



# P.L.RAJ IAS & IPS ACADEMY

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## DAILY UPSC PRILIMS MCQ 21.06.2026

**1. With reference to the Development Policy Financing (DPF) of the World Bank, recently seen in the news, consider the following statements:**

- I. Development Policy Financing provides budget support linked to policy and institutional reforms rather than financing specific infrastructure projects.
- II. The release of funds under DPF is contingent upon the maintenance of an adequate macroeconomic policy framework and satisfactory implementation of agreed policy actions.
- III. Development Policy Financing is administered jointly by the World Bank and the International Monetary Fund (IMF).

How many of the above statements are correct?

(a) Only one

**(b) Only two**

(c) All three

(d) None

**Answer: (b)**

### Explanation

Statements **I** and **II** are correct, whereas Statement **III** is incorrect.

**Development Policy Financing (DPF)** is one of the principal lending instruments of the **World Bank**.

Unlike project financing, DPF:

- **Supports government-led policy and institutional reforms.**
- Provides **direct budgetary assistance** rather than funding individual infrastructure projects.
- Promotes reforms relating to:
  - **Macroeconomic stability**
  - **Governance**
  - **Institutional strengthening**
  - **Poverty reduction**
  - **Climate resilience**
  - **Private sector development**

Disbursement depends upon:

- **Adequate macroeconomic policy framework** (assessed by the World Bank using IMF assessments).
- **Satisfactory implementation of agreed policy reforms.**
- Fulfilment of agreed policy actions.
- Consistency with the **Paris Agreement** where applicable.

Although the IMF assessment is considered, **DPF is administered solely by the World Bank**, not jointly by the IMF.

**2. Which one of the following best describes the distinguishing feature of Development Policy Financing (DPF) provided by the World Bank?**

(a) It finances only large-scale physical infrastructure projects.

**(b) It provides financial assistance linked to policy and institutional reforms undertaken by the recipient government.**

(c) It is available exclusively to Least Developed Countries (LDCs).

(d) It is intended only for emergency humanitarian assistance following natural disasters.

**Answer: (b)**

**Explanation**

The defining characteristic of **Development Policy Financing (DPF)** is that it links financial assistance with **government policy reforms** rather than with individual investment projects.

It is designed to support reforms in areas such as:

- Fiscal management
- Governance
- Financial sector reforms
- Public administration
- Sustainable development
- Climate-related policy reforms

DPF differs from **Investment Project Financing (IPF)**, which finances physical infrastructure and specific development projects.

**3. With reference to Quantum 5G Fixed Wireless Access (Q-5G FWA), recently launched by BSNL, consider the following statements:**

- I. It uses SIM-less authentication through Direct-to-Device technology.
- II. The indigenous technology stack includes the Core Network, Radio Access Network (RAN), and Customer Premises Equipment (CPE).

- III. The pilot service is based on a Non-Standalone (NSA) 5G architecture integrated with existing 4G infrastructure.

How many of the above statements are correct?

(a) Only one

**(b) Only two**

(c) All three

(d) None

**Answer: (b)**

#### **Explanation**

Statements I and II are correct, whereas Statement III is incorrect.

**Quantum 5G Fixed Wireless Access (Q-5G FWA)** represents India's first indigenous 5G Fixed Wireless Access solution introduced by **BSNL**.

Its notable features include:

- **SIM-less authentication** using **Direct-to-Device technology**.
- Fully indigenous technology stack comprising:
  - **Core Network**
  - **Radio Access Network (RAN)**
  - **Customer Premises Equipment (CPE)**
- High-speed broadband without fibre deployment.
- Self-installation capability using existing telecom towers.

The future roadmap specifically mentions deployment over a **5G Standalone (SA) Core**, making Statement III incorrect.

4. Which one of the following features primarily distinguishes Quantum 5G Fixed Wireless Access (Q-5G FWA) from conventional fibre-based broadband connectivity?

(a) It relies exclusively on submarine optical fibre networks.

**(b) It delivers broadband connectivity using existing 5G wireless infrastructure without requiring last-mile fibre deployment.**

(c) It requires installation of a physical SIM card inside every router.

(d) It is designed exclusively for satellite internet communication.

**Answer: (b)**

#### **Explanation**

**Fixed Wireless Access (FWA)** provides broadband internet through **wireless radio links** instead of physical fibre connections.

The BSNL Quantum 5G FWA system:

- Uses **existing telecom towers**.
- Eliminates trenching and fibre installation.
- Supports **rapid deployment**.
- Delivers **gigabit-class broadband speeds**.
- Enables connectivity in areas where laying fibre is difficult or expensive.

This makes FWA an important solution for **Digital India**, **rural broadband expansion**, and **last-mile connectivity**.

**5. With reference to a Super El Niño event, recently discussed by global climate agencies, consider the following statements:**

- It is characterised by exceptionally warm sea surface temperatures in the central and eastern equatorial Pacific Ocean.
- The Oceanic Niño Index (ONI) is one of the principal indices used to monitor El Niño conditions.
- A Super El Niño generally strengthens the Indian Summer Monsoon, resulting in above-normal rainfall over most parts of India.

How many of the above statements are correct?

(a) Only one

**(b) Only two**

(c) All three

(d) None

**Answer: (b)**

**Explanation**

Statements **I** and **II** are correct, whereas Statement **III** is incorrect.

A **Super El Niño** represents an exceptionally intense phase of the **El Niño–Southern Oscillation (ENSO)** phenomenon.

Key characteristics include:

- **Abnormally warm sea surface temperatures** in the **equatorial Pacific Ocean**.
- Global changes in atmospheric circulation.
- Significant impacts on rainfall, agriculture and extreme weather.

Major monitoring indices include:

- **Oceanic Niño Index (ONI)**
- **Southern Oscillation Index (SOI)**
- **Relative Oceanic Niño Index (RONI)**

For India, a strong El Niño is generally associated with:

- **Weaker Southwest Monsoon**
- Increased probability of **below-normal rainfall**
- Higher frequency of **heatwaves**
- Greater risk of **droughts**
- Reduced agricultural productivity
- Decline in reservoir levels and hydropower generation

Hence, Statement III is incorrect because **Super El Niño usually weakens rather than strengthens the Indian Summer Monsoon.**

**6. Which one of the following is the most likely consequence of a Super El Niño event for the Indian economy?**

- (a) Above-normal reservoir storage leading to higher hydropower generation.
- (b) Simultaneous increase in agricultural productivity and food grain exports.
- (c) Lower agricultural output accompanied by inflationary pressures arising from reduced food production.**
- (d) Uniform increase in rainfall across all agro-climatic regions of India.

**Answer: (c)**

#### **Explanation**

A **Super El Niño** weakens the **Southwest Monsoon**, thereby affecting agriculture and water availability.

Its major economic consequences include:

- **Decline in food grain production.**
- Reduced horticultural output.
- Lower reservoir storage and groundwater recharge.
- Reduced hydropower generation.
- Increase in food inflation.
- Adverse impact on rural incomes and agricultural GDP.
- Higher fiscal burden due to drought relief and crop insurance.

Since agriculture remains sensitive to monsoon variability, a severe El Niño can exert downward pressure on **overall economic growth.**

**7. With reference to the recently developed solar-powered device for green hydrogen production, consider the following statements:**

- I. It produces hydrogen directly from water using solar energy without relying on fossil fuels.
- II. The photoanode incorporates an n-i-p heterojunction consisting of titanium dioxide, intrinsic silicon and nickel oxide.
- III. The technology primarily depends on platinum-group metals as the active catalytic material.

How many of the above statements are correct?

(a) Only one

**(b) Only two**

(c) All three

(d) None

**Answer: (b)**

#### **Explanation**

Statements **I** and **II** are correct, whereas Statement **III** is incorrect.

Scientists at the **Centre for Nano and Soft Matter Sciences (CeNS), Bengaluru** have developed a scalable **solar-powered photoelectrochemical device** for green hydrogen generation.

Key features include:

- **Direct solar-driven water splitting.**
- Elimination of fossil fuel dependence.
- Silicon-based photoanode comprising:
  - **n-type Titanium Dioxide (TiO<sub>2</sub>)**
  - **Intrinsic Silicon (Si)**
  - **p-type Nickel Oxide (NiO)**

The innovation specifically seeks to reduce dependence on **expensive noble metals**, making hydrogen production more affordable and scalable.

#### **8. Which one of the following best explains the significance of the newly developed photoelectrochemical device for India's energy transition?**

(a) It enables commercial nuclear fusion for electricity generation.

**(b) It facilitates affordable production of green hydrogen using renewable solar energy.**

(c) It converts atmospheric nitrogen directly into ammonia.

(d) It stores electricity using compressed hydrogen generated from coal gasification.

**Answer: (b)**

#### **Explanation**

The innovation addresses one of the major challenges in India's hydrogen economy—**reducing the cost of green hydrogen production.**

Its significance includes:

- **Renewable hydrogen production.**
- Reduction in greenhouse gas emissions.
- Support to the **National Green Hydrogen Mission.**
- Lower dependence on imported fossil fuels.
- Integration of renewable energy with industrial decarbonisation.
- Potential applications in:
  - Transport.
  - Fertiliser production.
  - Steel manufacturing.
  - Long-duration energy storage.
  - Heavy industries.

The technology represents an important step towards India's **Net Zero 2070** commitment.

**9. With reference to Aqueous Zinc-Ion Batteries (AZIBs), recently developed by the Institute of Nano Science and Technology (INST), consider the following statements:**

- I. They use water-based electrolytes, making them inherently safer than conventional lithium-ion batteries.
- II. The newly developed BDIM additive suppresses zinc dendrite formation and minimises the Hydrogen Evolution Reaction (HER).
- III. AZIBs rely extensively on lithium and cobalt for their electrochemical performance.

How many of the above statements are correct?

(a) Only one

**(b) Only two**

(c) All three

(d) None

**Answer: (b)**

**Explanation**

Statements **I** and **II** are correct, whereas Statement **III** is incorrect.

The **Aqueous Zinc-Ion Battery (AZIB)** is emerging as a promising alternative for **large-scale stationary energy storage**.

The newly synthesised electrolyte additive **BDIM**:

- Selectively adsorbs on the zinc surface.
- **Suppresses zinc dendrite growth.**

- Reduces corrosion.
- Minimises the **Hydrogen Evolution Reaction (HER)**.
- Enhances battery life and safety.

Unlike lithium-ion batteries, AZIBs reduce dependence on **critical minerals such as lithium and cobalt**, thereby improving resource security and lowering costs.

**10. Consider the following pairs:**

| Technology/Programme            | Associated Feature                                        |
|---------------------------------|-----------------------------------------------------------|
| I. Development Policy Financing | Budget support linked to policy reforms                   |
| II. Quantum 5G FWA              | SIM-less authentication using Direct-to-Device technology |
| III. Aqueous Zinc-Ion Battery   | Electrolyte additive BDIM suppresses zinc dendrites       |
| IV. Super El Niño               | Strengthening of the Indian Southwest Monsoon             |

How many of the above pairs are correctly matched?

- (a) Only one
- (b) Only two
- (c) Only three**
- (d) All four

**Answer: (c)**

**Explanation**

Pairs **I, II and III** are correctly matched, whereas Pair **IV** is incorrect.

- **Development Policy Financing (DPF)** provides **budgetary assistance linked to policy and institutional reforms**, rather than financing individual projects.
- **Quantum 5G Fixed Wireless Access** uses **SIM-less Direct-to-Device authentication**, supported by an indigenous **Core-RAN-CPE** technology stack.
- **Aqueous Zinc-Ion Batteries (AZIBs)** employ the **BDIM electrolyte additive**, which suppresses **zinc dendrite formation**, reduces corrosion and improves battery longevity.
- A **Super El Niño** is generally associated with a **weakening of the Indian Southwest Monsoon**, increasing the likelihood of droughts, heatwaves and agricultural stress. Therefore, Pair IV is incorrectly matched.