weather prediction.

**37. (a) Cartosat-2 Series Satellite is the primary satellite carried by PSLV-C38. This remote sensing satellite is similar in configuration to earlier satellites in the series with the objective of providing high-resolution scene specific spot imagery.**

The imagery sent by satellite will be useful for cartographic applications, urban and rural applications, coastal land use and regulation, utility management like road network monitoring, water distribution, creation of land use maps, change detection to bring out geographical and manmade features and various other Land Information System (LIS) as well as Geographical Information System (GIS) applications.

**38. (d) BeiDou Navigation Satellite System (BDS)**

It is a Chinese satellite navigation system.

It consists of two separate satellite constellations – a limited test system that has been operating since 2000, and a full-scale global navigation system that is currently under construction.

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The second generation of the system, known as COMPASS or BeiDou-2, will be a global satellite navigation system consisting of 35 satellites.

Applications: Fast positioning, communication security, bi-directional digital short-message communication and precise timing which include features of safety, accuracy, all weather and versatility.

**40. (d) CCTNS Project**

It aims to deliver various web based police related services to citizens.

It facilitates a pan-India search of crime and criminal records of individuals through a national database.

It generates crime and criminal reports at the state and central level to inform policy interventions and computerise police processes.

In 2015, an additional objective of establishing a basic platform for an Inter-operable Criminal Justice System (ICJS) was added to the Project.

**41. (a) SWIFT stands for the Society for Worldwide Interbank Financial Telecommunications. It is a messaging network that financial institutions use to securely transmit information and instructions through a standardized system of codes.**

**42. (b) C-DOT (Centre for Development of Telematics) has developed CCSP (C-DOT Common Service Platform), the one M2M standards compliant common service platform which can be deployed on any off-the-shelf generic server platforms or cloud infrastructure.**

The smart cities can reap all the benefits of using a standards compliant horizontal service layer using the CCSP platform from C-DOT. Thus they can be more efficient, economical and future proof.

**45. (b) Aarambh app**

The Union Ministry of Rural Development has launched it for road maintenance.

It was launched for performance based maintenance contracting and community contracting for maintenance of rural roads.

It aims at use of GIS based mapping for making road inventories, condition surveys,

and producing cost estimates and other relevant data for preparation and monitoring of annual road maintenance plans.

Its usage would greatly enhance the service delivery of the state level institutions in planning and implementing performance based rural roads maintenance contracts.

**46. (c) Aadhaar is a 12-digit unique number issued by the Unique Identification Authority of India (UIDAI) provided to all citizens of India. The number will be stored in a centralized database and linked to the basic demographics and biometric information – photograph, ten fingerprints and iris – of each individual.**

**48. (a) Kerala has made phenomenal progress in the Information Technology sector having 100% mobile density, 75% e- literacy, maximum digital banking, broadband connections, e- district project in all 14 Districts linking Aadhar card and bank account have laid a strong foundation for digital Kerala.**

Based on these indicators, Kerala has been declared to be a completely digital state. Kerala is known to be the land of India's largest software infrastructure parks.

**49. (b) Digital Evolution Index 2017**

It is prepared by the Fletcher School at Tufts University in partnership with Mastercard.

It is a comprehensive research that tracks the progress countries have made in developing their digital economies and integrating connectivity into the lives of billions.

It measures four key drivers – supply, consumer demand, institutional environment, and innovation.

It maps the development of 60 countries, demonstrating their competitiveness and market potential for further digital economic growth.

**50. (a) Wi-Fi is more secure than Bluetooth. Unlike Wi-Fi, which uses wireless access devices that connect clients, each Bluetooth device is an access point itself.**

The potential for abuse is a lot greater for Bluetooth than for Wi-Fi, as every Bluetooth device is a potential entry point to the local network. Wi-Fi works at 2.45, 3.6 and 5

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GHz frequencies; while Bluetooth works only at 2.45 GHz. Bluetooth consumes less power than Wi-Fi.

53. (d) China has launched the world's first satellite dedicated to testing the fundamentals of quantum communication in space.

QUESS is designed to establish 'hack-proof' quantum communications by transmitting un-crackable keys from space to the ground. It is nicknamed as Micius.

54. (c) It is a term which refers to the application of engineering systems and modern technologies in human biology to function like living organisms or parts of living organisms.

In other words, it comprises of artificial body parts that enhances or substitutes for a natural biological capability.

Prosthetic limb is an important outcome of Bionics technology. It replaces the external organs which become nonfunctional due to accidents.

55. (a) Quantum Computing

It is a computational method based on the quantum states of matter. In this type of computing, the minute particles like atoms and molecules are used in place of silicon in classical computers.

It can be used in DNA analysis in medicine, big data, and weather predictions with complicated models and has a great potential due to increasing innovation and research like DNA computing.

56. (d) Holographic Versatile Disc (HVD)

It is an optical disc technology which can store up to several terabytes of data on an optical disc. It has reduced radius of the disc, the cost involved and the amount of materials used.

It works on a technique known as collinear holography in which a green and red laser beam is collimated in a single beam.

Blu-ray Disc

It means blue laser used to read the disc, which allows information to be stored at a greater density than is possible with the longer-wavelength red laser used for DVDs.

It is a digital optical disc data storage format and was designed to replace the DVD format.

Blue ray disc is capable of storing large number of videos (lengthy) in high-definition and ultra-high-definition resolution.

57. (b) Organic computing

It is defined as the type of computing that behaves and interacts with humans in an organic manner.

The term organic means the system's behavior, and does not imply that it is constructed from organic materials. It is related to act more independently, flexibly, and autonomously, i.e. to exhibit life like properties.

The objective is to construct robust, safe, flexible, and trustworthy systems with a strong orientation towards human needs as opposed to a pure implementation of the technology.

58. (c) Internet Society

It is an organization governed by a diverse Board of Trustees with the aim to ensure that the Internet stays open, transparent and defined by the people of the world.

It is the world's trusted independent source of leadership for Internet policy, technology standards, and future development.

It facilitates open development of standards, protocols, administration, and the technical infrastructure of the Internet.

It promotes professional development and builds community to foster participation and leadership in areas important to the evolution of the Internet.

59. (b) Online Registration System (ORS) is a framework to link various hospitals across the country for Aadhaar based online registration and appointment system, where counter based OPD registration and appointment system through Hospital Management Information System (HMIS) has been digitalized.

The application has been hosted on the cloud services of NIC.

61. (a) Bharat QR Code

The QR code has been developed by National Payment Corporation of India (NPCI).

It is a common QR code built for ease of payments.

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It is a standard that will support Visa, Master card and Rupay cards for wider acceptance.

It will enable the merchants to accept digital payments without the Point of Sale (PoS) swiping machine.

QR code is a two dimensional machine readable code made up of black and white squares.

It used for storing URLs or other information. These can be read by camera of a Smartphone.

When it is scanned on Smartphone, all the black and white squares are converted into a URL or connects it to a website.

It can handle all types of data, such as numeric and alphabetic, Kanji, Kana, Hiragana, symbols, binary, and control codes.

Up to 7,089 characters can be encoded in one symbol and QR Code has error correction capability.

A code word is a unit that constructs the data area. In the case of QR Code, one code word is equal to 8 bits.

QR Codes can be used for printed matters such as fliers and name cards, payment system, business purposes and in logistics operations.

- 62. (a)** ICT 2025 is about setting up core IT infrastructure and process to consolidate multitude of election processes and functions.

Digitalization is the key strategy in ICT 2025. It is the strategy of adopting recent technologies and consolidating existing technologies in IT to make the most of the digital resources available in the Election ecosystem.

- 64. (c)** GPRS, EDGE, HSPA, LTE is associated with mobile internet coverage/speed.

- 65. (a)** Global Innovation Index (GII) 2016 has been released. It is published by Cornell University, INSEAD, and the World Intellectual Property Organization, in partnership with other organizations and institutions.

- 66. (c)** The All India Radio (AIR) during the Bangladesh Liberation Movement in 1971 had launched AkashvaniMaitree, a Bangla

radio service. However, it was discontinued in 2010.

AkashvaniMoitree Channel is an initiative of Kolkata Akashvani Kendra. It will provide a platform for blending content both from India and Bangladesh and preserving Bengali culture.

- 67. (b)** PARAM-ISHAN

It is a supercomputing facility at IIT, Guwahati and has the power of 250 Teraflops and three hundred tera bites capacity.

It can be used in the application areas like Computational Chemistry, Computational Fluid Dynamics, Computational Electromagnetic, Civil Engineering Structures, Nano-block Self Assemble, Optimization etc.

It can be used for Weather, climate modeling and seismic data processing.

It is developed by C-DAC and IIT Guwahati.

- 68. (b)**

Mining Surveillance System (MSS)

It is a satellite-based monitoring system, which aims to check illegal mining activity through automatic remote-sensing detection technology.

The Indian Bureau of Mines, on behalf of the mines ministry, has developed MSS, in co-ordination with the Bhaskaracharya Institute for Space Applications and Geoinformatics (BISAG), Gandhinagar, and the Ministry of Electronics and Information Technology (MEITY).

It checks 500 meters around the existing mining lease boundary to search for any unusual activity relating to illegal mining. Any discrepancy is flagged off as a trigger.

- 69. (d)** The Government of India has launched "VittiyaSakshartaAbhiyan" to promote active participation of youth of Higher Educational Institutions to motivate all payers and payees to be embrace cashless economic system for transfer of funds.

The primary aim is to mobilise youth and faculty to promote digital literacy and awareness among people around them who have been technologically averse.

- 70. (c)** China has launched its first fully- owned overseas satellite ground station near the North Pole which could enable Beijing to collect satellite data anywhere on the Earth

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at a speed it said was the fastest in the world.

The facility, located in Sweden would allow China to collect satellite data anywhere on Earth at speeds that were more than twice as fast as before.

The new facility would play an important role in China's Gaofen project-a network of observation satellites orbiting the Earth to provide global surveillance capabilities-which was due to be completed in 2020.

71. (b) It is a forum for multi-stake holders dialogue on public policy issues related to internet governance.

India hosted IGF in 2008 (Hyderabad).

73. (c) CSC programme is an initiative of the Ministry of Electronics & IT (MeitY), Government of India. CSCs are the access points for delivery of various electronic services to villages in India, thereby contributing to a digitally and financially inclusive society.

CSCs are more than service delivery points in rural India. They are positioned as change agents, promoting rural entrepreneurship and building rural capacities and livelihoods. They are enablers of community participation and collective action for engendering social change through a bottom-up approach with key focus on the rural citizen.

74. (d) What is FASTag?

It is a device that uses Radio Frequency Identification (RFID) technology for making toll payments directly from the prepaid account linked to it.

It is affixed on the windscreen of the vehicle and enables to drive through toll plazas without waiting as for a cash transaction.

The tag has a validity of 5 years and after purchase, it only needs to be recharged or topped up.

80. (d) Meghraj is the name given to the initiative of Government of India for its new program which is going to take advantage of the Cloud Computing.

It enables the government to leverage cloud computing for effective delivery of e-services.

81. (d) Near Field Communications (NFC) is a short-range wireless connectivity technology that provides intuitive, simple and safe communication between electronic devices. Communication occurs when two NFC-

compatible devices are brought within four centimeters of each other. Data transfer speed is slower in NFC than broad band network.

83. (d) My Gov aims to establish a link between Government and Citizens towards meeting the goal of good governance.

Jeevan Pramaan is an Aadhaar based Biometric Authentication System for Pensioners.

E-Taal is a portal for dissemination of statistics related to electronic transactions under national and state level e-governance projects including MMPs.

84. (a) 'e-pashuhaat' portal

1. Under the scheme National Mission on Bovine Productivity, 'e-pashuhaat' portal has been developed for connecting breeders and farmers regarding availability of bovine germplasm, for the first time in the world.

2. It is the E-Trading Market portal for livestock germplasm and additional related services and will connect farmers with breeders – Central, State, Co-operative, Milk Federations, and private agencies.

86. (b) National Programme on Technology Enhanced Learning (NPTEL)

It provides e-learning through online Web and Video courses

It is joint initiative of the IITs and IISc

It is funded by the Ministry of Human Resource Development

88. (a) It addresses common man's grievances, and simultaneously monitoring and reviewing important programmes and projects of the Government of India as well as projects flagged by State Governments.

89. (a) It provides online procurement of Goods & Services of common use required by various Government Department and is under Commerce and Industry ministry.

94. (a) It is launched by Vishakhapatnam Municipal Corporation.

95. (c) BHIM app

1. BHIM stands for Bharat Interface for Money, a digital app on the Unified Payment Interface (UPI).

2. UPI, a platform created by the National Payments Corporation (NPCI) to facilitate faster and smoother digital payments.

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3. It acts as an aggregator for all UPI-based offerings of banks. Till date, each bank has come out with its own mobile banking app and gone live on UPI. But now, the NPCI through BHIM created a front-end app.
96. (b) GSAT-18 provides telecommunications services. It would strengthen ISRO's present fleet of 14 operational telecom satellites. It carries Ku-band beacon to help in accurately pointing ground antennas towards the satellite.
- GSAT-18 has successfully been launched from Arianespace's European launcher Ariane-5 VA-231 in French Guiana.
  - The satellite carries 48 communication transponders in C-band, upper extended C-band and Ku-band for providing various services to the country.
  - Television, telecommunication, VSAT and digital satellite news gathering are a few of the services that GSAT 18 will support in coming days. The GSAT-18 has been placed in a Geosynchronous Transfer Orbit (GTO). The designed in orbit operational life is around 15 years.
97. (a) Google Tez is a mobile wallet based on the Unified Payments Interface (UPI) platform built by the National Payments Corporation of India (NPCI). UPI-enabled wallets permit users to transfer money without requiring the bank account details of the recipient. The UPI ID of the recipient is used as a proxy for the account number and IFSC code, thereby simplifying the process of money transfer.
98. (b) Ministry of Human Resource Development has decided to conduct an annual web-based All India Survey on Higher Education (AISHE) since 2010-11.
- The main aim of this survey is to portray the status of higher education in the country. It covers all the Institutions in the country engaged in imparting of higher education. Data is being collected on several parameters such as teachers, student enrolment, programmes, examination results, education finance, and infrastructure.
99. (a) BOSS stands for Bharat Operating System Solutions. It is a GNU/Linux distribution developed by C-DAC, Chennai in order to benefit the usage of Free and Open Source Software in India
- E-learning is basically the delivery of learning via the internet. One of the best open source online learning systems is Moodle.
100. (b) The National e-Governance Plan
- It is an initiative of the Government of India to make all government services available to the citizens of India via electronic media. The aim is to bring public services closer home to citizens.
- It has been formulated by the Department of Information Technology (DIT) and Department of Administrative Reforms & Public Grievances (DAR&PG).

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