GENERAL KNOWLEDGE & CURRENT AFFAIRS

Passage 1

The government is willing to procure the harvest of jute and cotton from farmers if the market price is lower than the Minimum Support Price (MSP), Union Minister Piyush Goyal said on Wednesday. The minister further said that the Centre is working towards increasing the production of jute and cotton and is willing to provide quality seeds and fertilisers for quality produce to fulfil the vision of farm to foreign exports.

The Union Minister for Textiles, Consumer Affairs & Food & Public Distribution and Commerce & Industry made the remarks during his interaction with beneficiaries of the Textile Sector here as he also urged them to be vocal for local.

The minister further noted that ramping up textile production in the country will spur income, open up employment opportunities and play a vital role in making the country 'Atmanirbhar' as well. He urged the artisans to register their businesses on the Government e-Marketplace (GeM). Goyal also said he has instructed GeM to register all artisans and weavers connected with handicraft and handloom without any registration fee.

1. In which year was the concept of MSP introduced in India?
   (a) 1966 (b) 1950
   (c) 1947 (d) 2000

2. Who fixes the Minimum Support Price for the crops?
   (a) Cabinet Committee on Economic Affairs
   (b) Parliament of India
   (c) Commission for Agricultural Costs and Prices
   (d) NITI Ayog

3. Which of the following is not a Kharif Crop?
   (a) Guar (b) Jowar
   (c) Mustard (d) Paddy

4. For how many crops does the Government fix the MSP in India currently?
   (a) 21 (b) 22
   (c) 23 (d) 25

5. Which among the following is a Rabi crop?
   (a) Barley
   (b) Gram
   (c) Masoor
   (d) All of the above

6. In which of the following months is the Kharif crop harvested?
   (a) August (b) June
   (c) October (d) January

Passage 2

Hidden from public, on the shores of the Bay of Bengal at Kalpakkam near Chennai, Indian nuclear scientists are in the final throes of starting a high-tech giant stove more than 15 years in the making. This novel nuclear reactor is a kind of an 'akshaya patra', the mythical goblet with a never-ending supply of food. The Department of Atomic Energy is getting ready to commission its ultra-modern indigenously designed fast breeder reactor.

Yukiya Amano, Director General of International Atomic Energy Agency (IAEA), Vienna, says "fast reactors can help extract up to 70 per cent more energy than traditional reactors and are safer than traditional reactors while reducing long lived radioactive waste by several fold". Easier said than done, since these reactors are also notoriously unstable and hence difficult to run reliably over long periods. Called a 'Fast Breeder Reactor', these nuclear reactors can generate more atomic fuel than they consume.

India has been running an experimental facility called a Fast Breeder Test Reactor now for 27 years. This is a small nuclear reactor a forerunner for the monster that India has constructed at Kalpakkam called the Prototype Fast Breeder Reactor. This will generate electricity commercially using the fast breeder route.

7. Which of the following is NOT a function of IAEA?
   (a) Safeguarding nuclear materials
   (b) Promoting nuclear safety
   (c) Supporting industrial applications of radiation technology
   (d) Regulating nuclear weapons proliferation

8. Which coolant is most commonly used in PWRs (Pressurized Water Reactors)?
   (a) Liquid sodium
   (b) Water
   (c) Heavy water
   (d) Liquid metal

9. What is the function of fuel rods in a BWR (Boiling Water Reactor)?
   (a) To contain nuclear fuel and control rods
   (b) To absorb excess neutrons and regulate the reaction rate
   (c) To conduct heat from the fuel to the coolant
   (d) To convert thermal energy into electrical energy

10. What process does a cooling tower use to cool down the water in a nuclear power plant?
   (a) Evaporation
   (b) Condensation
   (c) Sublimation
   (d) Solidification

11. Which type of reactor uses boiling water to create steam directly within the reactor?
   (a) Pressurized Water Reactor
   (b) Boiling Water Reactor
   (c) Heavy Water Reactor
   (d) Liquid Metal Reactor

12. What is the standard form of a Pressurized Water Reactor (PWR)?
   (a) Pressurized Water Reactor
   (b) Pressurized Water Resistor
   (c) Pressurized Water Reluctance Plant
   (d) Water Reactor