GYANSHILA IAS
Learning Institute

DAILY GENERAL AWARENESS QUIZ



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DIRECTOR SHRI MATI SANGAM SINGH | MANAGING DIRECTOR SRI ADITYA SINGH GAUTAM

Tuesday, 22 September 2026

1. Tharoor calls new Parliament building 'soulless conference centre', lacking in intimacy. In context to Parliament tell us, which of the following is correct regarding executive in India?
(A) The Prime Minister and his council of ministers.
(B) The Prime Minister is the head of the executive.
(C) Parliament is part of the executive in India.
(D) The Executive can not frame rules and regulations.

2. Kathua Railway Station renamed as Martyr Captain Sunil Kumar Choudhary Kathua Station. In context to the same tell us, which of the following railway stations was named Ekta Nagar railway station?
(A) Dabhoi Railway Station
(B) Anand Railway Station
(C) Dadar Railway Station
(D) Kevadiya Railway Station

3. Union Minister Pralhad Joshi congratulates IREDA on fifth consecutive MoU excellence rating. In context to the same tell us, IREDA was awarded "Mini Ratna" (Category-I) status in which year?
(A) 2011 **(B)** 2015
(C) 2018 **(D)** 2010

4. ASEAN, India agree to deepen cooperation on climate-resilient agriculture, digital innovation. In context to the same tell us, Which of the following statement is NOT correct about the ASEAN members?
(A) Indonesia has highest population among the ASEAN members.
(B) Singapore has highest Per Capita GDP among the ASEAN members.
(C) Cambodia has lowest nominal GDP among the ASEAN members.
(D) Brunei has the lowest population among the ASEAN members.

5. Kochi to Host 9th International Spice Conference 2026. In context to the same tell us, which state is known as the land of spices?
(A) Rajasthan **(B)** India
(C) Kerala **(D)** Odisha

6. WOAH Grants New Animal Health Recognitions and Endorses Control Programmes at 93rd General Session.
Consider the following statements regarding World Organisation for Animal Health -
(1) In 2018, it had a total of 182 Member Countries.
(2) India is not a member of World Organisation for Animal Health.
(3) It is headquartered in Paris, France.
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. RBI revises draft norms for Kisan Credit Card for broader loan support to farmers.
Consider the following statements about Kisan Credit Card Scheme:
(1) The Kisan Credit Card Scheme was launched in the year 2001.
(2) The Scheme provides adequate and timely credit support to the farmers for their cultivation needs.
Which of the above is/are correct?
(A) Only (1) **(B)** Only (1) and (2)
(C) Only (2) **(D)** None of the above

8. Four States Sign One-Time Settlement to Resolve Decades-Old Sardar Sarovar Project Dues.
Consider the following statements -
(1) The Sardar Sarovar project is the Gravity dam on Narmada River crossing Gujarat.
(2) The Project was conceived in 1977 majorly.
(3) It is also known as Rewa.
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-{A} - 2-{D} - 3-{B} - 4-{C} - 5-{C} - 6-{A} - 7-{C} 8-{A}

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DAILY GENERAL STUDIES QUIZ

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Tuesday, 22 September 2026

CHEMISTRY

1. Which factor most strongly determines whether an ionic compound acquires appreciable covalent character?
(A) Number of neutrons in the cation
(B) Polarising power of the cation and polarisability of the anion
(C) Atomic mass of the anion only
(D) Number of isotopes of the elements

2. Why does the solubility of many amino acids become minimum near their isoelectric point?
(A) They become strongly acidic
(B) Their net charge approaches zero, reducing electrostatic interaction with water
(C) Their peptide bonds are hydrolysed
(D) Their molecular mass decreases sharply

3. Why cannot aqueous aluminium salts be electrolysed efficiently to obtain metallic aluminium?
(A) Aluminium ions are not present in water
(B) Water is preferentially reduced before Al^{3+} under ordinary aqueous conditions
(C) Aluminium has no positive oxidation state
(D) Aluminium metal dissolves instantly in all solvents

4. Acidic dissolution of tooth enamel begins when the surrounding solution becomes sufficiently undersaturated with respect to:
(A) Hydroxyapatite (B) Sodium chloride
(C) Calcium sulphate (D) Potassium nitrate

5. Which nuclear transformation can convert one isobar into another isobar without changing the mass number?
(A) Alpha decay
(B) Beta decay
(C) Neutron emission
(D) Proton emission accompanied by neutron loss

6. Why is XeF_2 approximately linear despite xenon having five electron-pair domains around it?
(A) All five domains are bonding pairs
(B) Three lone pairs occupy equatorial positions in a trigonal-bipyramidal arrangement
(C) Two lone pairs occupy axial positions
(D) Xenon undergoes sp^3 hybridisation only

7. Which property of clay minerals is most directly responsible for their ability to retain nutrient cations such as K^+, Ca^{2+} and Mg^{2+}?
(A) Cation-exchange capacity
(B) Radioactivity
(C) Optical transparency
(D) Metallic conductivity

8. Why does dilution of concentrated sulphuric acid release a large amount of heat?
(A) Sulphuric acid undergoes nuclear fission
(B) Hydration of ions is strongly exothermic
(C) Water decomposes into hydrogen and oxygen
(D) Sulphur precipitates from the solution

9. Why are deuterium and tritium particularly suitable fuels for controlled fusion experiments?
(A) They possess the highest atomic numbers
(B) Their nuclei can undergo fusion at comparatively attainable temperatures with a relatively high reaction probability
(C) They contain no neutrons
(D) They undergo spontaneous fission at room temperature

10. The amphoteric behaviour of PbO is best demonstrated by its ability to:
(A) React only with oxidising acids
(B) Behave as a base toward acids and as an acid toward strong bases
(C) React only with neutral salts
(D) Remain chemically inert in all acid-base reactions

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

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DAILY STATIC GK ONE-LINERS

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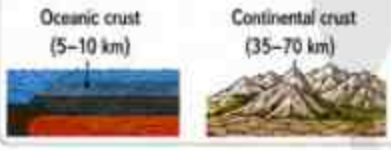
Tuesday, 22 September 2026

INTERIOR OF THE EARTH - PART 2

DETAILS, FEATURES AND SIGNIFICANCE

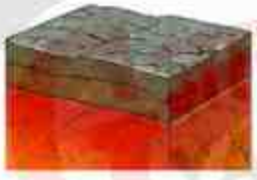
1. CRUST – DETAILS

- Thickness: 5 to 70 km.
- Oceanic crust:
  - ✓ Thickness: 5–10 km
  - ✓ Basaltic, denser
- Continental crust:
  - ✓ Thickness: 35–70 km
  - ✓ Granitic, less dense
- Density:
  - ✓ Oceanic: More dense (≈3.0 g/cm³)
  - ✓ Continental: Less dense (≈2.7 g/cm³)
- Composition:
  - ✓ Oceanic: Basaltic (Mafic)
  - ✓ Continental: Granitic (Felsic)



2. MANTLE – DETAILS AND STRUCTURE

- Extends from 2,890 km depth to the core–mantle boundary – the thickest layer of Earth.
- Composition: Iron and magnesium–rich silicate rocks (e.g., peridotite).
- Solid but behaves slowly over long geological time due to very high pressure and temperature.
- Temperature: Upper mantle ~1,000°C to lower mantle ~3,700°C.
- Mantle divided into two parts:
  - ✓ Upper Mantle
  - ✓ Lower Mantle



Thickness: ~2,890 km

Volume: ~84% of Earth's total volume

3. DIVISION OF THE MANTLE

Part	Features
Upper Mantle (0 – 670 km)	• Contains lithosphere and asthenosphere. • Upper part is rigid, brittle. • Temperature: ~500°C to ~1,600°C
Transition Zone (670 – 2,890 km)	• Minerals change under high pressure (Olivine → Wadsleyite → Ringwoodite) • High–pressure mineral phase.
Lower Mantle (2,890 km to core)	• Extremely hot and dense. • More rigid and less plastic. • Convection currents flow slowly.

4. OUTER CORE – DETAILS

- Depth: Between 2,890 km to 5,150 km.
- Thickness: About 2,260 km.
- State: Liquid.
- Composition: Iron (Fe) and Nickel (Ni).
- Temperature: ~4,000°C to ~6,000°C.
- Convection of liquid metals + Earth's rotation generates the geodynamo.
- Geodynamo produces Earth's magnetic field.



5. INNER CORE – DETAILS

- Depth: From 5,150 km to the center of Earth.
- Radius: About 1,220 km.
- State: Solid.
- Composition: Iron (Fe) and Nickel (Ni).
- Temperature: More than ~5,000°C.
- Pressure: Very high (>360 GPa) keeps it in solid state.
- 1936: Inge Lehmann proved its existence through seismic waves.



Inge Lehmann (1936)

6. CONCLUSIONS AND SIGNIFNFICANCE

- ☑ Understanding Earth's interior is possible mainly through seismic waves.
- ☑ Composition (state, temperature, density) of each layer varies. (Volcanoes, earthquakes, mountains are results of this variation).
- ☑ Convection in outer core generates Earth's magnetic field, which protects life from solar radiation.
- ☑ Plate tectonics, volcanic activity and mountain formation are driven by mantle convection.
- ☑ Knowledge of Earth's interior is important for natural resource exploration, energy research and disaster prediction.



QUICK SUMMARY


Earth's total radius: 6,371 km


Seismic waves are the main source to know Earth's interior


4 main layers: Crust, Mantle, Outer Core, Inner Core


Temperature & pressure increase with depth


Outer core convection → (Geodynamo) = Magnetic field


Plate tectonics, volcanism & mountains are due to mantle convection

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TOPIC OF THE DAY

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Tuesday, 22 September 2026

Delimitation



Why in News?

The Supreme Court questioned the delay in delimitation in **Arunachal Pradesh, Assam, Manipur and Nagaland**, emphasizing the need to initiate a **fair and equitable process** in accordance with the **statutory mandate**.

Expository: -

What is Delimitation?-

- Delimitation refers to the **redrawing of geographical boundaries of electoral constituencies**.
- It is based on the latest **population data from the Census**.
- Its objective is to ensure **equal and fair representation** in legislative bodies.
- The process is carried out by the **Delimitation Commission**.

Delimitation Commission-

- The Delimitation Commission is an **independent statutory body** constituted by the Central Government.
- Its primary function is to determine the boundaries of **Lok Sabha and State Assembly constituencies**.
- The Commission is generally headed by a **former Supreme Court judge**.
- The orders of the Delimitation Commission are **final and binding** and generally cannot be challenged in court.

Constitutional Basis-

- **Article 82** — Provides for the **readjustment of Lok Sabha seats and constituencies** after each Census, as provided by law enacted by Parliament.
- **Article 170** — Deals with the **readjustment of State Legislative Assembly constituencies**.
- The **Delimitation Acts** enacted by Parliament specify the Commission's composition, powers and procedure.

Historical Timeline of Delimitation-

- **1952** — The first Delimitation Commission was constituted in independent India.
- **1963** — The second major delimitation exercise was undertaken.
- **1973** — The third Delimitation Commission was constituted.
- **1976** — Delimitation was **deferred during the Emergency period**.
- **2002** — A new Delimitation Commission was constituted based on the **2001 Census**.
- **2008** — Delimitation in the **Northeastern States and Jammu & Kashmir** was deferred due to regional circumstances.

Importance of Delimitation-

- Ensures **representation according to population** in electoral constituencies.
- Facilitates the **readjustment of electoral boundaries** according to population changes.
- Strengthens **equal representation** in a democratic system.
- Helps make the electoral process more **fair and representative**.

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MAP OF THE DAY BHARAT

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Tuesday, 22 September 2026

Sankh River

About the Sankh River

- The Sankh River flows across **Jharkhand, Chhattisgarh** and **Odisha** states in India. The river flows for **240 km** (150 mi) before it meets the **Koel River** in Odisha.
- It is also known locally as the **Shankh River** and is a key **tributary** in the **Brahmani River system.**

Key Features

Source	:	Starts **1,000 metres** above sea level in **Lupungpat village, Gumla district** (Jharkhand).
Flow in Jharkhand	:	Flows for **67.5 km** in **Jharkhand** before entering Chhattisgarh.
Flow in Chhattisgarh	:	Runs for about **50 km** in **Chhattisgarh** and enters **Jharkhand** again to flow for another **78 km.**
Final stretch	:	Enters **Odisha** and travels another **45 km** before merging with the Koel.
Confluence	:	The **South Koel** joins the Sankh River at **Vedavyas** near **Rourkela**, from where it is called the **Brahmani.**
Total Length	:	**240 km**

Sadni Falls

- The **60-metre** (200 ft) high **Sadni Falls** on the Sankh River is located at the edge of the **Ranchi plateau.**
- It is an example of a **scarp fall** or **knick line fall.**

Flowing Through Three States





Important Points

- **Flows through: Jharkhand, Chhattisgarh** and **Odisha.**
- **Tributary of: Brahmani River system** (via South Koel).
- **Total length: 240 km.**
- **Key feature: 60 m Sadni Falls** (scarp/knick-line fall).
- **Source: Lupungpat village**, Gumla district (Jharkhand).
- **Merges with Koel at: Vedavyas** (near Rourkela).

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MAP OF THE DAY WORLD

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Tuesday, 22 September 2026

Bab el-Mandeb Strait

A Strategic Chokepoint in the Red Sea

Why in the News?

- Amid the **escalating crisis in West Asia, Iran** has threatened to **weaponize** the strategic **Bab el-Mandeb Strait** alongside the **Strait of Hormuz**, posing a severe risk to **global maritime trade** and **energy security** if its territories are invaded.

Role of Non-State Actors

- The **Iran-aligned Houthis** in **Yemen** are geographically and militarily positioned to execute disruptions in the **Red Sea** and **Bab el-Mandeb**, effectively expanding the conflict's scope far beyond the **Persian Gulf** and the **Sea of Oman**.

What is Bab-el-Mandeb Strait?

- In Arabic, it translates to the **"Gate of Tears"** or **"Gate of Grief"**, historically referring to the dangers of navigating its waters.
- It is a narrow maritime chokepoint situated between the **Arabian Peninsula** and the **Horn of Africa**.
- It connects the **Red Sea** (to the northwest) to the **Gulf of Aden** and the **Arabian Sea/Indian Ocean** (to the southeast).

Bordering Nations

- It separates **Yemen** (on the Asian side) from **Djibouti** and **Eritrea** (on the African side).

Key Islands

- The strait is **20 miles (32 km)** wide and is divided into **two channels** by **Perim Island**, which belongs to **Yemen**.

Location





Economic Significance

- The **Red Sea** to the **Suez Canal** via the Bab-el-Mandeb is one of the world's most critical **maritime trade** routes.
- It is the **only entry point** to the **Red Sea** from the **Indian Ocean** and connects to the **Suez Canal**, forming a vital trade route between **Asia and Europe**.
- Bab-el-Mandeb is a key chokepoint for **crude oil, petroleum products** and **liquefied natural gas (LNG)** from the Persian Gulf to global markets.
- Approximately **10–12% of global trade** and nearly **30%** of global **container traffic** passes through here.
- When threatened, global shipping companies are forced to reroute vessels around the **Cape of Good Hope** (South Africa), adding **10 to 14 days** to the journey, increasing freight rates, insurance costs and ultimately causing inflation.

Key Takeaway

The Bab el-Mandeb Strait is a vital **global chokepoint** for **maritime trade** and **energy supplies**, here can have far-reaching **economic** and **strategic consequences**.

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DAILY CURRENT AFFAIRS QUIZ



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Tuesday, 22 September 2026

1. Flight Lieutenant Alfred Tyrone Cooke, who passed away in September 2026, was a recipient of which gallantry award?
(A) Param Vir Chakra (B) Maha Vir Chakra
(C) Vir Chakra (D) Kirti Chakra

2. Which disease is targeted by QDENGA, the vaccine developed by Takeda and approved in India?
(A) Dengue (B) Chikungunya
(C) Malaria (D) Encephalitis

3. Who has been appointed as the new Executive Director of the World Food Programme (WFP) in September 2026?
(A) Carl Skau (B) Luke J. Lindberg
(C) Qu Dongyu (D) David Beasley

4. International Red Panda Day 2026, held on the third Saturday of September, was observed on which date?
(A) 18 September 2026
(B) 19 September 2026
(C) 20 September 2026
(D) 21 September 2026

5. Which city will host the inaugural AIFF U15 Women's Youth League in 2026?
(A) Bengaluru (B) Mysuru
(C) Mangaluru (D) Belagavi

6. Who has been appointed as India's next Ambassador to the Republic of Cuba in September 2026?
(A) T. Armstrong Changsan
(B) Sanjay Kumar Verma
(C) Dinesh Bhatia
(D) Hansraj Singh Verma

7. Who won the gold medal in the men's trap event at the ISSF Junior World Cup Shotgun 2026 in Porpetto?
(A) Yugan Sakthivel Muthukumaar
(B) Simone Roncen
(C) Francesco Tanfoglio
(D) Andreas Pontikis

8. What are DARE cells associated with in the 2026 tissue-regeneration study?
(A) Blood clot formation
(B) Neural signal transmission
(C) Tissue regeneration
(D) Bone mineralisation

9. Which language was approved as Karnataka's second additional administrative language in September 2026?
(A) Kodava (B) Konkani
(C) Beary (D) Tulu

10. Who will lead the Indian delegation during the High-Level Week of the 81st UN General Assembly in 2026?
(A) Narendra Modi (B) S. Jaishankar
(C) Rajnath Singh (D) Amit Shah

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