Q: Consider the following statement regarding Dimethyl Ether:

1. It has a very high cetane number.
2. It is used in chemical industries and to produce dyes and plastics.
3. Under normal condition, it is green in colour.

Choose the correct option from the codes given below:

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

Ans: a
Explanation:

- Dimethyl Ether has a very high cetane number, which is a measure of the fuel's ignitibility in compression ignition engines.
- Under normal atmospheric conditions, DME is a colorless gas.
- It is used extensively in the chemical industry and as an aerosol propellant.
- It is used in chemical industries and also to produce dyes and plastics.

Q: Consider the following statement regarding Protosterol Biota:

1. It belongs to the family of organisms called prokaryotes.
2. These are discovered inside a rock at the bottom of the ocean.
3. They have a complex structure combining mitochondria.

Choose the correct option from the codes given below:

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

Ans: b
Explanation:

- Protosterol Biota is the microscopic organism, belongs to the family of organisms called eukaryotes.
- These are discovered inside a rock at the bottom of the ocean near what is now the Northern Territory in Australia.
- They have a complex structure combining mitochondria.

Q: Consider the following statement regarding power exchange:

1. At present India has three power exchanges.
2. Here buyers and sellers at each exchange do trading of electricity and discover spot price separately

Choose the correct option from the codes given below:

a) 1 Only
b) 2 Only
c) 1 and 2
d) None of the above

Ans: c
Explanation:

- At present India has three power exchanges; Indian Electricity Exchange (IEX), Power Exchange of India (PXIL) and Hindustan Power Exchange (HPX).
- In the present scenario, buyers and sellers at each exchange do trading of electricity and discover spot price separately at these exchanges. After coupling of exchanges, the price discovery would be uniform.

Q: Consider the following statement regarding Nutrient Based Subsidy scheme:

1. The scheme is being implemented by the Department of Fertilizers.
2. A fixed amount of subsidy decided on each grade of subsidized Phosphatic & Potassic (P&K) fertilizers.
3. It helps farmers in ensuring availability of essential nutrients at subsidized prices.

Choose the correct option from the codes given below:

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

Ans: d
Explanation:

- Nutrient Based Subsidy scheme is being implemented in 2010 by the Department of Fertilizers, Ministry of Chemicals & Fertilizers.
- A fixed amount of subsidy decided on annual basis, is provided on each grade of subsidized Phosphatic & Potassic (P&K) fertilizers depending on its Nutrient Content.
- In case of phosphate (P) and potassic (K)fertilisers, subsidy is fixed under this scheme by an inter-ministerial committee taking into account the benchmark international prices of finished fertilisers as well as raw materials.
- The subsidy is given to registered to P&K fertiliser manufacturers/importers which provides these fertilisers at subsidised rates to farmers.
- It helps farmers in ensuring availability of essential nutrients at subsidized prices.

Q: Consider the following statement regarding Captagon pill:

1. It is a highly addictive amphetamine-type drug.
2. It is produced mainly in Syria.
3. Amphetamine-type drug stimulates muscular system.

Choose the correct option from the codes given below:

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

Ans: a
Explanation:

- Captagon pill is a highly addictive amphetamine-type drug, which is produced mainly in Syria.
- The original Captagon contained fenetylline, a synthetic drug of the phenethylamine family to which amphetamine also belongs.
- It was commercially sold in several countries until the 1980s and was banned due to fears of its highly addictive nature.
- It stimulates the central nervous system, providing a boost of energy, enhance someone's focus, let someone stay awake for longer periods of time, and produce a feeling of euphoria.