

## Rare Donor Registry Integrated with e-Rakt Kosh



Source: TH

### Why in News?

The **Union Health Ministry** is integrating the **Rare Donor Registry of India (RDRI)** with **e-Rakt Kosh** to enable real-time access to **rare blood types** (such as **Bombay, Rh-null, P-Null**) and improve nationwide coordination among blood banks.

### What is Rare Donor Registry of India (RDRI)?

- **About:** The **Rare Donor Registry of India (RDRI)** is a **national database** of rare blood group donors.
  - It was developed by the **Indian Council of Medical Research-National Institute of Immunohaematology (ICMR-NIIH)** in collaboration with leading medical institutes.
- **Purpose and Need:** RDRI supports patients who require specially matched transfusions, particularly those suffering from **thalassemia**, **sickle cell disease**, and other rare conditions.
- **Scope & Coverage :** The registry includes **over 4,000 screened donors**, tested for more than **300 rare blood markers**.
  - It focuses on blood groups that either **lack high-frequency antigens** or have **uncommon antigen combinations**.
- **Significance for People with Rare Blood Types:** Rare blood groups are difficult to match. Transfusing incompatible blood may cause **alloimmunisation**, where the patient develops antibodies against transfused blood, complicating future treatments.

### What is e-Rakt Kosh?

- **About:** **e-Rakt Kosh** is a centralized **digital blood bank management system** developed by **CDAC** under the **National Health Mission**.
  - It provides **real-time information on blood availability, donation camps**, and **blood bank**s across India.
  - The platform **connects donors, hospitals, and blood banks**, enabling efficient tracking and safe transfusions.

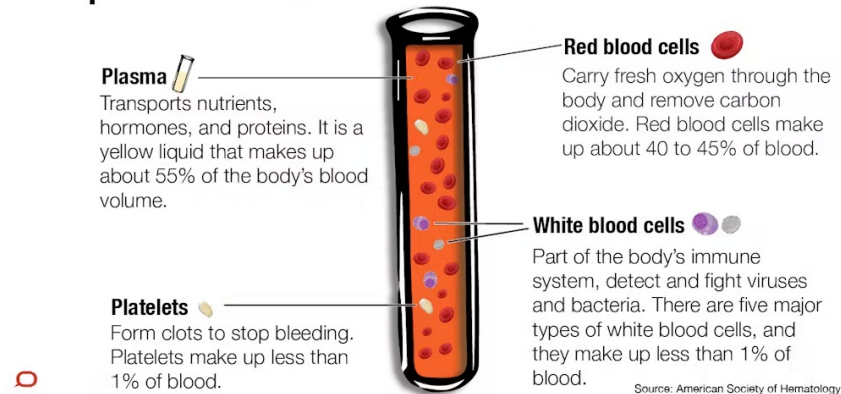
### Blood

- **About:** Blood is a **vital fluid** that transports **oxygen, nutrients, hormones, and waste** throughout

the body.

- Produced in the **bone marrow** , blood also aids in **immunity, healing** , and **waste removal** via the liver and kidneys. An average adult has about **5 litres** of blood.
- **Components** : It consists of **45% cells (red blood cells, white blood cells, and platelets)** and **55% plasma** , a fluid that carries proteins, vitamins, and minerals.

### Components of blood



- **Blood Types or Groups:** There are **4 main blood groups/ types of blood:** A, B, AB and O.

	Type A	Type B	Type AB	Type O
Antigen (on RBC)	Antigen A 	Antigen B 	Antigens A + B 	Neither A or B 
Antibody (in plasma)	Anti-B Antibody 	Anti-A Antibody 	Neither Antibody	Both Antibodies 
Blood Donors	Cannot have B or AB blood Can have A or O blood	Cannot have A or AB blood Can have B or O blood	Can have any type of blood Is the universal recipient	Can only have O blood Is the universal donor

## What is Bombay Blood Group?

[Click Here to Read: Bombay Blood Group](#)

## UPSC Civil Services Examination, Previous Year Question (PYQ)

**Q. A married couple adopted a male child. A few years later, twin boys were born to them. The blood group of the couple is AB positive and O negative. The blood group of the three sons is A positive, B positive and O positive. The blood group of the adopted son is(2011)**

- (a) O positive
- (b) A positive
- (c) B positive
- (d) Cannot be determined on the basis of the given data

**Ans: (a)**

## Croatia



### Source: PIB

The **Prime Minister** of India met with the **Croatian** President as part of his 3-nation tour ( **Cyprus, Canada & Croatia**) following his attendance at the **2025 G7 Summit in Canada** .

### Croatia (Republic of Croatia)

- **Location:** It lies at the junction of Central and Southeast Europe , along the Adriatic Sea .
  - It shares land borders with **Slovenia, Hungary, Serbia, Bosnia & Herzegovina, Montenegro** , and a maritime boundary with **Italy** .
  - **Historically**, Croatia was part of **Yugoslavia** until it gained **independence in 1991** , followed by **reconstruction and democratic reforms** .
- **Geography & Climate:** It features **fertile plains , hilly and mountainous terrain** (including the **Dinaric Alps** with **Dinara Peak - 1,831 m** ), and a rugged **coastal region** .
  - It has a **continental climate** inland with **hot summers and cold winters** , and a **Mediterranean climate** along the coast with **mild winters and dry summers** .



- **Rivers and Lakes:** Major rivers include the **Danube** , **Sava** , **Drava** , **Krka** , **Kupa** , **Una** , and **Cetina**, and major lakes are **Plitvice Lakes** (a [UNESCO World Heritage Site](#) ) and **Lake Vrana** .
  - Its **capital Zagreb** , situated on the **Sava River** , is the administrative and economic centre.
- It is a member of both the **European Union** and [NATO](#) .

**Read More: India-Croatia Relations**