



Daily Current Affairs Prelims Quiz 29-05-2021 - (Online Prelims Test)

1) Which of the statements given below regarding *GST Council* is *incorrect*?

- a. One-half of the total number of members of GSTC form quorum in meetings of GSTC
- b. Decision in GSTC are taken by a majority of not less than three-fourth of weighted votes cast
- c. Centre has one-third weightage of the total votes cast and all the states taken together have two-third of weightage of the total votes cast
- d. None of the above

Answer : d

- The 43rd GST Council has recently met under the Chairmanship of Union Finance Minister Smt. Nirmala Sitharaman through video conferencing.

GST Council

- The Goods and Services Tax (GST) is governed by the GST Council.
- Article 279 (1) of the amended Indian Constitution states that the GST Council has to be constituted by the President within 60 days of the commencement of the Article 279A.
- According to the article, GST Council will be a joint forum for the Centre and the States.
- GST Council is an apex member committee to modify, reconcile or to procure any law or regulation based on the context of goods and services tax in India.
- The GST Council dictates tax rate, tax exemption, the due date of forms, tax laws, and tax deadlines, keeping in mind special rates and provisions for some states.

It consists of the following members:

1. The Union Finance Minister, (the Chairperson)
2. As a member, the Union Minister of State will be in charge of Revenue of Finance
3. The Minister in charge of finance or taxation or any other Minister nominated by each State government, as members.

Forum

- One-half of the total number of members of GSTC form quorum in meetings of GSTC.
- Decision in GSTC are taken by a majority of not less than three-fourth of weighted votes cast.
- Centre has one-third weightage of the total votes cast and all the states taken together have two-third of weightage of the total votes cast.
- All decisions taken by the GST Council has been arrived at through consensus. The option of exercising a vote has not been resorted to till date.

2) Consider the following statements with respect to *National AI Portal (INDIAai)*

1. It serves as a central hub for AI related news, learning, articles, events and activities etc., in India and beyond.
2. It is a joint initiative of National e-Governance Division (NeGD), Ministry of Electronics and IT

(MeitY), and NASSCOM.

Which of the statement(s) given above is/are correct?

- a. 1 only
- b. 2 only
- c. Both 1 and 2
- d. Neither 1 nor 2

Answer : c

- *The National AI Portal has recently celebrated its first anniversary in a virtual event attended by nearly 400 participants and dignitaries.*

National Artificial Intelligence Portal

- This portal has been jointly developed by the Ministry of Electronics and Information Technology and IT Industry.
- National e-Governance Division of Ministry of Electronics and IT and NASSCOM from the IT industry will jointly run this portal.
- This portal shall work as a one stop digital platform for AI related developments in India, sharing of resources such as articles, startups, investment funds in AI, resources, companies and educational institutions related to AI in India.
- The portal will also share documents, case studies, research reports etc.
- It has section about learning and new job roles related to AI.

3) Consider the following statements with respect to YUVA- Prime Minister's Scheme for Mentoring Young Authors

1. It is an author mentorship programme to train young and budding authors' below 30 years of age.
2. It was launched by the Department of Higher Education, Ministry of Education.
3. The National Book Trust, India is the implementing agency and responsible for the phase-wise execution of the Scheme.

Which of the statement(s) given above is/are correct?

- a. 3 only
- b. 1 and 2 only
- c. 1, 2 and 3
- d. None of the above

Answer : c

- *The Ministry of Education has recently launched 'YUVA- Prime Minister's Scheme for Mentoring Young Authors'.*

YUVA - Prime Minister's Scheme for Mentoring Young Authors

- It is an author mentorship programme to train young and budding authors below the age of 30.
- Those who are interested to write on themes such as national movement, unsung heroes, freedom fighters can register themselves at mygov.in.
- These books will be launched on National Youth Day (January 12, 2022).
- The winner will also get a scholarship worth Rs. 50,000 per month for a period of six months.
- The National Book Trust, India under the Ministry of Education as the Implementing Agency will ensure phase-wise execution of the Scheme.
- The books prepared under this scheme will be translated into other Indian languages.

4) *Thitu* or *Pag-asa Island*, sometimes seen in the news recently, is located in which of the following regions?

- a. Yellow Sea
- b. Arabian Sea
- c. South China Sea
- d. Mediterranean Sea

Answer : c

- The Philippines has protested China's continuing illegal presence and activities near Thitu Island in the **South China Sea**.
- Thitu, known as Pag-asa in the Philippines, is the biggest of the eight reefs, shoals and islands it occupies in the Spratly archipelago.
- The Pag-asa Islands is an integral part of the Philippines over which it has sovereignty and jurisdiction.
- China has built a mini-city with runways, hangars and surface-to-air-missiles in the Subi Reef about 25 km from Thitu.

5) Consider the following statements

1. A person to be elected to legislative council/assembly must be an elector for a assembly constituency in that state.
2. A person contesting election to Rajya Sabha from a particular state should be an elector in that particular state.

Which of the statements given above is/are correct?

- a. 1 only
- b. 2 only
- c. Both 1 and 2
- d. Neither 1 nor 2



Answer : a

- As per article 84 of the constitution, a person is qualified to be a member of parliament provided he is a citizen of India.
- Has completed 30 years of age in case of Rajya Sabha and 25 years in case of Lok Sabha.
- Possesses such other qualifications as may be prescribed in that behalf by or under any law made by Parliament.
- The third condition above led the parliament to include other qualifications for MPs in the Representation of People Act (1951).
- These qualifications are as follows: Only an elector can be elected.
- Thus, the candidate must be registered as a voter in a parliamentary constituency and must be eligible to vote.
- If due to any reason the person loses eligibility to vote, he would lose eligibility to contest also.
- For example if a person is jailed or in lawful detention at the time of elections, he shall not be eligible for voting.
- However, if a person is in preventive custody, he can vote.
- These define if a person is able to contest for election of MP or not. It is not necessary that a person should be registered as a voter in the same constituency.
- This is applicable for both Lok Sabha and Rajya Sabha.
- A person from reserved category only can contest election if the Lok Sabha seat is reserved for these categories.
- However, an SC/ST person can contest election on an unreserved seat also.

6) Consider the following statements with respect to *NASA-ESA Solar Orbiter Spacecraft*

1. It was selected as the first medium-class mission of ESA's Cosmic Vision 2015-2025 Programme.
2. It has captured the first solar eruption on the Sun's surface, known as coronal mass ejections (CME).
3. It is the first mission that will provide images of the sun's north and south poles.

Which of the statement(s) given above is/are correct?

- a. 1 and 2 only
- b. 1 and 3 only
- c. 2 and 3 only
- d. 1, 2 and 3

Answer : d

NASA-ESA Solar Orbiter Spacecraft

- Solar Orbiter is a space mission of international collaboration between ESA (European Space Agency) and NASA.
- This is the first mission that will provide images of the sun's north and south poles using a suite of six instruments on board that will capture the spacecraft's view.
- It is a seven-year mission and will come within 26 million miles of the sun.
- It will be able to brave the heat of the sun because it has a custom titanium heat shield coated in calcium phosphate so that it can endure temperatures up to 970 degrees Fahrenheit.
- Solar Orbiter follows the Ulysses spacecraft, another collaboration between ESA and NASA that launched in 1990.
- Solar Orbiter will set about answering four top-level science questions:
 1. What drives the solar wind and where does the coronal magnetic field originate from?
 2. How do solar transients drive heliospheric variability?
 3. How do solar eruptions produce energetic particle radiation that fills the heliosphere?
 4. How does the solar dynamo work and drive connections between the Sun and the heliosphere?

7) Consider the following statements with respect to *17+1 Initiative*

1. It aims to expand cooperation between Central Asian Union (CAU) and the ASEAN member countries.
2. It focuses on infrastructure projects such as bridges, motorways, railway lines and modernisation of ports in the member states.

Which of the statement(s) given above is/are *incorrect*?

- a. 1 only
- b. 2 only
- c. Both 1 and 2
- d. Neither 1 nor 2

Answer : a

17+1 Initiative

- The 17+1 initiative is a China-led format founded in 2012 in Budapest with an aim to expand cooperation between Beijing and the Central and Eastern European (CEE) member countries, with investments and trade for the development of the CEE region.
- The framework also focuses on infrastructure projects such as bridges, motorways, railway lines and modernisation of ports in the member states.

- The platform is largely seen as an extension of China's flagship Belt and Road initiative (BRI).
- China's narrative towards the 17+1 initiative is about improving its relations with the European countries that are less developed as compared to the Western European states.
- The initiative includes twelve EU member states and five Balkan states — Albania, Bosnia and Herzegovina, Bulgaria, Croatia, Czech Republic, Estonia, Greece, Hungary, Latvia, Lithuania, Macedonia, Montenegro, Poland, Romania, Serbia, Slovakia and Slovenia.
- Recently Lithuania has quit China's 17+1 cooperation forum with central and eastern European states that includes other EU members.
- It has also urged fellow EU members to pursue "a much more effective 27+1 approach and communication with China."

8) Which of the following statement(s) is/ are correct with respect to *Lightning Phenomenon*

1. Lightning is an electrical discharge caused by imbalances between storm clouds and the ground, or within the clouds themselves.
2. During lightning the electric potential (voltage) is highest at the point of the strike, and decreases with distance along the direction of the flow

Select the correct answer using the codes given below:

- a. 1 only
- b. 2 only
- c. Both 1 and 2
- d. Neither 1 nor 2

Answer : c

Lightning Phenomenon

- Lightning is an electrical discharge caused by imbalances between storm clouds and the ground, or within the clouds themselves.
- Lightning is extremely hot i.e. a flash can heat the air around it to temperatures five times hotter than the sun's surface.
- The heat causes surrounding air to rapidly expand and vibrate, which creates the peeling thunder we hear a short time after seeing a lightning flash.
- The cloud-to-ground lightning bolts are a common phenomenon i.e. about 100 strike Earth's surface every single second.
- Lightning's extreme heat will vaporize the water inside a tree, creating steam that may blow the tree apart.
- The chances of getting directly struck by lightning highly depend on the vicinity because the tallest objects in the vicinity attract the lightning.
- The elephants would potentially have a higher chance of getting struck by lightning compared to other species because of their height.
- Since an elephant's front and hind feet are wide apart, it would appear to make it more vulnerable than a smaller animal, such as a rat.

9) Which of the following statement(s) is/ are *incorrect* with respect to *Semi-conductors*

1. It can be made of pure elements, such as silicon or germanium, or compounds such as gallium arsenide or cadmium selenide.
2. It is formed due to ionic bonding and has eight valence electron in its outermost orbit.

Select the correct answer using the codes given below:

- a. 1 only
- b. 2 only
- c. Both 1 and 2

d. Neither 1 nor 2

Answer : d

Semi-conductors

- Semiconductors are materials which have a conductivity between conductors (generally metals) and non-conductors or insulators (such as most ceramics).
- It conducts electric current less than conductor and greater than insulator
- It has four valence electron in its outermost orbit and are formed due to covalent bonding.
- Valence and conduction bands are separated by forbidden energy gap of 1.1eV
- It has high resistance and has negative temperature coefficient.
- Insulators are formed due to ionic bonding and has eight valence electron in its outermost orbit.
- A semiconductor chip is an electric circuit with many components such as transistors and wiring formed on a semiconductor wafer.
- An electronic device comprising numerous of these components is called Integrated Circuit (IC), and can be found in electronic devices such as computers, smartphones, appliances, gaming hardware and medical equipment.
- These devices find widespread use in almost all industries, especially in the automobile industry.
- Recently, an unusual shortage of inputs, especially semiconductor chips, has made India-based vehicle manufactures (car manufactures and premium bikes) curtail production across categories.

10) Which of the following statement(s) is/ are correct with respect to *Nuclear Thermal Rocket*

1. It is a type of thermal rocket where the heat from a nuclear reaction replaces the chemical energy of the propellants in a chemical rocket.
2. NASA and China National Space Administration (CNSA) are only space agencies that has successfully launched NTRs for their space missions.

Select the correct answer using the codes given below:

- a. 1 only
- b. 2 only
- c. Both 1 and 2
- d. Neither 1 nor 2

Answer : a

Nuclear Thermal Rocket

- In an NTR, a working fluid, usually liquid hydrogen, is heated to a high temperature in a nuclear reactor and then expands through a rocket nozzle to create thrust.
- The external nuclear heat source theoretically allows a higher effective exhaust velocity and is expected to double or triple payload capacity compared to chemical propellants that store energy internally.
- NTRs have been proposed as a spacecraft propulsion technology, with the earliest ground tests occurring in 1955.
- The United States maintained an NTR development program through 1973, when it was shut down to focus on Space Shuttle development.
- Although more than ten reactors of varying power output have been built and tested, as of 2021, no nuclear thermal rocket has flown.
- Nuclear Thermal Propulsion systems won't be used on earth it is not designed to produce the amount of thrust needed to leave earth's surface.
- Nuclear Thermal Propulsion systems offer greater flexibility for deep space mission they can

reduce travel times to mars by up to 25% and more importantly limit a flight crew's exposure to cosmic radiation.



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