



## Daily Current Affairs Prelims Quiz 21-10-2024 & 20-10-2024 (Online Prelims Test)

1) Consider the following statements with respect to Amylase

1. All people have a single amylase gene on each copy of chromosome-1.
2. Chimpanzees make amylase in their saliva and they carry only a single gene for the enzyme.
3. Hunter-gatherers gained any evolutionary advantage from having extra amylase genes.

How many of the statements given above are correct?

- a. Only one
- b. Only two
- c. All three
- d. None of the above

Answer : a

### Amylase

- Amylase is an enzyme in human saliva that breaks down starch.
- It has been crucial for human evolution and adaptation to changing food supplies.
- Two recent studies, published in Science and Nature, have revealed that humans acquired more amylase genes in two major waves:
- Several hundred thousand years ago, possibly in response to the invention of fire and cooking.
- About 12,000 years ago, after the agricultural revolution.
- Human amylase gene copies vary widely:
- *Some people have a single gene on each copy of chromosome 1.*
- **Most people have multiple copies, up to 11 in some cases. (Statement 2 is incorrect)**
- *This is in contrast to chimpanzees, which have only one copy.*
- The first increase in amylase genes likely coincided with the control of fire, which allowed humans to cook and consume starch-rich plants more easily.
- The second wave occurred with the advent of agriculture, as societies began domesticating starch-rich crops like wheat, barley, and potatoes.
- The studies found **no evidence** that **hunter-gatherers gained any evolutionary advantage from having extra amylase genes. (Statement 3 is incorrect)**
- The studies found that people with more amylase genes were more likely to survive and reproduce in agricultural societies.
- In Peru, where potatoes were domesticated over 5,000 years ago, there was a rapid increase in extra amylase gene copies in recent millennia.
- **Omer Gokcumen, who led the Science study, speculates that:**
- People with fewer amylase genes may be more vulnerable to diseases like diabetes, especially given modern starch-heavy diets.
- More amylase might prompt increased insulin production, potentially leading to better sugar absorption from starch.
- These findings could potentially lead to amylase-based treatments for certain diseases in the future.

2) Consider the following statements with respect to Sakura Science Exchange Program

1. It invites talented young foreign human resources for short-term visits to India.
2. It is an initiative of Department of School Education & Literacy, Ministry of Education.

Which of the statements given above is/are **incorrect**?

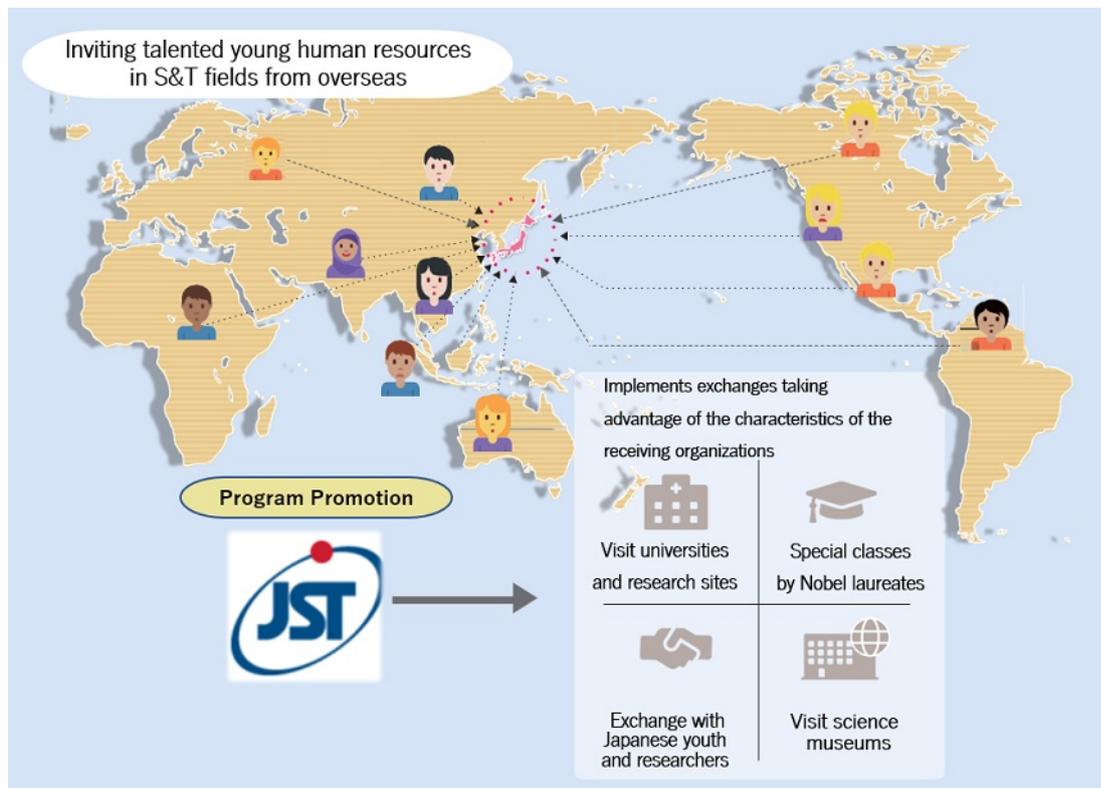
- a. 1 only
- b. 2 only
- c. Both 1 and 2
- d. Neither 1 nor 2

Answer : c

### **Sakura Science Exchange Program**

*Recently the Department of School Education & Literacy, Ministry of Education has sent 20 students from India to participate in Sakura Programme 2024.*

- Sakura Science Exchange Program invites talented young foreign human resources for short-term visits to **Japan**, giving them the opportunity to experience both Japan's cutting-edge science and technology and culture.
- It was started in 2014 by **Japan Science and Technology Agency (JST)**.
- Exchange plans prepared by Japanese receiving organizations and overseas sending organizations are publicly offered and adopted.
- The Sakura Science Program's objectives include:
  - To support the development of talented human resources from overseas who have the potential to contribute to innovation in science and technology.
  - To accelerate the international brain cycle.
  - To promote continuous collaboration, cooperation and interaction between Japanese educational and research institutes and those overseas.
  - To strengthen good relationship between Japan and other countries and regions can encourage diplomacy in science and technology.
- **Eligible persons** - Students, researchers and others engaged in science and technology who are 40 years old and under.
- **Host Organizations** - Educational and research institutes throughout Japan, companies, local governments, various organizations, and others.
- **Sending Organizations** - An organization that dispatches invitees and plans and implements exchange programs in cooperation with the host organization.



3) Consider the following statements with respect to INDIAB

1. It is a nationwide survey on Diabetes.
2. It was conducted by the Indian Council of Medical Research.

Which of the statements given above is/are correct?

- a. 1 only
- b. 2 only
- c. Both 1 and 2
- d. Neither 1 nor 2

Answer : c

## INDIAB

- INDIAB is first of its kind, largest nationwide study on diabetes.
- The study surveyed 1,520 participants across urban and rural areas in Jammu.
- The survey was conducted by the *Indian Council of Medical Research*.
- Key findings for Jammu region:
  - Overall diabetes prevalence: 18.9%
  - Urban areas: 26.5%
  - Rural areas: 14.5%
  - These rates are higher than the national average.
  - Prediabetes affects 10.8% of the population.
  - Hypertension prevalence: 27.1%
  - Generalized obesity: 41.7%
  - Abdominal obesity: 62.7%
- **Measures** – The concern over rising diabetes cases and called for increased awareness to prevent and control the disease.
- The importance of preserving the health of youth, calling them "architects of Viksit Bharat"

(Developed India).

- The government is setting up about 1.5 lakh (150,000) Health and Wellness Centres across India, focusing on prevention and control of Non-Communicable Diseases (NCDs) including diabetes.
- To promote preventive healthcare, including traditional medicine and yoga.

4) Consider the following statements with respect to Exercise NASEEM AL BAHR

1. It is a bilateral military exercise between India and Oman.
2. The exercise was held at Umroi, Meghalaya.

Which of the statements given above is/are correct?

- a. 1 only
- b. 2 only
- c. Both 1 and 2
- d. Neither 1 nor 2

Answer : d

### Exercise NASEEM AL BAHR

- Exercise NASEEM AL BAHR is a bilateral **naval exercise** between **Indian** Navy Royal Navy of **Oman**.
- It was held at **off Goa's coast** in the Indian Ocean region.
- The exercise was conducted in two phases and as part of harbour activities, personnel from both Navies engaged in professional interactions, including Subject Matter Expert Exchanges and planning conferences.
- In addition, sports fixtures and social engagements were also held.
- The exercise included **gun firings** at surface inflatable targets, close-range anti-aircraft firings, maritime manoeuvres, and Replenishment at Sea Approaches (RASAPS).
- The Chetak helicopter embarked on-board INS Trikand undertook cross-deck landings and vertical replenishment with the Omani naval ship, RNOV Al Seeb.

5) Consider the following pairs:

<i>Rivers</i>		<i>Continents</i>
1. Parana River	-	Africa
2. Murray-Darling River	-	Australia
3. Mackenzie River	-	North America
4. Klein River	-	South America

How many of the pair(s) given above is/are correctly matched?

- a. Only one
- b. Only two
- c. Only three
- d. All of the above

Answer : b

### Parana River, Murray-Darling River, Mackenzie River & Klein River

- **Parana River** - of **South America** is the second longest river after the Amazon in South Africa.
- It rises on the plateau of southeast-central Brazil and flows generally south to the point where,

after a course of 4,880 km, it joins the Uruguay River.

- **Murray-Darling River** - Is in **Australia's** south-east.
- The basin is a system of interconnected rivers and lakes
- **Mackenzie River** - Is a major river system in the drainage pattern of north-western **North America**.
- Its *basin is the largest in Canada*, and it is exceeded on the continent only by the Mississippi-Missouri system.
- **The Klein River** - Originates as the Hartebees River, 300 metres above mean average sea level on the northern slopes of the Kleinriver Mountain range.
- It is one of the smallest rivers in **Africa**.



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