ANTHROPOLOGY NEWS DIARY

(AND)

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FOR UPSC CSE MAINS

This series provides compilation of daily CURRENT AFFAIRS of Anthropology.

It is aimed at addressing the requirement of aspirants to add contemporary aspects of the subject to the answers.

It also helps in understanding the trends of anthropology across India and the world.

NOTE: Please attempt the questions given at the end of the document and can upload on the telegram channel: Sosin for Anthropology Q&A, for peer review.
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PRACTICE QUESTIONS FOR PEER REVIEW...........................................................................07

*Note - For convenience, the respective reference links have been dropped at the end of every topic.*
1. **PESA Act**

**Context:**

PESA empowers gram sabhas to play a key role in approving development plans and controlling all social sectors. Panchayat Minister Singh Deo is facing opposition over the much-awaited implementation of PESA, a byproduct of the tussle with Chief Minister Bhupesh Baghel.

**Highlights:**

- The Panchayat (Extension of the Scheduled Areas) Act, 1996 or PESA, was enacted by the Centre to ensure self-governance through gram sabhas (village assemblies) for people living in scheduled areas.
- It legally recognises the right of tribal communities, residents of the scheduled areas, to govern themselves through their own systems of self-government, and also acknowledges their traditional rights over natural resources. In pursuance of this objective, PESA empowers gram sabhas to play a key role in approving development plans and controlling all social sectors.
- This includes the processes and personnel who implement policies, exercising control over minor (non-timber) forest resources, minor water bodies and minor minerals, managing local markets, preventing land alienation and regulating intoxicants among other things.
- State governments were required to amend their respective Panchayat Raj Acts without making any law that would be inconsistent with the mandate of PESA.
- In Chhattisgarh, the Congress government made PESA an election issue, and promised laws under the Act, instituting devaluation of power, and strengthening the gram sabhas at the village level.
- PESA rules enable the residents of scheduled areas to strengthen their village-level bodies by transferring power from the government to the gram sabha, a body of all the registered voters of the village. The powers of gram sabhas include maintenance of cultural identity and tradition, control over schemes affecting the tribals, and control over natural resources within the area of a village.
- The PESA Act thus enables gram sabhas to maintain a safety net over their rights and surroundings against external or internal conflicts. Without proper rules, its implementation is not possible as it is an exercise in decentralising the power from institutionalised structures, back to the village residents.
- The laws, once formed, will give gram sabhas the power to take decisions not only over their customs and traditionally managed resources, but also on the minerals being excavated from their areas. The rules state that the gram sabha will have to be kept informed by any and all agencies working in their village, and that the gram sabha has the power to approve or stop the work being done within the village limits.
- The rules also give power to the gram sabhas over management of resources over *jal, jangal, zameen* (water, forest and land), the three major demands of tribals; minor forest produce; mines and minerals; markets; and human resources.
- The gram sabha would have the powers to monitor and prohibit the manufacturing, transport, sale and consumption of intoxicants within their village limits. It also has a duty to maintain peace and resolve conflicts arising in the village, while protecting tribal customs and traditions, and encouraging customs like *ghotul*. 
A draft has been formulated based on these consultations, which has been sent to the departments and have been shared with MPs and MLAs that represent the scheduled areas. Following their feedback, the draft will be presented before the chief minister and the state cabinet. After the cabinet approves the rules, it will be tabled in the legislative Assembly for discussion. Once the Assembly passes the rules, the governor will have the powers to frame the laws.

Reference:

2. Rani Kamlapati

Context:
Prime Minister Narendra Modi Monday inaugurated the newly-revamped Rani Kamlapati Railway Station, earlier known as Habibganj Railway Station, on a visit to Madhya Pradesh.

Highlights:
- The 18th-century queen was one of the seven wives of Gond warlord Nizam Shah, who ruled his territory from Ginnor fort, the present day Ginnorgarh, in what is now Sehore district.
- Nizam Shah had built a palace, the Kamlapati Mahal, for the queen in Bhopal, which was completed in 1722. The monument is designated as one of national importance and is protected by the Archaeological Survey of India (ASI).
- Nizam Shah, according to Chouhan’s blog post, ruled over a territory that was formed with the merger of 750 villages in the 16th century by Suraj Singh Shah (Salaam), Nizam’s father.
- The queen went into hiding with her 12-year-old-son Nawal Shah and reached out to Afghan leader Dost Mohammad Khan, believed to be a mercenary in those days.
- According to popular belief, Rani Kamlapati offered one lakh mohars (coins) to Dost Mohammad Khan and asked him to attack Chain Singh. Khan attacked the fort of Ginnorgarh, killed Chain Singh, and captured the fort.

Reference:
3. Forensics - Poison Evidence in Bones.

Context:
Researchers find evidence of the oldest mercury poisoning in history in bones from 5,000 years ago in Spain and Portugal.

Highlights:
- The poisoning was caused by exposure to cinnabar, a mineral that was pulverized to be used in decorations, paintings and even in funeral rituals, the researchers explain.
- A team of scientists has found the oldest evidence of mercury poisoning in 5,000-year-old bones in Spain and Portugal.
- The work, which explores the complex interrelationship between humans and mercury over time, is the largest study ever conducted on the presence of this compound in human bones.
- A total of 14 specialists in biology, chemistry, physical anthropology and archeology participated and used as a sample the skeletal remains of 370 individuals from 50 tombs located in 23 archaeological sites in Spain and Portugal. These bones span 5,000 years of history as they date back to the Neolithic, Copper Age, Bronze Age, and Old Age.
- The researchers found that the highest levels of mercury exposure occurred at the beginning of the Copper Age, between 2900 and 2600 BC C., coinciding with the increase in the exploitation and use of cinnabar – an intense red mineral – for social and cultural reasons.
- Cinnabar was historically used to produce pigments for painting, decorations, and funeral rituals. It turns out that the geographic area where the researchers worked is near the largest cinnabar mine in the world, which is located in Almadén, in central Spain. The said mine, declared a World Heritage Site by UNESCO, began to be exploited 7,000 years ago during the Neolithic, which made it possible for cinnabar to become a product with high social and sacred value already in the Copper Age.
- The investigation revealed that in tombs discovered in southern Portugal and the Spanish autonomous community of Andalusia, this powder was used to paint megalithic chambers, decorate statuettes or stelae, and spread it over the dead. As a result, many people must have accidentally inhaled or consumed it, causing large accumulations of mercury in their bodies.
- The study recorded levels of up to 400 parts per million (ppm) in the bones of some of these individuals. Taking into account that, according to the World Health Organization (WHO), exposure to mercury even in small amounts can cause serious health problems, the analyzed bodies had a high level of intoxication.
- In fact, the levels that were detected in some subjects are so high that the study authors do not rule out that powdered cinnabar was deliberately consumed, by inhalation of vapors, or even ingestion, due to the symbolic and esoteric ritual value attributed to it. in the past.

Reference:

4. Natural selection & human genes

- A new study suggests that human ingenuity hasn’t exempted us from the forces of evolution. Natural selection, the evolutionary process that guides which traits become more common
in a population, has been acting on us for the past 3,000 years, right up to the modern day, new research suggests.

- And it seems to be acting in surprising ways on complex traits encoded by multiple genes, such as those tied to intelligence, mental illness and even cancer.
- In natural selection, genes that confer some sort of survival or reproductive advantage get passed down and persist in a population, while those that lead to lower survival or fewer offspring become less common.
- There’s no question that natural selection shaped the evolution of humans in our more distant past. But the impact of natural selection in the recent past is a much more controversial question.
- The new study focuses on traits that emerge from a combination of multiple gene variants, such as intelligence and skin pigmentation. The complex genetics of these traits makes unraveling the action of individual genes difficult.
- To find these subtle effects, researchers conduct genome-wide association studies (GWAS), in which they scan for genetic markers across the entire genome to find short genetic sequences that are more common in certain traits than in others.
- These results can be challenging to interpret even comparing people at a single point in time. Newer studies up the ante by looking not only for genes associated with complex traits, but also for signs of natural selection on these traits. In essence, genes that become more common over time are under positive selection: They’re beneficial in some way and are thus likely to be passed down. Genes that become less common with time are under negative selection. They’re somehow harmful to survival or reproduction, and thus are less likely to be passed down.

Reference:

5. Health & Genetic Variation

- Five Stanford Medicine faculty members have received more than $40 million from the National Institutes of Health as part of a $180 million, five-year endeavor to understand how variations in the human genome — those affecting DNA sequence, three-dimensional structure and the pattern of chemical tags that regulate the expression of genes along its length — influence human health and disease.
- The research is expected to help clinicians better predict an individual’s disease risk and to provide clues about the molecular causes of poorly understood diseases.
- The new consortium, the Impact of Genomic Variation on Function, brings together researchers from 30 institutions to identify, map and catalog regions in the human genome critical to its function.
- The consortium’s goal is an extension of the decade’s long push to learn how a person’s genetic code, coupled with environment and lifestyle, affects that person’s likelihood of developing a wide variety of conditions.
- Since the first sequencing of the human genome in the early 2000s, researchers have identified tens of thousands of disease-associated variations, usually by comparing the complete DNA sequences of many people and pinpointing specific changes that occur more commonly in individuals with a particular disease or health condition.
● Some of the variations that have been identified change the structure — and thus the physiological function — of the protein encoded by a gene in the DNA sequence. Others occur in regulatory regions that control how and when certain genes are expressed. Still others change the three-dimensional structure of the genome or the prevalence of chemical tags on the DNA that control gene function.

● In some cases, these changes can be directly linked via molecular pathways to the development of a disease being studied. Sickle cell anemia, for example, is caused by a single mutation in the gene that encodes a protein in red blood cells called beta hemoglobin. The mutated beta hemoglobin molecules fold incorrectly, forcing the red blood cell into a sickle shape that delivers oxygen inefficiently and causes patients pain, fatigue and other symptoms.

Reference:

UPSC Previous year questions based on today’s concept:
1. Genome Sequencing (S.N. - 2008)
2. Epidemiology (15 Marks - 2003)

DAILY PRACTICE QUESTION/S FOR MAINS 2021.
Pl do not forget to upload your answer sheet for a peer review on the telegram channel:
Sosin for Anthropology Q&A
1. Applications of Anthropology in Forensics. (20 marks)