Q1. Which of the following statement(s) is/are *not correct* with respect to the Deputy Speaker of the Lok Sabha?

1. He/She is responsible to the Speaker of the House.
2. The date of the election for Deputy Speaker is decided by the President.
3. The Deputy Speaker, while assuming office, do subscribe to separate oath or affirmation

Choose the correct answer using the codes given below:

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

Answer: D

In News- More than a year after the 17th Lok Sabha was constituted, the constitutionally mandated post of Deputy Speaker is lying vacant.

Option D is correct: Here it is asked about the incorrect options so all the statements are not correct. Article 93 of the Constitution provides for the election of both the Speaker and the Deputy Speaker. He performs the duties of the Speaker's office when it is vacant. He also acts as the Speaker when the latter is absent from the sitting of the House. In both cases, he assumes all the powers of the Speaker.
Role- They act as the presiding officer in case of leave or absence caused by death or illness of the Speaker of the Lok Sabha.
Election- Usually, the Deputy Speaker is elected in the first meeting of the Lok Sabha after the General elections from amongst the members of the Lok Sabha.
According to the Rules of Procedure and Conduct of Business in Lok Sabha, "The election of a Deputy Speaker shall be held **on such date as the Speaker may fix.**
It is by convention that the position of Deputy Speaker is offered to the opposition party in India.
The Speaker and the Deputy Speaker, while assuming their offices, do not make and subscribe any separate oath or affirmation.

Q2. "Streets for People Challenge" initiatve for making cities more walkable and pedestrian friendly is launched by which of the following Ministry?

(a) Ministry of Housing and Urban Affairs(MoHUA)

(b) Ministry of Panchyati Raj
(c) Ministry of Communications and Information Technology
(d) Ministry of Home Affairs(MoHA)

Answer: A

Explanation:

In News- Minister of Housing and Urban Affairs launched the Climate Smart Cities Assessment Framework (CSCAF 2.0) along with the 'Streets for People Challenge'.

Option A is correct: The Challenge builds on the advisory issued by MoHUA for the holistic planning for pedestrian-friendly market spaces, earlier this year.**Implementation-** Fit India Mission, under Ministry of Youth Affairs and Sports, along with the India program of the Institute for Transport Development and Policy (ITDP) have partnered with the Smart Cities Mission to support the challenge.The India Programme of the Institute for Transportation and Development Policy (ITDP) will be the knowledge partner, providing guidance through the preparation of resource material and facilitating online peer-to-peer learning workshops.

Q3. Which of the following statement(s) is/are correct with respect to the Environment Performance Index?

1. India is among the top 10 performing countries in this index.
2. It is released by the United Nation Environment Programme(UNEP).

Choose 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

Explanation:

Statement 1 is not correct: Recently 12th edition of the biennial Environment Performance Index (EPI Index 2020) has been released. The index ranks 180 countries on 32 performance indicators across 11 categories covering environmental health and ecosystem vitality. India secured 168th rank. The country scored 27.6 out of 100 in the 2020 index.
Statement 2 is not correct: Developed by Yale University (Yale Center for Environmental Law and Policy) and Columbia University (Center for International Earth Science Information

Network) in collaboration with the World Economic Forum and the Joint Research Centre of the European Commission.

Q4. Which of the following is true regarding "Xenobot"?

(a) It is a "malware" and a threat to cybersecurity of India.
(b) It is a "big robot" to handle the electronic waste.
(c) These are tiny robots, also touted as "first living machines".
(d) None of these

Answer: C

Explanation:

Option C is correct: Scientists in the United States have created the world's first —living Machines. These are tiny robots built from the stem cells of the African clawed frog, that can move around on their own. The species of aquatic frog found across sub-Saharan Africa from Nigeria and Sudan to South Africa, Xenopus laevis. The xenobots can move toward a target, perhaps pick up a payload (like medicine that needs to be carried to a specific place inside a patient) and heal themselves after being cut.

Q5. With refrence to Scramjet engines, consider the following statements:

1. It efficiently operates at hypersonic speeds and allows supersonic combustion with speed greater than 6 Mach i.e. Six times the speed of Sound.
2. It carries its fuel and oxidizer both within its fuel chambers.

Which of the above statements is/are true?

(a) 1 only
(b) 2 only
(c) Both 1 and 2
(d) Neither 1 nor 2

Answer: A

Explanation:

Statement 1 is correct: Ramjets work most efficiently at supersonic speeds around Mach 3 (three times the speed of sound) and can operate up to speeds of Mach 6. However, the ramjet efficiency starts to drop when the vehicle reaches hypersonic speeds. A scramjet engine is an

improvement over the ramjet engine as it efficiently operates at hypersonic speeds and allows supersonic combustion. Thus it is known as Supersonic Combustion Ramjet or Scramjet.

Statement 2 is not correct: It is an air-breathing jet engine. air from the atmosphere is rammed into the engine's combustion chamber at a supersonic speed of more than Mach two.
In the chamber, the air mixes with the fuel to ignite a supersonic combustion but the cruiser's flight will be at a hypersonic speed of Mach six to seven. So it is called supersonic combustion ramjet or Scramjet.