

DAILY GENERAL AWARENESS QUIZ

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Tuesday, 01 September 2026

1. Mission Samriddh Gaon Launched to Create Poverty-Free Villages. In context to the same tell us, who among the following prepared the first official poverty line estimates in independent India in 1979?

- (A) Suresh Tendulkar (B) Y. K. Alagh
(C) C. Rangarajan (D) V. M. Dandekar

2. India Vietnam Coast Guards 7th High-Level Meeting In Chennai. In context to the same tell us, which in-service missile corvette did India gift to the Vietnam People's Navy in 2023 to boost maritime security?

- (A) INS Khukri (B) INS Kirpan
(C) INS Khanjar (D) INS Kora

3. UNDP India and HUL Partner for 50,000 Safai Mitras. In context to the same tell us, In which year did the United Nations Development Programme (UNDP) begin its work and operations in India?

- (A) 1947 (B) 1951
(C) 1965 (D) 1972

4. Arctic Warming Accelerates Tundra Greening and Shrub Expansion, Signaling Rapid Ecosystem Shifts. In context to the same tell us, what is the term for the process of taller plants and shrubs expanding into the warming Arctic tundra?

- (A) Desertification (B) Biomagnification
(C) Eutrophication (D) Shrubification

5. Banas Dairy Suzuki And NDDB Inaugurate Bio-CNG Plant In Banaskantha. In context to the same tell us, which biological process is used to break down organic waste into biogas during Bio-CNG production?

- (A) Aerobic Respiration (B) Fractional Distillation
(C) Anaerobic Digestion (D) Pyrolysis

6. Global Land Conservation Summit Concludes in Mongolia as Egypt Prepares to Host UNCCD COP18. Consider the following statements regarding the international framework and partnerships under the UNCCD:

- (1) The United Nations Convention to Combat

Desertification has 197 Parties, including the European Union and India.

(2) The New Delhi Declaration was adopted during the UNCCD COP14 hosted by India in 2019.

(3) The Business4Land Initiative was launched at COP16 in Riyadh to provide \$2.15 billion in public finance.

Which of the above is/are correct?

- (A) Only (1) and (3) (B) Only (1) and (2)
(C) Only (2) and (3) (D) None of the above

7. Sarnath Inscribed on UNESCO World Heritage List at 48th Session in South Korea.

Consider the following statements regarding the UNESCO recognition and heritage profile of Sarnath:

(1) Sarnath was listed on India's Tentative List of UNESCO World Heritage Sites in 1998.

(2) With Sarnath's inclusion, all four major Buddhist pilgrimage sites associated with Buddha are now UNESCO World Heritage Sites.

(3) The archaeological site reflects nearly 16 centuries of continuous development from the Pre-Mauryan period to the 12th century CE.

Which of the above is/are correct?

- (A) Only (1) and (3) (B) Only (1) and (2)
(C) Only (2) and (3) (D) None of the above

8. Avalanche in Nepal Triggers Trishuli Flash Floods, Forming Barrier Lakes Along Tibet Border.

Consider the following statements regarding barrier lakes and their associated hazards:

(1) A barrier lake is formed in a river valley when landslides, rockfalls, or avalanches block a watercourse.

(2) Landslide Lake Outburst Floods (LLOFs) occur when naturally dammed water gradually evaporates without breaching the debris wall.

(3) The sudden breaching of a barrier lake releases massive debris and water, causing catastrophic downstream flooding similar to a GLOF.

Which of the above is/are correct?

- (A) Only (1) and (3) (B) Only (1) and (2)
(C) Only (2) and (3) (D) None of the above

1-{B} - 2-{B} - 3-{B} - 4-{D} - 5-{C} - 6-{B} - 7-{A} 8-{A}



DAILY GENERAL STUDIES QUIZ



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Tuesday, 01 September 2026

PHYSICS

1. The concept of "zero-point energy" in quantum mechanics means:

- (A) Complete absence of energy at absolute zero
- (B) Minimum energy possessed by a quantum system even in the lowest state
- (C) Energy produced only by nuclear reactions
- (D) Energy loss due to radiation

2. The Doppler effect for electromagnetic waves differs from sound waves because:

- (A) Light does not require a medium for propagation
- (B) Light has no frequency
- (C) Sound travels faster than light
- (D) Electromagnetic waves cannot show Doppler effect

3. The existence of energy bands in solids is explained by:

- (A) Interaction of electrons in a crystal lattice
- (B) Absence of atomic structure
- (C) Gravitational attraction between atoms
- (D) Nuclear decay

4. The fundamental carrier particle of electromagnetic interaction is:

- (A) Electron
- (B) Photon
- (C) Neutrino
- (D) Proton

5. The main reason nuclear fusion releases enormous energy is:

- (A) Conversion of mass into energy
- (B) Increase in electrical resistance
- (C) Creation of electrons only

(D) Reduction of gravitational force

6. The principle of superposition is applicable to:

- (A) Only nonlinear systems
- (B) Linear physical systems
- (C) Only gravitational systems
- (D) Chemical reactions only

7. The discovery of neutron helped explain:

- (A) Atomic charge only
- (B) Nuclear mass and isotopes
- (C) Electron motion in orbit
- (D) Electromagnetic radiation

8. The reason optical fibres transmit signals with very low loss is:

- (A) Total internal reflection
- (B) Complete absorption of light
- (C) Increase in wavelength
- (D) Absence of photons

9. The "standard model of particle physics" describes:

- (A) Only gravitational interaction
- (B) Fundamental particles and three fundamental forces
- (C) Motion of planets only
- (D) Chemical bonding only

10. The phenomenon of pair production demonstrates conversion of:

- (A) Heat into electricity
- (B) Energy into matter
- (C) Matter into sound
- (D) Magnetic field into charge

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Tuesday, 01 September 2026

MAJOR DAMS OF THE WORLD

1. INTRODUCTION



Dams are important structures that control the flow of rivers and store water. After independence, large dams were developed in India for irrigation, hydropower generation, drinking water, flood control and navigation.

The International Commission on Large Dams (ICOLD) World Register includes more than 55,000 large dams.

According to ICOLD, a dam with a height of 15 meters or more, or a dam between 5–15 meters with certain specified storage criteria, is classified as a "Large Dam".

3. ECONOMIC & STRATEGIC IMPORTANCE



Energy Security: Three Gorges, Itaipu and GERD provide large-scale low-carbon electricity.



Food Security: Projects like Aswan, Tarbela and Atatürk support irrigation.



Flood Control: Regulation of monsoon/seasonal river flows.



Navigation & Regional Development: Especially on rivers like Yangtze.



Large reservoirs support fisheries, tourism and industrial development.

2. MAJOR DAMS OF THE WORLD – RIVER, COUNTRY & YEAR

Dam	River	Country/Location	Construction/Completion	Key Feature	Image
Three Gorges Dam	Yangtze	China	Construction 1994; main dam 2006	22,500 MW, the world's largest installed capacity hydropower project	
Itaipu Dam	Paraná	Brazil–Paraguay	Power generation since 1984	Binational project; approximately 14,000 MW	
Aswan High Dam	Nile	Egypt	1970	Lake Nasser; flood control, irrigation and hydropower	
Hoover Dam	Colorado	USA	1936	Nevada–Arizona region; creation of Lake Mead	
Tarbela Dam	Indus	Pakistan	Construction 1968–1976	One of the world's largest earth & rock-fill dams; part of Indus Basin Project	
Kariba Dam	Zambezi	Zambia–Zimbabwe	1959	Creation of Lake Kariba and binational hydropower	
Akosombo Dam	Volta	Ghana	1965	Creation of Lake Volta	
Atatürk Dam	Euphrates	Türkiye	1992	GAP project; irrigation and hydropower	
GERD	Blue Nile	Ethiopia	Construction 2011; inauguration 9 September 2025	Africa's largest hydroelectric facility; 5,150 MW designed capacity	

4. GEOPOLITICAL IMPORTANCE – TRANSBOUNDARY WATER POLITICS



- GERD–Blue Nile: Symbol of energy and development for Ethiopia, while downstream Egypt is concerned about water security. Even after its inauguration in 2025, disputes over operation and water-sharing continue.
- Tarbela–Indus: Developed after the 1960 Indus Waters Treaty as part of the Indus Basin Project.
- Itaipu: A major example of Transboundary Cooperation between Brazil and Paraguay.



5. ENVIRONMENTAL & SOCIAL CHALLENGES

- Large-scale displacement and rehabilitation.
- Obstruction to river ecology and fish migration.
- Sedimentation reduces reservoir capacity.
- Reduced sediment and nutrient flow in downstream areas.
- Loss of forests and biodiversity.
- Increasing risk to dam operation and safety due to Extreme Floods and Droughts caused by climate change.

6. CHRONOLOGY (KEY TIMELINE)

- 1936 – Hoover
- 1959 – Kariba
- 1965 – Akosombo
- 1970 – Aswan
- 1976 – Tarbela
- 1984 – Itaipu
- 1992 – Atatürk
- 2006 – Three Gorges
- 2025 – GERD inauguration



7. CONCLUSION



Large dams are powerful tools for energy security, irrigation and economic development across the world. However, their benefits must be viewed in the context of displacement, ecological damage and international water disputes.

Future policy should be based on Integrated River Basin Management + Environmental Flows + Dam Safety + Benefit Sharing + Transboundary Water Cooperation.



UPSC KEYWORDS:

Hydro-politics • Water Diplomacy • Transboundary Rivers • Water–Energy–Food Nexus
Environmental Flow • Sedimentation • Climate Resilience • Benefit Sharing • Integrated River Basin Management



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TOPIC OF THE DAY

Tuesday, 01 September 2026

SACU – Southern African Customs Union

Why in News?

India and the **Southern African Customs Union** signed Terms of Reference on August 12, 2026, to formally launch negotiations for a **Preferential Trade Agreement (PTA)** in New Delhi.



Expository: -

Introduction-

- The **Southern African Customs Union (SACU)** is an **African regional economic organization** and is the **world's oldest customs union**.
- It creates a **single customs territory** among its member countries, where goods move freely among themselves and a uniform tariff is applied on imports from outside countries.

Establishment (1910)-

- SACU was established in **1910**, during the colonial era.
- It was formed through an agreement between the **Union of South Africa** and the then **High Commission Territories (Basutoland, Bechuanaland, and Swaziland — today's Lesotho, Botswana, and Eswatini)**.
- It is therefore considered the **"world's oldest existing customs union."**
- The agreement was revised after renegotiation in **1969**, and a comprehensive new agreement was reached in **2002**, which came into effect in **2004**, giving smaller member countries greater participation in decision-making and revenue-sharing.

Member Countries (5 Countries)-

- **South Africa, Botswana, Lesotho, Namibia, Eswatini** — formerly Swaziland

Objectives

- Facilitating the **free movement** of goods among member countries.
- Maintaining a **Common External Tariff** on imports from non-member countries.
- Promoting **regional economic integration** and cooperation.
- Ensuring **equitable revenue sharing** among member countries.
- Promoting **industrial development and diversification** of member economies.
- Establishing **fair competition** and coordination in trade policies.

Structure of SACU-

- According to the 2002 Agreement, SACU's institutional structure is as follows:
- **Council of Ministers** – the supreme decision-making body, comprising ministers from each member country.
- **Customs Union Commission** – senior officials who oversee the implementation of decisions.
- **Secretariat** – located in **Windhoek, Namibia**, responsible for day-to-day administrative functions.
- **Tariff Board** – a body that makes recommendations on tariffs and trade measures.

- **Technical Liaison Committees** – covering areas such as agriculture, customs, trade, and industry.
- **Tribunal** – for dispute resolution among member countries.

Functions / How It Works-

- Goods traded within SACU move **duty-free** across borders.
- A **Common External Tariff (CET)** is applied uniformly to goods imported from non-member countries.
- Customs revenue received from non-member countries is deposited into a **Common Revenue Pool**.
- Member countries coordinate policies on **trade defense measures** (anti-dumping, countervailing measures, safeguards).
- **South Africa**, being the group's largest and most industrialized economy, has historically played a dominant role in tariff-setting, though joint decision-making has been promoted since the 2002 agreement.

Revenue Sharing Formula-

- Under the 2002 Agreement, customs and revenue are shared based on three components:
- **Customs Component** – based on each member country's share of intra-SACU trade.
- **Excise Component** – based on each country's share of total SACU GDP.



MAP OF THE DAY BHARAT

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VELIKONDA RANGE

Eastern Ghats – Andhra Pradesh



1. LOCATION & ORIENTATION



- Located in south-eastern Andhra Pradesh, forming part of the middle section of the Eastern Ghats.
- The range trends north-south and forms the eastern flank of the Eastern Ghats at that point.
- It lies east of the parallel Palkonda-Lankamalla-Nallamalla ranges.
- The higher Palkonda-Lankamalla-Nallamalla ranges are in the west and the lower Velikonda Range is in the east.

2. GEOLOGICAL ORIGIN



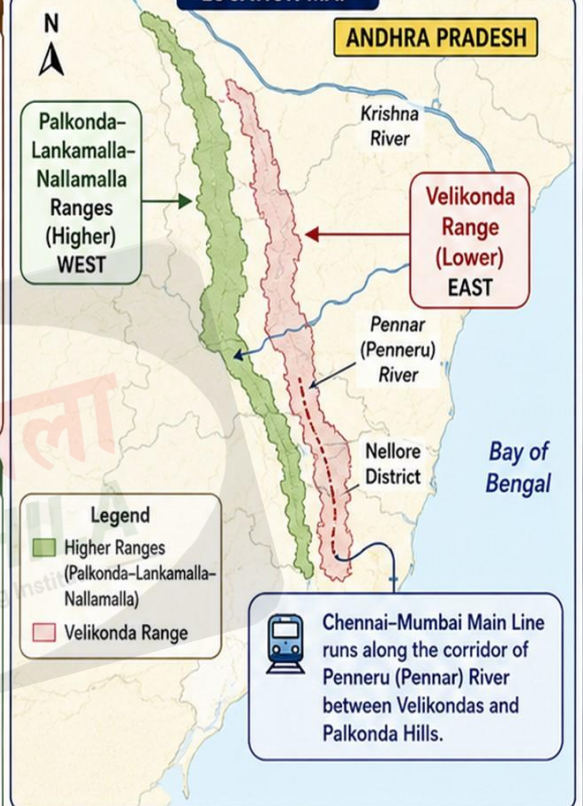
- The Velikondas were elevated during the Cambrian Period (about 540 to 490 million years ago).
- They are relicts of ancient mountains that were eroded and dissected by numerous streams.



Important Angle (UPSC):

This supports the fact that the Eastern Ghats are older than the Himalayas but geologically discontinuous.

LOCATION MAP



3. ELEVATION



- The Velikondas reach an elevation of **2,500 to 3,000 feet (750 to 900 metres)**.
- Relatively low compared to the Western Ghats.

4. DRAINAGE & RIVER GAPS



- Rivers navigate through the hills by narrow gaps, usually marked by rapids.
- The main railway from Chennai to Mumbai runs along the corridor formed by the **Penneru (Pennar) River** between the Velikondas and the Palkonda Hills to the south.

- The Velikonda Range lies between the Krishna and Pennar rivers.
- A gorge is formed between it and the Palkonda Hills where the **Punchu and Cheyyeru** rivers join.
- The Velikonda range eventually descends to the coastal plains in the **northern Nellore district**.

5. POPULATION / HUMAN GEOGRAPHY



- The hills are sparsely wooded and almost devoid of human population except for a few scattered groups of **Chenchu peoples**.
- The valleys, however, are moderately populated.
- The Chenchu tribal community is an important UPSC detail (also linked with Nallamala forests).

6. CONTEXT WITHIN EASTERN GHATS SYSTEM



- The Eastern Ghats comprise a series of discontinuous, low-lying hills – **Velikonda, Odisha hills (Maliya), Nallamala, Palakonda, Javadi, Shevaroy**.
- These hill groups neither have structural unity nor physiographic continuity, hence treated as independent units.
- The Eastern Ghats almost disappear between the Godavari and the Krishna, and it is only in the northern part, between the Mahanadi and the Godavari, that they exhibit true mountain character.

EASTERN GHATS – KEY FACTS (OVERALL CONTEXT)

Length 1,750 km (North-South)	Width 100–200 km (East-West)	Area 75,000 km ² (approx.)	Highest Peak Arma Konda (1,680 m) in Andhra Pradesh	Nature Discontinuous, low-lying hills	Geological Age Very old – older than Himalayas
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★ **UPSC Relevance:** Physical Geography | Drainage & Gaps | Tribal Communities | Infrastructure | Eastern Ghats Characteristics

MAP OF THE DAY WORLD

Tuesday, 01 September 2026

MURRAY-DARLING BASIN, AUSTRALIA

The Murray–Darling Basin, located in the inland south-eastern part of Australia, includes major rivers, wetlands, floodplains, lakes and diverse habitats, making it vital for water, agriculture and biodiversity.



LOCATION: The Murray–Darling Basin is in south-eastern Australia. It spans New South Wales, Queensland, Victoria, South Australia and the Australian Capital Territory.



SIZE: The basin covers more than 1 million square kilometres, about one-seventh of Australia's total land area. Its rivers have a total length of about 77,000 kilometres.



MAJOR RIVERS:

- The **Murray River** is Australia's longest river, 2,508 km in length.
- The **Darling River** is Australia's third longest river and joins the Murray River near the NSW–Victoria border.



RIVER SYSTEM: The basin includes 23 rivers, including the Murray, Darling, Murrumbidgee, Lachlan and Goulburn. The total length of rivers in the basin is about 77,000 km.



WETLANDS:

- The basin has more than 30,000 wetlands.
- Eleven of these are protected under the Ramsar Convention, while 16 wetlands are of international importance.



AGRICULTURE: The basin contributes about 40% of Australia's agricultural production.



VEGETATION: Riverine red gum forests, floodplain forests, woodlands, shrublands, grasslands, saltbush plains and herb fields are found throughout the basin. Native plants reduce soil erosion, filter water and provide habitat for wildlife.



ENVIRONMENTAL CHALLENGES: Reduced river flows, drought, water extraction, salinity, algal blooms and invasive species have impacted the basin's ecosystems. Carp can degrade water quality and compete with native fish.



BIODIVERSITY (FAUNA)



Murray cod



Golden perch



Platypus



Koala



Red kangaroo



Eastern grey kangaroo



Azure kingfisher



River Murray short-necked turtle



CULTURAL SIGNIFICANCE: More than 50 Aboriginal communities have a deep cultural connection with the basin. Its waterways support cultural practices, ceremonies, fishing, hunting and responsibilities for caring for Country.



WATER MANAGEMENT: The Murray–Darling Basin Plan was developed to address concerns about river health due to prolonged droughts and over-extraction. The Murray–Darling Basin Authority implements, monitors and reports on the Plan.



KEY
FACTS



Area:
More than
1 million km²



Total river length:
About
77,000 km



Wetlands:
More than 30,000
(11 Ramsar sites)



Agricultural production:
Contributes about
40% of Australia's total



Cultural connection:
Linked to more than
50 Aboriginal communities



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DAILY CURRENT AFFAIRS QUIZ

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1. National Sports Day 2026, observed to commemorate the birth anniversary of Major Dhyan Chand, was celebrated nationally on which date?

- (A) 27 August (B) 28 August
(C) 29 August (D) 30 August

2. Which institution launched the new three-team invasion sport 'Phiball' in August 2026?

- (A) IIT Madras (B) IIT Delhi
(C) IIT Bombay (D) IIT Kanpur

3. Which Indian state has launched the country's first state-level Sports Genomics Programme?

- (A) Maharashtra (B) Gujarat
(C) Karnataka (D) Tamil Nadu

4. Which country conferred its highest honour for foreign leaders, the "Oliy Darajali Do'stlik" Order, on Prime Minister Narendra Modi in August 2026?

- (A) Kazakhstan (B) Tajikistan
(C) Kyrgyzstan (D) Uzbekistan

5. Which team won the FIH Men's Hockey World Cup for the second consecutive time?

- (A) Germany (B) Argentina
(C) Spain (D) Netherlands

6. Which department notified the Legal Metrology (Indian Standard Time) Rules,

2026, making IST the common official time reference in India?

- (A) Department of Science and Technology
(B) Department of Consumer Affairs
(C) Ministry of Communications
(D) Department of Telecommunications

7. When is National Small Industry Day observed in India?

- (A) August 27 (B) August 28
(C) August 29 (D) August 30

8. Under which body were India's first uniform mortuary standards finalised in August 2026?

- (A) National Medical Commission
(B) Central Clinical Standards Authority
(C) National Council for Clinical Establishments
(D) National Health Standards Authority

9. Who represented India at the 25th meeting of Special Representatives on the India-China boundary issue?

- (A) Rajnath Singh (B) Ajit Doval
(C) Vikram Misri (D) S. Jaishankar

10. EOS-05, also known as GISAT-1A, is an Earth observation satellite of which organisation?

- (A) Indian Space Research Organisation
(B) National Remote Sensing Centre
(C) Indian Institute of Space Science
(D) Department of Space Applications

1-{C} - 2-{A} - 3-{B} - 4-{D} - 5-{A} - 6-{B} - 7-{D} - 8-{C} - 9-{B} - 10-{A}



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