

DAILY GENERAL AWARENESS QUIZ

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Saturday, 05 September 2026

1. World Coconut Day Observed Globally on September 2. In context to the same tell us, Which soil type is generally considered most ideal for the commercial cultivation of coconut palms?

- (A) Black Sandy Soil (B) Sandy Loam Soil
(C) Desert Arid Soil (D) Saline Clay Soil

2. AIIA Launches AyurVarta Digital Dialogue Series For Ayurveda Day. In context to the same tell us, which ancient treatise is primarily focused on internal medicine (Kaya Chikitsa)?

- (A) Sushruta Samhita (B) Madhava Nidana
(C) Ashtanga Hridayam (D) Charaka Samhita

3. Centre Slashes Sugar Stock Limit For Dealers To 2,000 Quintals. In context to the same tell us, which of the following conditions is most ideal for the commercial cultivation of sugarcane?

- (A) Cold climate with frost during early growth
(B) Hot and humid climate with rainfall of 75 cm to 100 cm
(C) Dry desert climate with low humidity
(D) Cold climate with heavy rainfall above 250 cm

4. Roger Federer Inducted Into International Tennis Hall Of Fame. In context to the same tell us, which Grand Slam tournament is historically played on a natural grass surface?

- (A) Australian Open (B) French Open
(C) US Open (D) Wimbledon

5. Indian Railways Approves ₹675 Crore For Kavach 4.0 Safety Upgrade. In context to the same tell us, which key tracking component installed along railway tracks enables the Kavach locomotive?

- (A) Radio Frequency Identification Tags
(B) Piezoelectric Sensors
(C) Infrared Transponders
(D) Ultrasonic Doppler Meters

6. SCO Summit in Bishkek: Kyrgyzstan Hosts 26th Heads of State Council & Inaugural "SCO Plus" Meeting. Consider the following statements regarding the Shanghai Cooperation Organisation (SCO):

(1) Belarus is the newest full member of the SCO, bringing the total number of member states to ten.

(2) The Regional Anti-Terrorist Structure (RATS), a permanent organ of the SCO, is headquartered in Beijing, China.

(3) SCO member states collectively represent over 40% of the world's population and approximately 25% of the global GDP.

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. Controversy in Haldwani: "Purification" Ritual After Dalit Leader's Rally Sparks Debate Over Article 17 Violations.

Consider the following statements regarding social and religious reform movements against untouchability:

- (1) Swami Dayananda Saraswati viewed untouchability as an ancient Vedic practice and created the Shuddhi Movement to enforce traditional caste boundaries.
(2) Saints of the Bhakti Movement, such as Kabir and Ravidas, rejected caste-based social exclusion through the concept of spiritual equality and personal devotion.
(3) The Self-Respect Movement, founded by Periyar in 1925, adopted a rationalist and anti-Brahminical approach to challenge caste-based religious authority.

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. Interim Government Anniversary: Remembering September 2, 1946, as India's First Step Toward Executive Self-Rule.

Consider the following statements regarding the Interim Government formed in 1946:

- (1) Lord Wavell served as the President of the Executive Council, while Jawaharlal Nehru was appointed as the Vice-President, acting as the de facto Prime Minister.
(2) The Interim Government functioned legally under the provisions of the Government of India Act, 1935, which completely stripped the Viceroy of veto powers.
(3) The Muslim League initially boycotted the Interim Government on September 2, 1946, but later joined the council in October 1946 with Liaquat Ali Khan holding the Finance portfolio.

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



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DAILY GENERAL STUDIES QUIZ

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CHEMISTRY

1. Which of the following compounds has the highest lattice energy?

- (A) NaCl
- (B) MgO
- (C) KCl
- (D) CaO

2. Which quantum number determines the shape of an orbital?

- (A) Principal quantum number (n)
- (B) Azimuthal quantum number (l)
- (C) Magnetic quantum number (m)
- (D) Spin quantum number (s)

3. Which of the following species is paramagnetic?

- (A) CO
- (B) N₂
- (C) O₂
- (D) C₂²⁻

4. The hybridisation of carbon in fullerene (C₆₀) is mainly:

- (A) sp
- (B) sp²
- (C) sp³
- (D) dsp²

5. Which of the following acids has the highest acidic strength?

- (A) HClO
- (B) HClO₂
- (C) HClO₃
- (D) HClO₄

6. Which law explains the relationship between pressure and volume of an ideal gas at constant temperature?

- (A) Charles' Law
- (B) Boyle's Law
- (C) Avogadro's Law
- (D) Graham's Law

7. Which metal is extracted by the electrolytic reduction of its molten salt?

- (A) Copper
- (B) Aluminium
- (C) Iron
- (D) Zinc

8. Which reagent is used to distinguish aldehydes from ketones?

- (A) Tollens' reagent
- (B) NaOH
- (C) H₂SO₄
- (D) KMnO₄ only

9. Which element has the highest first ionisation energy?

- (A) Lithium
- (B) Helium
- (C) Fluorine
- (D) Neon

10. In electrochemistry, the standard electrode potential is measured relative to:

- (A) Hydrogen electrode
- (B) Oxygen electrode
- (C) Chlorine electrode
- (D) Sodium electrode

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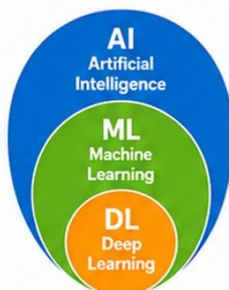


AI (ARTIFICIAL INTELLIGENCE), MACHINE LEARNING (ML) & DEEP LEARNING (DL)

EVOLUTION, LANGUAGES, ALGORITHMS, WORKFLOW, TYPES & FEATURES

1. INTRODUCTION

- Artificial Intelligence (AI)** is a branch of computer science that aims to create machines and software capable of learning, reasoning, decision making, and problem solving like humans.
- Machine Learning (ML)** is a subset of AI in which computers learn patterns from data and make predictions or decisions without being explicitly programmed for every rule.
- Deep Learning (DL)** is an advanced subset of ML that uses multi-layer Artificial Neural Networks (ANNs) to analyze complex data.



2. EVOLUTION

- 1950** British mathematician Alan Turing published the paper "Computing Machinery and Intelligence" and proposed the Turing Test.
- 1956** At the Dartmouth Summer Research Project on Artificial Intelligence, John McCarthy used the term "Artificial Intelligence" for the first time. He is considered the Father of AI.
- 1980s** Expert Systems started being used commercially.
- 1997** IBM Deep Blue defeated world chess champion Garry Kasparov.
- 2012** AlexNet achieved remarkable success in the ImageNet competition, marking the beginning of the widespread practical use of Deep Learning.
- Present** Generative AI, Large Language Models (LLMs), Computer Vision, Robotics, Healthcare and Autonomous Vehicles are rapidly expanding the scope of AI.

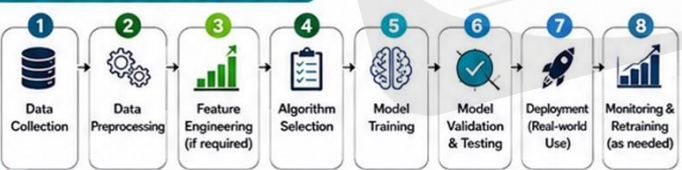
3. PROGRAMMING LANGUAGES

Python	R	Java	C++	Julia
Most popular language for AI/ML (TensorFlow, PyTorch, Scikit-learn)	For statistical analysis and data science	For enterprise applications	For high performance and speed in AI systems	For scientific and high performance computing

4. ALGORITHMS

Linear Regression Numerical prediction	Logistic Regression Classification	Decision Tree & Random Forest Decision based analysis	SVM Classification
K-Means Clustering Data grouping	ANN (Artificial Neural Network) 	CNN (Convolutional Neural Network) Image recognition	RNN/LSTM & Transformer Language, translation and Generative AI

5. HOW AI, ML & DL WORK?



6. TYPES

Artificial Intelligence (AI)	Machine Learning (ML)	Deep Learning (DL)
ANI (Artificial Narrow Intelligence) AI designed for a specific task (currently in use)	Supervised Learning (Learn from labeled data)	Feedforward Neural Network (FNN)
AGI (Artificial General Intelligence) Human-like general intelligence; still under development	Unsupervised Learning (Learn from unlabeled data)	Convolutional Neural Network (CNN)
ASI (Artificial Super Intelligence) Intelligence beyond human; currently a theoretical concept	Semi-supervised Learning (Learn from both labeled & unlabeled data)	Recurrent Neural Network (RNN/LSTM)
	Reinforcement Learning (Learn through rewards & penalties)	Transformer based Models

7. KEY FEATURES

- Fast and accurate analysis of large volumes of data.
- Ability to learn automatically from experience and data.
- High accuracy in decision making and prediction.
- Effective in Natural Language Processing (NLP), Computer Vision and Speech Recognition.
- Wide applications in Healthcare, Agriculture, Education, Banking, Industry, Defense, E-Governance and Research.

IMPORTANT FACTS FOR EXAMS

Father of AI John McCarthy	First use of the term AI – 1956, Dartmouth Conference	Turing Test – Alan Turing (1950)	Machine Learning – Subset of AI	Deep Learning – Advanced subset of ML
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FOUNDATION OF MODERN AI



TOPIC OF THE DAY

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Gene-Edited Rice

Why in News?

India introduced the **world's first gene-edited rice** varieties, **DRR Dhan 100 (Kamala)** and **Pusa DST Rice 1**, which boost yield, save water, and resist climate stress.

Expository: -

What is Gene-Edited Rice?-

- Gene editing involves making **targeted and precise ch.**
- CRISPR-Cas9** is one of the major technologies used for targeted genome e
- Unlike conventional GM technology, gene editing can produce **transgene-free plants**.
- It can be used to improve traits such as **yield, drought tolerance and salinity tolerance**.

Difference — GM vs Gene Edited-

- GM crops** generally involve the introduction of **foreign** into an organism.
- Gene editing** makes targeted changes to the plant's existing DNA and may not involve foreign DNA.
- Gene editing allows **precise modification of specific genes** associated with desired traits.
- In India, certain **SDN-1 and SDN-2 genome-edited plants** are covered under a simplified regulatory approach.

Techniques Used — CRISPR-Cas9, SDN1, SDN2-

- CRISPR-Cas9** uses a guide RNA and Cas9 enzyme to target a specific DNA sequence.
- SDN-1** involves targeted DNA cutting followed by natural repair, generally producing small mutations such as insertions or deletions.
- SDN-2** introduces a specific, small and predefined change at the targeted DNA site.
- India has issued specific **Standard Operating Procedures (SOPs)** for the regulatory review of SDN-1 and SDN-2 plants.

Major Gene-Edited Varieties in India — Kamala & Pusa DST-

- DRR Rice 100 (Kamala)** was developed by **ICAR-Indian Institute of Rice Research (IIRR), Hyderabad**.
- Kamala was developed from the popular rice variety **Samba Mahsuri (BPT 5204)**.
- Pusa DST Rice 1** was developed by **ICAR-Indian Agricultural Research Institute (IARI), New Delhi** from **MTU 1010**.

- Pusa DST Rice 1 targets the **DST (Drought and Salt Tolerance) gene** for improved stress tolerance.

Important Genes Edited — Yield, Drought & Salinity-

- CKX2 gene:** Targeted in Kamala to increase the **number of grains per panicle** and improve yield.
- DST gene:** Edited in Pusa DST Rice 1 to improve **drought and salinity tolerance**.
- TB1 (Teosinte Branched1):** Associated with **tillering and grain-yield-related traits** and has been studied through genome editing.
- ICAR research has also explored **multiple yield- and stress-related genes** for rice improvement.

Benefits / Advantages-

- Genome-edited rice can provide **higher yield potential** while retaining desirable characteristics of established varieties.
- Kamala matures in about 130 days**, approximately 20 days earlier than Samba Mahsuri.
- Improved stress tolerance can help rice production under **drought and saline conditions**.

ICAR and IARI Role-

- ICAR-IIRR, Hyderabad** developed **DRR Rice 100 (Kamala)**.
- ICAR-IARI, New Delhi** developed **Pusa DST Rice 1**.
- ICAR initiated major rice genome-editing research around **2018**, including work on Samba Mahsuri and MTU 1010.



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MAP OF THE DAY BHARAT

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BHIMGAD WILDLIFE SANCTUARY

A Biodiversity Hotspot in the Western Ghats

"Caves, Forests and Wildlife – A Natural Treasure of the Western Ghats"

Lush forests of Bhimgad Wildlife Sanctuary

Location & Key Facts

- State** : Karnataka
- District** : Belagavi (Belgaum)
- Taluk** : Khanapur
- Area** : 190.43 sq. km
- Notification** : December 2011 (as a Wildlife Sanctuary)
- Location** : In the Western Ghats
- Proximity** : Near the borders of Goa and Maharashtra
- Connectivity** : Part of an important wildlife corridor linking with Mahadaya Wildlife Sanctuary (Goa)

Location Map



Major Geographical Features

- Covered with evergreen and semi-evergreen forests
- Presence of several natural limestone caves
- Origin of the Malaprabha River (a tributary of the Krishna River) in this region
- Located in the Western Ghats – a global biodiversity hotspot
- Rich in flora and fauna



Forest landscape of Bhimgad

Caves and Unique Bat Species

- The sanctuary has several natural limestone caves.
- These caves are home to various species of bats.
- The **Wroughton's Free-tailed Bat** (*Otomops wroughtoni*) – a very rare and endangered species – is found here.
- Barapede Cave** is one of the major known habitats of this rare bat.
- The sanctuary was primarily established for the conservation of rare bat species and their caves.



Wroughton's Free-tailed Bat (*Otomops wroughtoni*)
A rare and endangered species



Barapede Cave

Other Important Wildlife



Tiger



Leopard



Gaur



Sambar Deer

The sanctuary also supports the movement of tigers and other large mammals through this important wildlife corridor.

Significance

- Conserves rare bat species and their cave habitats.
- Provides a safe habitat for a wide range of flora and fauna.
- Acts as an important wildlife corridor for tigers and other large mammals.
- Part of the ecologically sensitive Western Ghats region
- Contributes to the conservation of biodiversity in the Goa-Karnataka-Maharashtra landscape.

Key Facts at a Glance

State	- Karnataka
District	- Belagavi (Belgaum)
Taluk	- Khanapur
Area	- 190.43 sq. km
Notified as	- Wildlife Sanctuary (Dec 2011)
Region	- Western Ghats
Nearby States	- Goa and Maharashtra
Important River	- Malaprabha (tributary of Krishna)
Key Species	- Wroughton's Free-tailed Bat (<i>Otomops wroughtoni</i>)
Important Cave	- Barapede Cave

Conservation Message

"Protect caves, forests and wildlife today, for a richer tomorrow"



BHIMGAD WILDLIFE SANCTUARY – CONSERVING NATURE'S HIDDEN TREASURES



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MAP OF THE DAY WORLD

Saturday, 05 September 2026



Flag of Kenya

KENYA

A KEY NATION IN EAST AFRICA



Coat of Arms of Kenya

Kenya, officially the **Republic of Kenya**, is a country in East Africa, known for its diverse geography, rich wildlife, vibrant culture and strategic location on the Indian Ocean.

Basic Information

	Capital	Nairobi
	Largest City	Nairobi
	Second Largest & Oldest City	Mombasa
	Official Languages	Swahili, English
	Currency	Kenyan Shilling (KES)
	Population (mid-2026)	~ 54.2 million (27th in world, 7th in Africa)
	Area	580,367 sq km (224,081 sq miles)
	Form of Government	Unitary presidential republic
	President	William Ruto (since 2022)
	Highest Point	Mount Kenya (Point Lenana) (4,985 m)

Location Map



Major Cities



Landscape & Natural Heritage



Kenya is globally renowned for its rich wildlife (lions, elephants, giraffes, etc.) and iconic savannas.

Brief History

- Early Humans:** Some of the first humans evolved here; important fossil evidence at Koobi Fora (prehistoric).
- Hunter-Gatherers:** Later inhabited by hunter-gatherers similar to the present-day Hadza people.
- Cushitic Settlement:** Cushitic speakers settled in the lowlands between 3,200 and 1,300 BC (Lowland Savanna Pastoral Neolithic).
- Nilotic Migration:** Nilotic-speaking pastoralists migrated from present-day South Sudan around 500 BC.
- Bantu Settlement:** Bantu people settled at the coast and interior between 250 BC and 500 AD.
- European Contact:** Began in 1500 AD with the Portuguese.
- British Rule:** East Africa Protectorate (1895); Kenya Colony (1920). Mombasa was the capital of British East Africa Protectorate (1889–1907).
- Mau Mau Uprising:** Began in 1952 due to disputes with the UK.
- Independence:** 12 December 1963.
- Post-Independence:** Remained a member of the Commonwealth of Nations.

International Membership



Key Facts

- ✓ 27th most populous country in the world and 7th in Africa.
- ✓ Strategic location on the Indian Ocean.
- ✓ Home to unique wildlife and iconic landscapes.
- ✓ Culturally diverse with rich heritage.
- ✓ Important role in regional and global affairs.

Borders

- Northwest : South Sudan
- North : Ethiopia
- East : Somalia
- Southeast : Indian Ocean
- Southwest : Tanzania
- West : Lake Victoria and Uganda

Major Physical Features

- Mount Kenya (4,985 m)
- Lake Victoria (western border)
- Great Rift Valley (western region)
- Chalbi Desert, Nyiri Desert
- Rivers and lakes
- Rich biodiversity and national parks

Kenya at a Glance



DAILY CURRENT AFFAIRS QUIZ

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Saturday, 05 September 2026

1. Who is the Prime Minister of Belgium who visited India from 2 to 4 September 2026?

- (A) Alexander De Croo (B) Bart De Wever
(C) Charles Michel (D) Theo Francken

2. Which city has been designated as the Tourism and Cultural Capital of the Shanghai Cooperation Organisation (SCO) for 2026–27?

- (A) Tashkent (B) Bishkek
(C) Almaty (D) Lahore

3. Which drone developed by Apollyon Dynamics entered the India Book of Records on 1 September 2026 for recording India's fastest multirotor UAV speed?

- (A) Ahuti Mk I (B) Vajra Mk II
(C) Ahuti Mk II (D) Garuda Mk III

4. Which state government announced the development of a Coconut Park to promote processing, value addition and exports of coconut products?

- (A) Kerala (B) Tamil Nadu
(C) Karnataka (D) Andhra Pradesh

5. Gaurang Vyas, who passed away in September 2026, was primarily associated with which regional film industry?

- (A) Gujarati cinema (B) Bengali cinema
(C) Marathi cinema (D) Punjabi cinema

6. Which defence diplomacy framework

was released by Defence Minister Rajnath Singh in New Delhi on 3 September 2026?

- (A) SURAKSHA Framework
(B) RAKSHA Framework
(C) SHAKTI Framework
(D) RAKSHIT Framework

7. Which Indian city is set to host the Stage 3 of the Hyundai World Archery Para Series 2026, marking India's first hosting of the event?

- (A) Gandhinagar (B) Surat
(C) Ahmedabad (D) Vadodara

8. Where will the 16th edition of Aero India be held from 8 to 12 February 2027?

- (A) Ghaziabad (B) Kalaikunda
(C) Coimbatore (D) Bengaluru

9. Which ministry has announced the four recipients of the Tenzing Norgay National Adventure Awards 2024 on 2 September 2026?

- (A) Ministry of Youth Affairs
(B) Ministry of Defence
(C) Ministry of Culture
(D) Ministry of Tourism

10. National Wildlife Day 2026 was observed on which date to promote awareness about wildlife conservation and endangered species?

- (A) 1 September 2026 (B) 2 September 2026
(C) 3 September 2026 (D) 4 September 2026

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



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