



DAILY QUIZ AUGUST-2017  
ENERGY

**Q1.Ans: C**

Explanation:

Thermal Power is the largest source of power in India followed by renewable energy, Hydroelectricity and Nuclear energy

**Q2.Ans: C**

The programme encourages installation of rooftop solar photovoltaic power generation plant for self-consumption as well as supply/sale of electricity to the grid.

The grid-interactive rooftop system can work on net metering basis wherein the beneficiary pays to the utility on net meter reading basis only.

Ideally, grid interactive systems do not require battery back-up as grid acts as the back-up for feeding excess solar power and vice-versa.

**Q3.Ans: C**

Net metering is a billing mechanism that credits solar energy system owners for the electricity they add to the grid. For example, if a residential customer has a PV system on the home's rooftop, it may generate more electricity than the home uses during daylight hours.

**Q4.Ans: B**

3Ds, which today's global engagements need to focus their energy upon. These are –

- a common shared goal of De-carbonization of the energy space;
- to look at more Decentralization of energy space; and
- more and more Digitalization of the energy space.

**Q5.Ans: D**

Vitrification is storage of nuclear waste, graphite rods used to absorb neutrons KAMINI is cooled and moderated by light water, and fueled with uranium-233 metal produced by the thorium fuel cycle harnessed by the neighbouring FBTR(fast breeding) reactor.

**Q6.Ans: B**

No energy losses because of zero resistance to electricity superconductors exhibit the Meissner effect in which they cancel all magnetic flux inside the material, becoming perfectly diamagnetic

**Q7.Ans: D**

Lithium mineral is very scarce in India, which is back bone of achieving the electrical vehicle substitution. Present policy is very ambitious but failed to mention about the mobilization of investment and subsidies.

These are new technology and costly in initial period.

**Q8.Ans: A**

It causes global warming by absorbs sunlight and thereby heating its surroundings. It also causes breathing disorders which is nothing but affecting the **lungs. It also hasten ice sheet melting.**

**Q9.Ans: D**

- It is formed through the incomplete combustion of fossil fuels, biofuel, and biomass

**Q10.Ans: C**

- Energy Efficiency Services Limited, a joint venture of PSUs under the Ministry of Power, to execute work
- Currently, EESL is the implementation agency for the Buildings Energy Efficiency Programme, which was launched in May 2017 by Minister of State (IC) FOR Power , Coal , Mines & New & Renewable Energy

Government also launched

The National LED Programme

To facilitate rapid adoption of LED based home and street lighting across the country. The programme components, Unnat Jeevan by Affordable LEDs and Appliances for All (UJALA) and Street Lighting National Programme (SNLP) of EESL are currently under implementation in 29 States and 7 Union Territories.

**Q11.Ans: D**

LED is long-lasting and extremely energy-efficient, but they provide only directional light, not diffused light. Because of this, these are widely used in all signal related lights so that one can see even from a long distance.

**Q12.Ans: A**

India has many coal fields and if we can effectively utilize these to produce the coalbed methane then our energy dependence on the other sources can be reduced in the future.

**Q13.Ans: C**

The Indian Institute of Petroleum (IIP), established in 1960, is one of the constituent laboratories of the Council of Scientific and Industrial Research (CSIR), dedicated to R&D in the hydrocarbon sector

A state-owned enterprise in India is called a Public Sector Undertaking (PSU) or a Public Sector Enterprise. These companies are owned by the union government of India, or one of the many state or territorial governments, or both.

Bharat Heavy Electricals Limited

Coal India Limited

GAIL (India) Limited

Indian Oil Corporation Limited

NTPC Limited

Oil & Natural Gas Corporation Limited

Steel Authority of India Limited

**Q14.ans: D**

Explanation:

The 2017 ECBC is an update of the Code first introduced in 2007. It compares very favourably with international best practices. If implemented correctly, it could make new buildings producers of electricity rather than simply consuming energy, according to the Green Business Certification Institute, USA. In order for a building to be considered ECBC-compliant, it would need to demonstrate minimum energy savings of 25%.

**Q15.ans: A**

Explanation:

A solar cell, or photovoltaic cell (previously termed "solar battery"), is an electrical device that converts the energy of light directly into electricity by the photovoltaic effect, which is a physical and chemical phenomenon. It is a form of photoelectric cell, defined as a device whose electrical characteristics, such as current, voltage, or resistance, vary when exposed to light. Solar cells are the building blocks of photovoltaic modules, otherwise known as solar panels.

The top installers of 2016 were China, the United States, and India. There are more than 24 countries around the world with a cumulative PV capacity of more than one gigawatt. Austria, Chile, and South Africa, all crossed the one gigawatt-mark in 2016.

**Q16. Ans D**

the Cochin International Airport Limited (CIAL) became the first airport in the world, to be completely powered by solar energy

**Q17. Ans C**

Shale gas is not a renewable energy source as its deposits will deplete with time

**Q18. Ans: C**

Explanation:

Constituents--Consists mainly of Propane and Butane

Source--Obtained from natural gas-and-condensate wells, oil wells, coal bed methane wells.

**Q19.Ans: C**

Explanation:

Releases CO<sub>2</sub> which is a greenhouse gas but is cleaner when compared to gasoline.

**Q20.Ans: D**

Piped supply of gas in towns would be cheaper than distribution via cylinders. Composite cylinders would lower costs, as compared to steel ones. Sphere and cylinder shapes produce less force in the walls respectively, for same inside pressure compared to other shapes. But cylinder is more convenient to use than sphere as a transport medium

**Q21.Ans: D**

Explanation:

- not methanol but ethanol used for intoxicants preparation
- used in solvents and fuels, it is primarily used to make other chemicals.

**Q22.Ans: C**

Explanation:

Methanol can be produced from natural gas, coal and renewable sources such as municipal waste, biomass and recycled carbon dioxide.

**Q23.Ans: A**

Explanation:

Advantages of Methanol

- It is clean, cheaper than fossil fuels and a good substitute for heavy fuels. Will help India use its vast reserves of coal. Can reduce the petroleum imports.