Forum AS

10 PM Current Affairs Quiz Compilation

14th to 19th March, 2022

PRELIMS

Q.1) - Consider the following statements about Gallium Nitride (GaN) technology:

- 1. Gallium Nitride Technology is of strategic importance with its application to 5G, space and defense applications.
- 2. It can play a key role in enabling LEDs, e-vehicles and wireless communication.
- 3. Its benefits are compounded by its low cost of production.

Which of the statements given above is/are correct?

- a) 1 and 2
- b) 1 and 3
- c) 2 and 3
- d) 1, 2, and 3

Answer - a

Explanation - Gallium nitride (GaN) is a semiconductor commonly used in light-emitting diodes since the 1990s. Gallium Nitride Technology is of strategic importance with its application to **5G**, space and defense applications. Gallium Nitride (GaN) is set to play a key role in enabling evenicles and wireless communication.

Concerns with GaN - One of the problems with GaN, like any other new technology, has been **the high cost.** While the costs are not as prohibitive as they used to be a few years ago—as per Lux Research, GaN would cost \$1,900 for a two-inch substrate whereas silicon would cost \$25-50 for a six-inch substrate—they are still high as compared to silicon.

More important, **company processes are more attuned to silicon products**; a switch to GaN would require more research and development and surety that the products would not fail.

News: Gallium Nitride Ecosystem Enabling Center and Incubator (GEECI) facility at the prestigious Indian Institute of Sciences (IISc), Bengaluru has been jointly set up by the Ministry of Electronics and Information Technology and IISc Bengaluru aimed at establishing GaN based Development Line Foundry facility, especially for RF and power applications, including strategic applications.

Source: Article

Q.2) Which of the following statements is/are correct about the Halari breed of donkey found in India?

- 1. These are found in the region of Saurashtra and are currently in a threatened state and require immediate steps towards conservation.
- 2. These donkeys live in the wild and cannot be domesticated.

Select the answer using the codes given below?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 and 2

Answer: a

Explanation: Halari Donkey is one of the important **livestock** in the semi-arid landscape of **Saurashtra's Jamnagar and Dwarka district of the state of Gujarat**. The Bharwad and Rabari pastoralists are the main communities which use this donkey as a pack animal to carry luggage during migration with small ruminants. The Kumbhar (potter) community also uses this animal for pottery work in Dwarka in the Jamnagar region. These breeds are very special, being on the one hand very alert, resilient, hardy and independent, but also bonded to their herders in a symbiotic relationship.

This elegant donkey from the Halar region of Saurashtra is currently in a **threatened state** and requires immediate steps towards conservation to reverse the declining trend in the population. Recent survey conducted in 2021-22 the number dwindled to 439 individuals in its native tract.

Q.3) Recently tribals in Gujarat are protesting the Par-Tapi-Narmada river linking project. In this regard consider the following statements:

- 1. Narmada river originates from Maikal range near Amarkantak in Chhattisgarh.
- 2. Narmada and Tapi are west flowing rivers, whereas Par is an east flowing river.
- 3. This project spreads through the state of Gujarat and Maharashtra only

Which of the statements given above is/are correct?

- a) 1 and 2
- b) 1 and 3
- c) 2 and 3
- d) 1, 2, and 3

Answer: a

Explanation: Narmada rises from Amarkantak Plateau in Anuppur district **Madhya Pradesh**. The River flows through Gujarat, Chhattisgarh, Madhya Pradesh, and Maharashtra.

Narmada, Tapi, and Par are **all west flowing rivers.** The project of the Par-Tapi-Narmada link generally falls in the state of Gujarat except for the Jheri reservoir which falls in Maharashtra state. Jheri dam is located in the Nasik district of Maharashtra while remaining dams viz. Mohankavchali, Paikhed, Chasmandva, Chikkar, Dabdar, and Kelwan dams are located in the Valsad and Dang districts of Gujarat.

Q.4) Consider the following statements regarding Medical Devices sector in India:

- 1. India is the 4th largest exporter of Medical devices after China, Japan, South Korea.
- 2. Medical devices in India are governed by Drugs and Cosmetics Act, 1940.

Which of the following statements are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 and 2

Answer: b

Explanation: Medical devices sector in India is very small in size. India currently **imports 80-90% of medical devices**. It is the **4th largest market** in Asia after Japan, China, and South Korea.

Medical devices continue to be under the **Drugs and Cosmetics Act 1940** and industry representatives are pushing for a comprehensive regulation that views medical devices separately.

Recently, the Department of Pharmaceuticals has released an Approach Paper for the Draft National Policy for the Medical Devices, 2022.

Q.5) The term "Syllipsimopodi Bideni", recently seen in news, is mentioned, in reference to:

- a) Fossil of a kind of dinosaur
- b) A gecko found in Nilgiri hills of Western Ghats
- c) A geological period in history in Indian subcontinent
- d) Primordial octopus with ten arms.

Answer: d

Explanation:

https://epaper.thehindu.com/Home/ShareArticle?OrgId=G6S9JEUPF.1&imageview=0

Q.6) Syllipsimopodi Bideni was recently seen in news. The term is related to which of the following?

- a) New indigenous bamboo species that grow shortest.
- b) Newly found Gallium cave in Andhra Pradesh
- c) A fossil related to octopus having 10 arms.
- d) A Nuclear facility in Ukraine damaged by Russia.

Answer: C

Scientists said a fossil unearthed in central Montana of a species named Syllipsimopodi bideni represents the oldest-known relative of today's octopuses and boasts 10 arms, with two being twice as long as the other eight.

Syllipsimopodi pushes back by 82 million years the origins of a group called vampyropods that includes today's octopuses.

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Syllipsimopodi represents the only member of the octopus lineage with 10 arms, meaning two were lost in later evolution.

Source: The Hindu

Q.8) With reference to International Space Station (ISS), consider the following statements:

- 1. The ISS was taken into space piece-by-piece and gradually built-in orbit.
- 2. The ISS tends to sink from its orbit at a height of about 250 miles above the Earth.

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: c

Both statements are correct.

The ISS is the most complex international scientific and engineering project in history and the largest structure humans have ever put into space.

This high-flying satellite is a laboratory for new technologies and an observation platform for astronomical, environmental and geological research.

The International Space Station was taken into space piece-by-piece and gradually built in orbit. It consists of modules and connecting nodes that contain living quarters and laboratories, as well as exterior trusses that provide structural support, and solar panels that provide power.

Due to its enormous weight and the ensuing drag, the ISS tends to sink from its orbit at a height of about 250 miles above the Earth. It has to be pushed up to its original line of motion every now and then.

Source: The Hindu

Q.9) With reference to **Nutraceuticals**, consider the following statements:

- 1. A nutraceutical product provides protection against chronic diseases.
- 2. Nutraceuticals provide specific biological therapies.

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

- **Statement 1 is correct**: A nutraceutical product may be defined as a substance, which has physiological benefit or provides protection against chronic disease.
- **Statement 2 is incorrect**: They are considered as a non-specific biological therapy used to promote general well-being, control symptoms and prevent malignant processes.

Source: The Hindu

ECONOMY

Q.1) With reference to **Microfinance Institutions**, consider the following statements:

- 1. MFIs are financial companies that provide small loans to people who do not have any access to banking facilities.
- 2. NBFC-MFIs in India are regulated by Ministry of Finance.

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

Statement 1 is correct: MFIs are financial companies that provide small loans to people who do not have any access to banking facilities.

Statement 2 is incorrect: NBFC-MFIs in India are regulated by the Non-Banking Financial Company -Micro Finance Institutions (Reserve Bank) Directions, 2011 of the Reserve Bank of India (RBI).

Source: The Hindu

Q.2) With reference to Flood Plain Zoning, consider the following statements:

- 1. It is an effective non-structural measure for flood management.
- 2. The objective of zoning is to regulate land use in the flood plains.
- 3. Zoning can remedy any existing flood management issues.

Which of the statements given above is/are correct?

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

Answer: C

Statement 1 is correct: Flood Plain Zoning has been recognized as an effective non-structural measure for flood management.

Statement 2 is correct: The basic concept of flood plain zoning is to regulate land use in the flood plains to restrict the damage caused by floods.

Statement 3 is incorrect: Zoning cannot remedy existing situations, although, it will help in minimising flood damage in new developments.

Source: PIB

Q.3) With reference to Fuel Cell Electric Vehicle(FCEV), consider the following statements:

- 1. FCEVs do not need to be plugged in for charging, like battery-powered EVs.
- 2. It functions based on energy storage and does not rely on a constant supply of fuel and oxygen.

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

Statement 1 is correct: FCEVs do not need to be plugged in for charging, like battery-powered EVs

Statement 2 Is incorrect: Unlike a battery-electricity vehicle, FCEVs does not store energy and, instead, relies on a constant supply of fuel and oxygen.

Source: PIB

Q.4) Consider the following statements regarding Hydrogen as a fuel;

- 1. Hydrogen is clean fuel no emission of carbon monoxide, hydrocarbons and particulate matter is there.
- 2. The investment required in storing and dispensing Hydrogen Fuel Cell vehicles is very low.
- 3. The Ministry of Science and Technology has notified standards for the safety evaluation of Hydrogen Fuel Cell-Based Vehicles.

Which of the statements given above is/are correct?

- a) 1 only
- b) 1 and 2 only
- c) 1 and 3 only
- d) 2 and 3 only

Answer: A

Explanation: Transportation powered by Green hydrogen is going to be a key technology option of the future with significant application, especially across bigger cars, buses, trucks, ships and trains and best suited for medium to long distances.

The investment required in storing and dispensing Hydrogen Fuel Cell vehicles is **expectedly high.** Hydrogen is highly inflammable the production, transport, storage of fuel is a challenge.

The Ministry of Road Transport and Highways has notified standards for the safety evaluation of Hydrogen Fuel Cell-Based Vehicles.

Q.5) "3D Printing" has applications in which of the following:

- 1. Preparation of confectionary items
- 2. Manufacture of bionic ears
- 3. Automotive industries
- 4. Data processing technologies
- 5. Bunkers and parking facilities for military vehicles

Which of the statements given above is/are correct?

- a) 1, 2 and 3
- b) 1, 4 and 5
- c) 2, 3, 4 and 5
- d) 1, 2, 3, 4 and 5

Answer: D

Explanation: 3D Printing is used in a wide range of industries from construction to medical technology.

Recently, 3D printing is being used by the army to make housing, bunkers, and parking facilities for vehicles in border areas where the construction is challenging due to harsh weather conditions and there is short supply of labour due to threat from hostile neighbours.

Q.6) Consider the following statements regarding 'Flood Plain Zoning':

- 1. Flood Plain Zoning has been recognized as an effective structural measure for flood management.
- 2. At present, all states of India have enacted legislation for floodplain zoning, in accordance with the guidelines of the National Disaster Response Force.

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 and 2

Answer D

Explanation: Flood Plain Zoning has been recognized as an **effective non-structural measure** for flood management. Flood-plain zoning measures aim at demarcating zones or areas likely to be affected by floods of different magnitude or frequencies and probability levels, and specify the types of permissible developments in these zones, so that whenever floods actually occur, the damage can be minimized.

The Ministry of Jal Shakti has continuously impressed upon the States the need to adopt flood plain zoning approach. A model draft bill for flood plain zoning legislation was also circulated by the Union Government to all the States. This bill envisages zoning of flood plain of a river according to flood frequencies and defines the type of use of flood plain. The states of Manipur, Rajasthan, Uttarakhand and erstwhile State of Jammu & Kashmir had enacted the legislation. However, delineation and demarcation of flood plains is yet to be undertaken.

Q.7) Consider the following statements about classical dances in India:

- 1. Kathak is the only form of classical dance wedded to Hindustani or the North Indian music.
- 2. The Gopurams of Chidambaram temple display the poses of Kathakali.

Which of the statements given above is/are incorrect?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 and 2

Answer: b. 2 only

Explanation: The Gopurams of Chidambaram temple display the poses of Bharatnatyam. Brihadeshwara temple was also a major centre for Bharatnatyam since 1000 CE.

Q.8) Consider the following statements regarding Semiconductor chips:

- 1. These chips are now an integral part of contemporary automobiles, household gadgets and essential medical devices.
- 2. India currently imports all of its semiconductor chips requirements.

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 and 2

Answer C

Explanation: Semiconductors are materials which have a **conductivity between conductors** and **insulators**. They can be **pure elements**, silicon or germanium or **compounds**; gallium, arsenide or cadmium selenide.

These chips are now an integral part of contemporary automobiles, household gadgets and essential medical devices such as ECG machines.

India currently **imports all chips** and the market is estimated to touch \$100 billion by 2025 from \$24 billion now. India has also launched the **Scheme for Promotion of Manufacturing of Electronic Components and Semiconductors (SPECS)** under which a budget outlay of Rs 3,285 crore is spread over a period of **eight years** for manufacturing of electronics components and semiconductors.

POLITY AND GOVERNANCE

Q.1) With reference to National e-Vidhan application, consider the following statements:

- 1. It is a mission-mode project for Digital Legislatures to make the functioning of all Legislative Houses in the country paperless.
- 2. Bihar Legislative Council is the first House in the country to transit to NeVA platform completely.

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: c

Both statements are correct.

- **Statement 1 is correct:** "National eVidhan Application (NeVA)", a Mission Mode Project for Digital Legislatures to make the functioning of all Legislative Houses in the country paperless has been developed on the theme of 'One Nation One Application'.
- **Statement 2 is correct**: Bihar Legislative Council became the first House in the country to transit to NeVA platform completely on 25th Nov, 2021 and conducted Winter Session, 2021 on the NeVA platform in paperless mode.

Source: Article

Q.2) Which of the following pair(s) is/are correctly matched?

Color of Hydrogen Production method

1. Grey Pyrolysis

2. Turquoise Steam Methane Reforming (SMR)

3. Green Electrolysis

Select the correct code from the answers given below:

- a) 1 only
- b) 2 and 3 only
- c) 3 only
- d) 1 and 3 only

Answer: c

- Grey Hydrogen SMR or Gasification
- Turquoise Hydrogen Pyrolysis
- Green Hydrogen Electrolysis

Source: Article

Q.3) Koshyari Committee was seen in news recently. The committee is related to which of the following?

- a) Promotion of fuel cell research in India.
- b) Regarding One Rank One Pension scheme.
- c) Demarcation of state boundaries.
- d) Increasing the old age pension for citizens above 80 years.

Answer: B

Ex-servicemen demanded OROP to correct the discrepancy. Over the decades, several committees looked into it.

The Brig K P Singh Deo committee in 1983 recommended a system similar to the Standard Rate of Pension, as did Parliament's standing committees on defence.

In 2011, the Rajya Sabha Committee on Petitions (Koshyari Committee) recommended the implementation of OROP

In 2015, the government notified the current OROP scheme and it was made applicable from July 1, 2014.

Source: <u>Indian Express</u>

Q.4) With reference to **Sealed Cover Jurisprudence**, consider the following statements:

- 1. The Sealed Cover Jurisprudence is practiced in the Supreme Court and lower courts.
- 2. Sealed covers can be accessed only by Judges and the accused parties.

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

Statement 1 is correct: The Sealed Cover Jurisprudence is practiced in the Supreme Court and lower courts.

Statement 2 is incorrect: The sealed envelopes can only be accessed by judges not even to the accused parties thereby obstructs the passage of fair trial and adjudication.

Source: The Hindu

Q.5) With reference to **Green Bonds**, consider the following statement:

- 1. A green bond is a type of fixed-income instrument that is specifically earmarked to raise money for climate and environmental projects.
- 2. The World Bank is a major issuer of green bonds.
- 3. The functioning of green bonds is completely different from corporate or government bond.

Which of the statements given above is/are correct?

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

Answer: C

Statement 1 is correct: A green bond is a type of fixed-income instrument that is specifically earmarked to raise money for climate and environmental projects.

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Statement 2 is correct: The World Bank is a major issuer of green bonds. It has issued 164 such bonds since 2008, worth a combined \$14.4 billion. In 2020, the total issuance of green bonds was worth almost \$270 billion, according to the Climate Bond Initiative.

Statement 3 is incorrect: Green bonds work just like any other corporate or government bond.

- Borrowers issue these securities in order to secure financing for projects that will have a positive environmental impact, such as ecosystem restoration or reducing pollution.
- Investors who purchase these bonds can expect to make as the bond matures.
- In addition, there are often tax benefits for investing in green bonds.

Source: Business Standard

Q.6) Consider the following statements regarding Financial Action Task Force (FATF):

- 1. It is an intergovernmental body that deals with policies to combat money laundering and terrorist financing.
- 2. It is a specialized agency of the United Nationals, formed under the aegis of the UN Economic and Social Council.

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 and 2

Answer: A

The Financial Action Task Force (FATF) is an **inter-governmental body** established in 1989 on the **initiative of the G7.** The FATF Secretariat is housed at the **OECD headquarters in Paris.** It is a **"policy-making body"** which works to generate the necessary political will to bring about national legislative and regulatory reforms in various areas. It is not a specialized agency of the UN.

Q.7) Consider the following statements regarding the National Rail Plan (NRP) for India – 2030:

- 1. The NRP is aimed to formulate strategies to increase the modal share of the Railways in freight to 45%.
- 2. Presently, around 64% of overall freight transportation being carried out by waterways.

Which of the statements given above is/are incorrect?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 and 3

Answer: B

Presently, the modal share is skewed in favor of roadways with 64% of overall freight transportation being carried out by roads.

The objective of the National Rail Plan is to create capacity ahead of demand, which in turn would also cater to future growth in demand right up to 2050 and also increase the modal share of Railways to 45 per cent in freight traffic and to continue to sustain it.

Further info - https://www.pib.gov.in/PressReleasePage.aspx?PRID=1806617

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Q.8) Consider the following statements regarding Hydrogen as a fuel:

- 1. Blue hydrogen is sourced from fossil fuels. It releases by-products like Carbon monoxide and Carbon dioxide.
- 2. Green hydrogen is generated from renewable energy. The by-products include water and water vapor.
- 3. Grey hydrogen constitutes India's bulk production. It is extracted from hydrocarbons.

Which of the statements given above is/are correct?

- a) 1 and 2
- b) 1 and 3
- c) 2 and 3
- d) 1, 2 and 3

Answer: D

Grey hydrogen constitutes India's bulk production. It is extracted from hydrocarbons (fossil fuels and natural gas). By product: CO2.

Blue hydrogen is sourced from fossil fuels. It releases by-products like Carbon monoxide and Carbon dioxide. However, the **by-products are captured and stored**, so it is better than grey hydrogen.

Q.9) Consider the following statements regarding fertilizer consumption in India:

- 1. The MRPs of urea fertilizers are decontrolled or fixed by the companies.
- 2. India follows a Nutrient Based Subsidy regime for Non-urea fertilizers.

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 and 2

Answer: B

India's fertiliser consumption consists of approx. 55% urea.

Since non-urea varieties cost higher, many farmers prefer to use more urea than actually needed.

Subsidy on Urea: The Centre <u>pays subsidy</u> on urea to fertilizer manufacturers on the basis of cost of production at each plant and the units are required to sell the fertiliser at the government-set Maximum Retail Price (MRP).

Subsidy on Non-Urea Fertilisers: The MRPs of non-urea fertilisers are decontrolled or fixed by the companies.

However, under the NBS regime the government decides the rates for nutrients like Nitrogen (N), Phosphorous (P), Potassium (K), Sulphur (S) etc. which then are used for calculating a flat per ton rate.

Q.10) Consider the following statements about "National eVidhan Application (NeVA)":

- 1. It is a Mission Mode Project for Digital Legislatures to make the functioning of all Legislative Houses in the country paperless.
- 2. Recently, Bihar Legislative Council became the first House in the country to transit to NeVA platform completely.

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 and 2

Answer: C

"National eVidhan Application (NeVA)", **a Mission Mode Project** for Digital Legislatures to make the functioning of all Legislative Houses in the country paperless has been developed on the theme of 'One Nation – One Application'.

NeVA is transforming all State Legislatures into 'DIGITAL HOUSES' so as to enable them to transact entire Government Business on digital platform including information exchange with the State Government Departments in digital mode.

As a special achievement, **Bihar Legislative Council** became the first House in the country to transit to NeVA platform completely on 25th Nov, 2021 and conducted Winter Session, 2021on the NeVA platform in paperless mode. To adopt National e-Vidhan Application (NeVA), Memorandum of Understanding (MoU) have been signed with 18 States.

