

Q1 Answer: C

Explanation:

Bhuvan Ganga App is ISRO's mobile application developed to enable public to collect and report information on various pollution sources that affects the water quality of river Ganga. This mobile app will provide a platform for crowd sourcing to monitor pollution in river Ganga and enable decision makers at National Mission for Cleaning Ganga (NMCG) under Ministry of Water Resources, River Development & Ganga Rejuvenation, and Government of India to prioritize interventions.

Q2 Answer: A

Explanation:

- **Voice over Long-Term Evolution (VoLTE)** is a standard for high-speed wireless communication for mobile phones and data terminals.
- This means that **there is no dependency on** (or ultimately, requirement for) the legacy circuit-switched voice network to be maintained.
- VoLTE has up to **three times more voice** and data capacity than 3G UMTS and up to six times more than 2G GSM
- 4G LTE-enabled technology that significantly improves the clarity of voice calls using Internet data.

Q3 Answer: D

Explanation:

- Artificial Intelligence is a way of making a computer, a computer-controlled robot, or a software think intelligently, in the similar manner the intelligent humans think.
- AI is accomplished by studying how human brain thinks, and how humans learn, decide, and work while trying to solve a problem, and then using the outcomes of this study as a basis of developing intelligent software and systems.

Q4 Answer: C

Explanation:

A hyperloop is a proposed mode of passenger and/or freight transportation, first named as such in an open-source vactrain design released by a joint team from Tesla and SpaceX. Drawing heavily from Robert Goddard's vactrain, a hyperloop comprises a sealed tube or system of tubes through which a pod may travel free of air resistance or friction conveying people or objects at optimal speed and acceleration

Q5 Answer: D

Explanation:

Google is reportedly launching a Unified Payments Interface (UPI)-based digital payment service called “Tez” as early as next week.

Q6 Answer: B

Explanation:

Aerogel is a synthetic porous ultralight material derived from a gel, in which the liquid component of the gas has been replaced with a gas. The result is a solid with extremely low density and low thermal conductivity

Q7 Answer: A

Explanation:

Hortinet is an INTEGRATED TRACEABILITY SYSTEM developed by APEDA for providing Internet based electronic services to the stakeholders for facilitating farm registration, testing and certification of Grape, Pomegranate and Vegetables for export from India to the European Union in compliance with standards.

- Traceability is a way of responding to potential risks that can arise in food and feed, to ensure that all food products in the EU are safe for European citizens to eat.
- It is vital that when national authorities or food businesses identify a risk they can trace it back to its source in order to swiftly isolate the problem and prevent contaminated products from reaching consumers.
- In addition, traceability allows targeted withdrawals and the provision of accurate information to the public, thereby minimizing disruption to trade.

Q8 Answer: C

Explanation:

The Internet of Things (IoT) is the inter-networking of physical devices, vehicles (also referred to as "connected devices" and "smart devices"), buildings, and other items embedded with electronics, software, sensors, actuators, and network connectivity which enable these objects to collect and exchange data.

Q9 Answer: A

Explanation:

AMOLED (active-matrix organic light-emitting diode) is a display technology used in smart watches, mobile devices, laptops, and televisions. OLED describes a specific type of thin-film-display technology in which organic compounds form the electroluminescent material

Q10 Answer: A

Explanation:

UMANG (Unified Mobile Application for New-Age Governance) is one of the key initiatives under the Digital India program to develop a common, unified platform and mobile app to facilitate a single point of access to all government services. Its primary aim is to abridge inconvenience faced by users in managing multiple mobile apps and facilitate a one-stop-solution to avail varied government services

Q11 Answer: C

Explanation:

Scientists have developed a super strong, flexible Bio-glue for wound healing without causing toxicity. It has been inspired by an adhesive material (glue) secreted by slugs that sticks to biological tissues. The bio-glue is double-layered hydrogel consisting of an alginate-polyacrylamide matrix supporting an adhesive layer that has positively-charged polymers protruding from its surface

Q12 Answer: B

Explanation:

With IoT, objects, animals or people are provided with unique identifiers and the ability to transfer data over a network without human-to-human or human-to-computer interaction.

Q13 Answer: D

Explanation:

Security is one of the main concerns of M2M. If a breach occurs, the machine can be compromised, affecting shipping or even the chemical makeup of products.

Q14 Answer: C

Explanation:

- Catfishing is a type of deceptive activity involving a person creating a sock puppet social networking presence for nefarious purposes.
- Cramming is a form of fraud in which small charges are added to a bill by a third party without the subscriber's consent or disclosure.
- A click farm is a form of click fraud, where a large group of low-paid workers are hired to click on paid advertising links for the click fraudster.

Q15 Answer: A

Explanation:

Grey goo is a hypothetical end-of-the-world scenario involving molecular nanotechnology in which out-of-control self-replicating robots consume all biomass on Earth while building more of themselves, a scenario that has been called *ecophagy* ("eating the environment", more literally "eating the habitation"). The original idea assumed machines were designed to have this capability, while popularizations have assumed that machines might somehow gain this capability by accident.

Q16 Answer: A

Explanation:

Using newly calibrated data taken from NASA's Moon Mineralogy Mapper, which flew aboard India's Chandrayaan-1 spacecraft, scientists have created the first global map of water in the Moon's soil.

Q17 Answer: B

Explanation:

The Union Ministry of Earth Sciences (MoES) has launched two Mobile apps – India Quake and Sagar Vani to send alerts on earthquake parameters and oceanic disturbances. The ‘India Quake’ will automatically disseminate earthquake parameters like location, time and magnitude, after the occurrence of earthquakes

Q18 Answer: B

Explanation:

Aircraft that combine the features of an aeroplane and a helicopter and are popular among the rich and famous in Europe and the United States.

Q19 Answer: A

Explanation:

The Committee was constituted under chairmanship of former Home Secretary Madhukar Gupta in April 2016. It was tasked give recommendations for strengthening border protection and addressing the issue of gaps and vulnerability in border fencing along India-Pakistan Border.

Q20 Answer: C

Explanation:

CARB-X is a public-private international partnership set up in 2016 to focus on innovations to improve diagnosis and treatment of drug-resistance infection . It had grown out of US President Barack Obama’s 2015 Combating Antibiotic Resistant Bacteria (CARB) initiative.

Q21 Answer: C

Explanation:

- Employs the principles of quantum mechanics to store information in ‘qubits’ instead of the typical ‘bits’ of 1 and 0.
- Qubits work faster because of the way such circuits are designed, and their promise is that they can do intensive number-crunching tasks much more efficiently than the fastest comparable computers.
- Internationally, Canada’s D-Wave Systems, is a pioneer in developing quantum computers and has sold machines to Lockheed Martin and Google.

Q22 Answer: B

Explanation:

Hyperspectral imaging means analysing extremely detailed images of an object to the scale of nanometres and then reconstructing its constituent elements.

Using custom-developed algorithms, satellite-images, or those taken from low flying planes or drones, can be used to calculate the proportion of nitrogen, potassium and phosphorous, the three most vital nutrients as well as other minerals in the soil and be used to gauge its health

Q23 Answer: D

Explanation:

Imagine going to the grocery store, filling up your cart and walking right out the door. No longer will you have to wait as someone rings up each item in your cart one at a time. Instead, these RFID tags will communicate with an electronic reader that will detect every item in the cart and ring each up almost instantly.

- An RFID tag serves the same purpose as a barcode and the magnetic strip behind your credit card: it provides for unique identification ('fingerprint') of the object to which the tag is affixed to. But its advantages over barcodes (statements 2 and 3) enables it to be used for a wide variety of applications.
- Bar code is a read-only technology, meaning that it cannot send out any information. RFID tags are an improvement over bar codes because the tags have read and write capabilities. Data stored on RFID tags can be changed, updated and locked.

