

PRESTORMINGTM 2021
TEST 17 - SCITECH

40. Consider the following statements

1. Atmospheric ammonia is typically generated due to agricultural activities including the use of nitrogenous fertilizers, manure management, soil and water management practices and animal husbandry
2. Atmospheric ammonia plays a key role in the deterioration of air quality in India by actively contributing to the formation of secondary aerosols
3. A recent study has found that the Indo-Gangetic Plain (IGP) is a global hot-spot of atmospheric ammonia.

Which of the statements given above is/are correct?

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

41. Consider the following statements regarding the Food Safety and Standards (Fortification of Foods) First Amendment Regulations, 2020.

1. The FSSAI had earlier notified the standards of fortification for five staple product categories - milk, edible oil, rice, flour and salt.
2. It has restricted the amount of fortification for processed food products to 15-30% of the Indian adult RDA (Recommended Dietary Allowance) of micronutrient.
3. Also, the products that are high in fat, salt and sugar will be excluded from the fortified processed foods category.
4. It has also launched the 'F+' logo to be displayed on labels of fortified food products for easy identification by consumers.

Which of the statements given above are correct?

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

42. Consider the following:

1. Alcoholic beverages 2. Bread 3. Sauerkraut 4. Apple cider vinegar

Fermentation is used in the production of which of the above products?

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

43. With reference to DNA fingerprinting consider the following statements:

1. DNA fingerprinting involves identifying differences in some specific regions in a DNA sequence called repetitive DNA.
2. DNA fingerprinting is the basis of paternity testing, in case of disputes.
3. Polymorphism in a DNA sequence is the basis of genetic mapping of the human genome as well as of DNA fingerprinting.

Which of the statements given above are correct?

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

44. Which of the following findings, with respect to the recent publication of the National Family Health Survey-5, is/are correct?

1. All the states of India have achieved the level of Total Fertility Rate (TFR) of 2.1 or less, which implies that most states have attained replacement level fertility.
2. Kerala is the leading state to reduce the Total Fertility Rate (TFR) across the states of India.
3. While Sikkim recorded the lowest Total Fertility Rate, Bihar recorded the highest Total Fertility Rate.

Select the correct answer using the codes given below

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

45. Which one of the following statement is not correct about the Tokamak fusion reactor?

- (a) The energy produced through the fusion of atoms is absorbed as heat in the walls of the vessel
- (b) It has an internal filtration facility so that impurities need not be removed initially
- (c) The charged particles of the plasma can be shaped and controlled by the massive magnetic coils placed around the vessel
- (d) Just like a conventional power plant, a Tokamak fusion power plant will use this heat to produce steam and then electricity

46. With reference to the element 'Einsteinium' consider the following statements:

1. Einsteinium has a half-life of 20 days.
2. Because of its high radioactivity and long half-life of all einsteinium isotopes, even if the element was present on Earth during its formation, it has most certainly decayed.
3. The element is not visible to the naked eye.

Which of the statements given above are correct?

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