

APP LO STUDY CENTRE

TNPSC GROUP I MAIN – 2021 TEST OF NOVEMBER PAPER – I & II

Time: 3 hours

Total marks: 250

SECTION A

10 x 10 = 100

Answer all the questions. Answer not exceeding 150 words each

PAPER UNIT- I : MODERN HISTORY OF INDIA AND INDIAN CULTURE

1. Write a detailed note on the Origin and Growth of Madras.

மெட்ராசின் தோற்றம் மற்றும் வளர்ச்சி குறித்து விரிவாக எழுதுக

Origin and Growth of Madras

The beginning of the city of Madras goes back to the earliest stages of British commercial enterprise in India. The English East India Company was started in 1600 A.D(C.E). Twelve years later, a Factory was set up at Surat on the West coast. Subsequently the search for textiles brought British merchants to have port on the east coast.

The English, after some efforts secured the privilege of building a factory at Masulipatnam. It was well protected from the monsoon winds. But then Masulipatnam was in the throes of a famine. In spite of every assurance of protection, English trade did not thrive at that place. Then the English traders looked for a new site. Francis Day, the member of the Masulipatnam council and the chief of the Armagon Factory, made a voyage of exploration in 1637 with a view to choose a site for a new settlement. At last, he was given the offer to choose Madrasapatnam. Francis Day inspected the place and found it favourable to set up factory.

The official grant for the land was given by Damarla Venkatapathy Nayak, the deputy of the Raja of Chandragiri (12km west of Tirupathi). Damarla gave British a piece of land between Cooum river and the Egmore. In 1639 the deed was signed by English East India Company's Francis Day accompanied by his interpreter Beri Thimmappa and superior Andrew Cogan. By this Francis Day and Andrew Cogan (the chief of the Masulipatnam Factory), was granted permission to establish a factory - cum - trading post and a fort at Madrasapatnam in 1639. This fortified settlement came to be known as Fort St. George settlement. It is otherwise referred to as the White Town. While the nearby villages inhabited by local population was called as Black Town. Collectively the White Town and the Black Town were called Madras.

Madrasapatnam

Damarla Venkatapathy gave the English the grant of Madrasapatnam. He was under the control of Venkatapathy Rayalu, the Rajah of Chandragiri. Venkatapathy was succeeded by Srirangarayalu in 1642. He issued a new grant to English in 1645 called Srirangarayapatnam. Venkatapathy desired that the name Chennapatnam should be given to the new Fort and settlement of the English after his father Chennappa Nayak. But the English preferred to call the two united towns by the name of Madrasapatnam.

Making of Chennai

Chennai was once a group of villages set amidst palm fringed paddy fields until two English East India Company merchants visited there. Raja Mahal in Chandragiri palace, where Sir Francis Day of the East India Company was granted land in 1639 in order to set up factory which later came to be known as Madras. This first factory was completed on St. George's Day, 23 April 1640 and named Fort St. George. Day and Cogan of Fort St. George. This was the East India Company's principal settlement until 1774.

The Madras presidency was an administrative sub division which was referred to as the Madras province. The Madras presidency during the British regime covered a vast expanse of the southern part of India that encompasses modern day Tamil Nadu, the Lakshadweep Island, Northern Kerala, Rayalaseema, coastal Andhra, districts of Karnataka and various districts of southern Odisha.

After independence in 1947 the Madras presidency became the state of Madras and the other regions that were a part of the erstwhile presidency were constituted in separate states of Andhra Pradesh, Kerala and Mysore under the States Reorganisation Act, 1956. Later on in 1969 the State of Madras was rechristened as Tamil Nadu. On 17th July 1996, Madras was officially renamed as Chennai.

PAPER I UNIT- II: SOCIAL ISSUES IN INDIA AND TAMIL NADU

2. Write a note on Women in Armed Forces.

ஆயுதப்படையில் பெண்கள் குறித்து குறிப்பு வரைக

- Women in Army
- Women in Navy
- Women in Airforce
- Women personalities in Armed Forces
- Government's Recent initiatives

3. Write a note on the role of NGO's during floods in Chennai.

சென்னை வெள்ளத்தின் போது தன்னார்வ தொண்டு நிறுவனங்களின் பங்களிப்பு பற்றி குறிப்பு வரைக

- Define NGO
- Frequency floods in Chennai 2015, 2021
- NGO's relief work - have to mention NGOs name and their areas of work

PAPER I UNIT- III : GENERAL APTITUDE & MENTAL ABILITY (SSLC STANDARD)

4. A card is drawn from a pack of 52 cards. Find the probability of getting a king or a heart or a red card.

52 சீட்டுகள் கொண்ட சீட்டுக் கட்டிலிருந்து ஒரு சீட்டு எடுக்கப்படுகின்றது. அந்தச் சீட்டு இராசா அல்லது ஹார்ட் அல்லது சிவப்பு நிறச் சீட்டாக இருப்பதற்கான நிகழ்தகவைக் காண்க

Solution:

Total number of cards = 52; n(s) = 52

Let A be the event of getting a king card. n(A) = 4

$$P(A) = \frac{n(A)}{n(S)} = \frac{4}{52}$$

Let B be the event of getting a heart card. n(B) = 13

$$P(B) = \frac{n(B)}{n(S)} = \frac{13}{52}$$

Let C be the event of getting a red card. n(C) = 26

$$P(C) = \frac{n(C)}{n(S)} = \frac{26}{52}$$

$$P(A \cap B) = P(\text{getting heart king}) = \frac{1}{52}$$

$$P(B \cap C) = P(\text{getting red and heart}) = \frac{13}{52}$$

$$P(A \cap C) = P(\text{getting red king}) = \frac{2}{52}$$

$$P(A \cap B \cap C) = P(\text{getting heart, king which is red}) = \frac{1}{52}$$

Therefore, required probability is

$$P(A \cup B \cup C) = P(A) + P(B) + P(C) - P(A \cap B) - P(B \cap C) - P(C \cap A) + P(A \cap B \cap C)$$

$$= \frac{4}{52} + \frac{13}{52} + \frac{26}{52} - \frac{1}{52} - \frac{13}{52} - \frac{2}{52} + \frac{1}{52}$$

$$= \frac{28}{52} = \frac{7}{13}$$

5. Answer the following questions

பின்வரும் வினாக்களுக்கு விடையளி

- a. A boy is cycling such that the wheels of the cycle are making 140 revolutions per minute. If the diameter of the wheel is 60 cm, calculate the speed in km per hour with which the boy is cycling.

நிமிடத்திற்கு 140 முறை சக்கரம் சுழலுமாறு ஒரு சிறுவன் சைக்கிள் ஓட்டுகிறான். சக்கரத்தின் விட்டம் 60 செ.மீ எனில் சிறுவன் சைக்கிள் ஓட்டும் வேகத்தை கி.மீ/மணி இல் காண்க

Solution:

Given the diameter of the wheel = 60 cm

Distance covered by the wheel in 1 revolution = Circumference of the wheel

Distance covered by the wheel in 1 revolution = $\pi \times d$

$$= \frac{22}{7} \times 60 \text{ cm}$$

$$\text{Distance covered by the wheel in 140 revolutions} = \frac{22}{7} \times 60 \times 140$$

$$= 26400 \text{ cm}$$

Thus, the wheel covers 26400 cm in 1 minute. Then,

$$\text{Speed} = \frac{2600}{100} \times 60 \text{ m/hr.}$$

$$= 264 \times 60 \text{ m/hr.}$$

$$= \frac{264}{1000} \times 60 \text{ km/hr.}$$

$$= 15.84 \text{ km/hr.}$$

The speed with which the boy is cycling is 15.84 km/hr.

- b. X alone can do a piece of work in 6 days and Y alone in 8 days. X and Y undertook the work for ₹4800. With the help of Z, they completed the work in 3 days. How much is Z's share?

X என்பவர் தனியே ஒரு வேலையை 6 நாட்களிலும், Y என்பவர் தனியே அதே வேலையை 8 நாட்களிலும் முடிப்பார். X மற்றும் Y ஆகியோர் இந்த வேலையை ₹4800 க்கு ஒப்புக் கொண்டனர். Z என்பவரின் உதவியுடன், அவர்கள் அந்த வேலையை 3 நாட்களில் முடித்தனர் எனில், தொகையில் Z இன் பங்கு எவ்வளவு?

Solution:

X can do the work in 6 days.

$$X's \text{ one day Work} = \frac{1}{6}$$

$$X's \text{ Share for 1 day} = \frac{1}{6} \times 4800 = \text{Rs.}800$$

X's Share for 3 days = $3 \times 800 = \text{Rs.}2400$

Y can complete the work in 8 days.

Y's one day work = $\frac{1}{8}$

Y's one day share = $\frac{1}{8} \times 4800 = \text{Rs.}600$

Y's 3 days share = $3 \times 600 = \text{Rs.}1800$

(X + Y)'s 3 days Share = $2400 + 1800 = \text{Rs.}4200$

Remaining money is Z's share

Z's share = $4800 - 4200 = \text{Rs.}600$

PAPER II UNIT- I: INDIAN POLITY AND EMERGING POLITICAL TRENDS ACROSS THE WORLD AFFECTING INDIA

6. What is Right To Information Act (RTI)? What rights are available under RTI Act? Examine it's constitutional significances?

தகவல் அறியும் உரிமைச்சட்டம் என்றால் என்ன? தகவல் அறியும் உரிமை சட்டத்தின் கீழ் கிடைக்கப்பெறும் உரிமைகள் யாவை? அதன் அரசியலமைப்பு முக்கியத்துவம் பற்றி ஆய்க

The Right to Information (RTI) is an act of the Parliament of India which sets out the rules and procedures regarding citizens' right to information. It replaced the former Freedom of Information Act, 2002. Under the provisions of RTI Act, any citizen of India may request information from a "public authority" (a body of Government or "instrumentality of State") which is required to reply expeditiously or within thirty days.

In case of matter involving a petitioner's life and liberty, the information has to be provided within 48 hours. The Act also requires every public authority to computerize their records for wide dissemination and to proactively publish certain categories of information so that the citizens need minimum recourse to request for information formally.

Right to Information means the freedom of people to have access to government information. It implies that the citizens and non-governmental organisations should enjoy a reasonably free access to all files and documents pertaining to government operations, decisions, and performance. In other words, it means openness and transparency in the functioning of government. Thus, it is antithetical to secrecy in public administration.

In 1992, the World Bank released a document entitled 'Governance and Development. The document has mentioned seven aspects or elements of governance - one of them being transparency and information.

The Right to Information is necessary due to the following reasons:

1. It makes administration more accountable to people
2. It reduces the gap between administration and people

3. It makes people aware of administrative decision-making
4. It facilitates better delivery of goods and services to people by civil servants.
5. It facilitates intelligent and constructive criticism of administration.
6. It increases people's participation in administration
7. It promotes public interest by discouraging arbitrariness in administrative decision-making.
8. It reduces the scope for corruption in public administration.
9. It upholds the democratic ideology by promoting openness and transparency in administration.
10. It makes administration more responsive to the requirements of people
11. It reduces the chances of abuse of authority by the public servants.

Recognising the need for setting out a practical regime for securing of information by citizens from the public authorities, and to promote transparency and accountability in the working of all public authorities, the Parliament enacted the Right to Information Act in 2005.

The Law of is comprehensive and covers disclosure of information on almost all matters of governance. It is applicable to Government at all levels - Central, State and Local (both rural and urban) and also to the bodies owned, controlled or substantially financed by the government, as well as to the non-governmental organisations receiving government grants. It covers the legislature the judiciary, the executive and all constitutional bodies.

Objectives of the RTI Act

- i. Empower citizens to question the government.
- ii. The act promotes transparency and accountability in the working of the government.
- iii. The act also helps in containing corruption in the government and work for the people in a better way.
- iv. The act envisages building better-informed citizens who would keep necessary vigil about the functioning of the government machinery.

Rights available under RTI

1. The Act confers on all citizens the right of access to the information and, correspondingly, makes the dissemination of such information an obligation on all public authorities.
2. It fixes a 30-day deadline for providing information; deadline is 48 hours if information concerns life or liberty of a person.
3. Information will be free for people below poverty line. For others, fee will be reasonable.
4. The Act imposes obligation on public agencies to disclose the information suo-motu to reduce requests for an information.
5. Government bodies have to publish details of staff payments and budgets.

6. It provides for the establishment of a Central Information Commission and State Information Commissions to implement the provisions of the Act. They will be high-powered independent bodies to act as appellate authorities and vested with the powers of a civil court.
7. The President will appoint a Chief Information Commissioner and governors of states will appoint state information commissioners. Their term will be of five years.
8. The Act overrides the Official Secrets Act, 1923. The information commissions can allow access to the information if public interest outweighs harm to protected persons.
9. It carries strict penalties for failing to provide information or affecting its flow. The erring officials will be subjected to departmental proceedings.
10. The information commission shall fine an official Rs. 250 per day (subject to a maximum of Rs. 25,000) if information is delayed without reasonable cause beyond the stipulated 30 days.
11. The Act provides for a system of two appeals in case the information is denied: first appeal to the senior of the concerned public information officer within 30 days and second appeal to the Information Commission within 90 days. The decision of the information commission is binding.
12. The Act repealed the old Freedom of Information Act (2002) which was unnotified and hence, not operational.

Constitutional Significances

Although Right to Information is not included as a **Fundamental Right** in the **Constitution of India**, it protects the fundamental rights to Freedom of Expression and Speech under Article 19(1)(a) and Right to Life and Personal Liberty under Article 21 guaranteed by the Constitution.

The authorities under RTI Act 2005 are called public authorities. The Public Information Officer (PIO) or the First Appellate Authority in the public authorities perform quasi-judicial function of deciding on the application and appeal respectively. This act was enacted in order to consolidate the fundamental right in the Indian constitution 'freedom of speech'. Since RTI is implicit in the Right to Freedom of Speech and Expression under Article 19 of the Indian Constitution, it is an implied fundamental right.

The Supreme Court has, in several judgments, held that the RTI is a fundamental right flowing from Articles 19 and 21 of the Constitution, which guarantee to citizens the freedom of speech and expression and the right to life, respectively.

Constitutional Provisions for RTI Act

Though there is no direct provision for RTI in Constitution of India, there is strong Constitutional Basis for RTI.

1. Preamble
2. Article 14
3. Article 19(1) (a)
4. Article 21
5. Article 32
6. Article 39 (1) (b) and (c)
7. Article 51A

Constitutional Basis for RTI

1. Preamble
 - a. As the preamble signifies, one of the significant objectives of Indian constitution is to secure liberty of thought and expressions to the citizen of India
 - b. It can never be secured until and unless the citizens have RTI
2. Article 14
 - a. It guarantees right to equal protection of the laws and right to equality before law
 - b. If government officials have information it must be provided to other citizens also to assure equality among citizens.
3. Article 19 (1) (a)
 - a. It guarantees the fundamental right to free speech and expression, it includes the right to access information.
 - b. Thus the right to information becomes a constitutional right as the right to free speech also guarantees right to receive and collect information.
4. Article 21
 - a. It talks about right to life and personal liberty
 - b. The Supreme Court read into this article as a broad right to include right to know within its purview.
5. Article 39 (1) (b) (c)
 - a. It provides for adequate means of livelihood, equitable distribution of resources of community, to check concentration of wealth and means of production.
 - b. All these will remain unfulfilled if RTI is not guaranteed.
6. Article 32
 - a. It guarantees right to constitutional remedies for violation of fundamental rights.
 - b. Thus RTI must be guaranteed to all citizens.

7. Article 51A

- a. The constitution imposes certain duties on citizens
- b. A fully informed citizen is better equipped for the performance of these duties.

Conclusion

The Right to Information Act has not achieved its full objectives due to some impediments created due to systematic failures. It was made to achieve social justice, transparency and to make an accountable government.

OR

'Article 32 is the Soul of our Constitution' (Ambedkar) - Examine the truth in this statement.

“சட்டக்கூறு 32 நமது அரசியலமைப்பின் ஆன்மாவாகும்” (அம்பேத்கர்) - இக்கூற்றின் உண்மை தன்மையை ஆய்க.

A mere declaration of fundamental rights in the Constitution is meaningless, useless and worthless without providing an effective machinery for their enforcement, if and when they are violated. Hence, Article 32 confers the right to remedies for the enforcement of the fundamental rights of an aggrieved citizen. In other words, the right to get the Fundamental Rights protected is in itself a fundamental right. This makes the fundamental rights real. That is why Dr Ambedkar called Article 32 as the most important article of the Constitution- ‘an Article without which this constitution would be a nullity. It is the very soul of the Constitution and the very heart of it’. The Supreme Court has ruled that Article 32 is a basic feature of the Constitution.

Hence, it cannot be abridged or taken away even by way of an amendment to the Constitution. It contains the following four provisions:

- a. The right to move the Supreme Court by appropriate proceedings for the enforcement of the Fundamental Rights is guaranteed.
- b. The Supreme Court shall have power to issue directions or orders or writs for the enforcement of any of the fundamental rights. The writs issued may include habeas corpus, mandamus, prohibition, certiorari and quowarranto.
- c. Parliament can empower any other court to issue directions, orders and writs of all kinds. However, this can be done without prejudice to the above powers conferred on the Supreme Court. Any other court here does not include high courts because Article 226 has already conferred these powers on the high courts.
- d. The right to move the Supreme Court shall not be suspended except as otherwise provided for by the Constitution. Thus the Constitution provides that the President can suspend the right to move any court for the enforcement of the fundamental rights during a national emergency (article 359)

It is thus clear that the Supreme Court has been constituted as the defender and guarantor of the fundamental rights of the citizens. It has been vested with the ‘original’ and ‘wide’ powers for that purpose. Original, because an aggrieved citizen can directly go to the Supreme Court, not necessarily by way of appeal. Wide,

because its power is not restricted to issuing of orders or directions but also writs of all kinds.

The purpose of Article 32 is to provide a guaranteed, effective, expeditious, inexpensive and summary remedy for the protection of the fundamental rights. Only the Fundamental Rights guaranteed by the Constitution can be enforced under Article 32

Types of Writs

- Habeas Corpus
- Mandamus
- Prohibition
- Certiorari
- Quo Warranto

PAPER II UNIT- II: ROLE AND IMPACT OF SCIENCE AND TECHNOLOGY IN THE DEVELOPMENT OF INDIA

7. Explain the applications of surface tension in our daily life

நமது அன்றாட வாழ்வில் பரப்பு இழுவிசை பயன்பாடு குறித்து விளக்கு

Examples of Surface Tension (Due to formation of the surface film):

- When a glass rod is dipped in "water and taken out it is found that the drop of water is sticking to the end of the rod. The molecules of water appear to be contained in a bag whose surface is made up of a film of water molecules themselves. This example shows that the free surface of a liquid behaves like a film which is under tension.
- When water falls slowly in drops from a tap, each drop gradually forms at the tip of die nozzle. As the drop of water grows in size, it looks like a hanging elastic bag whose surface area is expanding as it fills up.
- Water spiders are able to walk on the surface of the water because their feet produce dimples on the surface Sim without rupturing die Sim. As soon as a foot is lifted the film which is under tension again becomes flat. The feet of the spider produce dimples on the surface Sim without rupturing the film. Due to which the surface tension acts in an inclined manner. The vertical component of the surface tension supports the weight of the insect. As soon as a foot is lifted die film which is under tension again becomes Sat.
- A safely razor blade, when placed gently with its flat surface on water floats on it even though the density of steel, is nearly eight times greater than that of water. The surface film forms due to surface tension support the needle/blade and their thickness is not sufficient to break the film.
- When a paintbrush is immersed in paint, there is no free surface area available for liquid ion the paint and the hair are spread. When the brush is taken out, its bristles

are drawn close together due to the surface tension in the film formed between adjacent hair.

- A liquid tries to acquire a minimum surface area on account of its surface tension. For a given volume sphere has the smallest surface area. Hence rainwater falling down acquires spherical shape i.e. raindrops are spherical. When irregular shaped camphor piece is dropped on the water surface, it gets dissolved gradually. Thus the surface tension of water around it decreases. Due to irregular shape the unbalanced forces makes it move haphazardly on the surface of the water. Thus die irregularly shaped camphor piece dances on die water surface.
- Oil does not spread on cold water but spreads on hot water because when water is cold the surface tension of oil is less than that of cold water but when water is hot die surface tension of oil is greater than that of hot water.
- High tides in seawater are reduced by sprinkling oil on the water surface.
- Rainwater does not pass-through tiny holes in die fabrics of umbrellas, tents, raincoats, etc. because, on account of surface tension, the holes are blocked by fine films of water.
- The surface tension of liquid prevents it from spreading over a solid surface. But lubricating oil must readily spread on die solid surface which is to be lubricated. Therefore, by blending different types of oil, die surface tension of a lubricating oil is made as low as possible.
- When soap dissolves in water, die surface tension of soap solution is greatly reduced and this enables soap solution to quickly spread over large areas. This is one of die reasons why soap is used in washing.
- Soap is used in toothpaste to enables the paste to quickly spread over a large area and give a good mouthwash.
- Soap is used as wetting age at in dying.

8. Describe the role and functions of TRANSTAN

TRANSTAN இன் பங்கு மற்றும் பணிகள் பற்றி விவரி

- Tamil Nadu is one of the first States to initiate Cadaver Transplant in 1995 after the Transplantation of Human Organs Act was passed in the year 1994.
- Cadaver Transplant Programme was made a Government Society in May 2015 and named as Transplant Authority of Tamil Nadu under the Chairmanship of the Honourable Chief Minister of Tamil Nadu.

Functions Of Management / Unit

- Allocating Organs

- Maintaining waiting list, collection of data relating to donors, recipients, transplant hospitals.
- Case Coordination.
- Post Transplant Follow Up, conducting awareness programmes, maintenance of accounts, organizing meetings, liaising with Government / Private officials.

Functions Of TRANSTAN

- Regional Organ and Tissue Transplant Organization (ROTO) for Southern Region. South ROTO includes Tamil Nadu, Kerala, Karnataka, Andhra Pradesh, Telangana, Karnataka, Puducherry, Andaman & Nicobar and Lakshadweep.
- State Organ and Tissue Transplant Organization (SOTTO) by Government of India order
- Streamlining all procedures related to Cadaver and Living Organ Transplantation.
- Regulates distribution of organs in a transparent manner.
- Ensures protocol development, research, data analysis, outcome monitoring and knowledge dissemination.
- Assists the State & Central Governments in the formulation of policies, procedures, establishment of regulatory frameworks for all kinds of organ & tissue transplantation.
- Helps hospitals to identify brain stem death and proceed further.
- Maintains an online waitlist registry.
- Transmitting soft skills related to donor maintenance
- Helping hospitals in medico legal procedures, liaising with Police in providing Green corridor for transporting organs.
- Compiling a State and regional database
- Liaising with neighbouring States in organ sharing
- Liaising with the Government of India on issues related to transplants
- Networking all stakeholders in organ and tissue transplantation including hospitals, medical personnel, organ and tissue donors, families of deceased donors, persons needing transplantation, persons having been transplanted, non- governmental organizations and individuals involved and State and Central Government to collectively promote long healthy and productive lives for persons with organ and tissue failures and for those with health conditions leading to it.

PAPER II UNIT- III : TAMIL SOCIETY AND ITS CULTURE AND HERITAGE

9. **Write an essay on Tholkappiyam**
தொல்காப்பியம் குறித்து கட்டுரை வரைக

Tolkāppiyam is the most ancient extant Tamil grammar text and the oldest extant long work of Tamil literature. The surviving manuscripts of the Tolkappiyam consists of three books (atikaram), each with nine chapters (iyal), with a cumulative total of 1,610 (483+463+664) sutras in the nūrpā meter. It is a comprehensive text on grammar, and includes sutras on orthography, phonology, etymology, morphology, semantics, prosody, sentence structure and the significance of context in language

The Tolkappiyam is difficult to date. Some in the Tamil tradition place the text in the mythical second sangam, variously in 1st millennium BCE or earlier. Scholars place the text much later and believe the text evolved and expanded over a period of time. According to some, the earliest layer of the Tolkappiyam was likely composed between the 2nd and 1st century BCE, and the extant manuscript versions fixed by about the 5th century CE. The Tolkappiyam Ur-text likely relied on some unknown even older literature.

Iravatham Mahadevan dates the Tolkappiyam to no earlier than the 2nd century CE, as it mentions the pulli being an integral part of Tamil script. The pulli (a diacritical mark to distinguish pure consonants from consonants with inherent vowels) only became prevalent in Tamil epigraphs after the 2nd century CE. According to linguist Prof. S. Agesthalingam, Tolkappiyam contains many later interpolations, and the language shows many deviations consistent with late old Tamil (similar to Cilappatikaram), rather than the early old Tamil poems of Eṭṭuttokai and Pattuppāṭṭu.

Etymology

Date

Dates proposed

Author

Content -Ezhuthadhikaram, Sollathikaram, Porulathikaram

Commentaries

Author	Date	Notes
Ilampuranar	10th to 12th century	Full: all verses
Cenavaraiyar	13th or 14th century	Partial: 2nd book
Peraciriyar	13th century	Partial: 1st and 2nd book
Naccinarkkiniyar	14th century	Partial: 1st, 2nd and part 3rd book
Tayvaccilaiyar	16th century	Partial: 2nd book
Kallatanar	15th to 17th century	Partial: 2nd book

10. Write a note on Pure Tamil Movement.

தனித்தமிழ் இயக்கம் பற்றி குறிப்பு வரைக

Maraimalai Adigal

Maraimalai Adigal (1876–1950) is considered the father of Tamil linguistic purism and the founder of Tani Tamil Iyakkam (Pure Tamil Movement). He wrote commentaries on the Sangam texts, Pattinappalai and Mullaipattu. As a young man, he worked in a journal, Siddhanta Deepika. Later he served as a Tamil teacher in the Madras Christian College for many years. He was inclined towards non-Brahmin movement. His teachers such as P. Sundaranar and Somasundara Nayagar were key influences in his life.

Tani Tamil Iyakkam (Pure Tamil Movement)

Maraimalai Adigal promoted the use of pure Tamil words and removal of the Sanskrit influence from the Tamil language. The movement made a great impact on Tamil culture

especially in language and literature. The beginnings of the movement are usually dated to 1916 even though the process of identifying influence of foreign words in Tamil and eliminating them can be dated much earlier to the late nineteenth century. His daughter Neelambikai, played an important role in its foundation. He changed his own name Vedachalam and took on the pure Tamil name of Maraimalai Adigal. His journal Jnanasagaram was renamed Arivukkadal and his institution, Samarasa Sanmarga Sangam, was re-christened as Potu Nilai Kalakam. The movement was critical of Hindi, Sanskrit and the Brahminical hegemony in Tamil society.

Neelambikai compiled a dictionary that provided pure Tamil equivalents to Sanskrit words that had crept into Tamil vocabulary. This movement paved the way for later social movements that countered Brahminical and the Sanskrit tradition in Tamil society.

SECTION - B

10 x 15 = 150

Answer all the questions. Answer not exceeding 250 words each

PAPER UNIT- I : MODERN HISTORY OF INDIA AND INDIAN CULTURE

11. Write a detailed essay on the last phase of Gandhian Movement.

காந்திய இயக்கத்தின் இறுதி கட்டம் குறித்து ஒரு கட்டுரை வரைக

- Three phases of Gandhian Movement
- NCM - 1920
- CDM - 1930
- QIM - 1942
- Last Phase of Gandhian Movement
 - Failure of Cripps Proposal
 - Quit India Movement
 - Role of Aruna Asaf Ali
 - Role of JP
 - Role of Usha Mehta
 - Parallel Government
 - Quit India Movement in Tamil
 - Leaders /Organisation not participated in Quit India Movement

PAPER I UNIT- II: SOCIAL ISSUES IN INDIA AND TAMIL NADU

12. Discuss in detail the role of Government of Tamilnadu for Women Empowerment.

பெண்களுக்கு அதிகாரமளித்தலில் தமிழக அரசின் பங்களிப்பு குறித்து விவாதி

- Definition
- Policies
- Programmes
- Projects
- Schemes
- SHG
- Political Participation of Women

13. Discuss the challenges of Unemployment in Tamilnadu and what are the steps taken by the Government of Tamilnadu to check the magnitude of unemployment.

தமிழ்நாட்டில் வேலையில்லாத திண்டாட்டத்தின் சவால்கள் மற்றும் வேலையின்மையின் அளவை கண்டறிய தமிழக அரசு எடுத்துள்ள நடவடிக்கைகள் என்ன என்பதைப் பற்றியும் விவாதிக்கவும்.

- Definition
- Data
- Unemployment During COVID Period
- Current Status
- Schemes in General / During COVID Period / Current Schemes
- Entrepreneurship

PAPER I UNIT- III: GENERAL APTITUDE & MENTAL ABILITY (SSLC STANDARD)

14. Answer the following questions

பின்வரும் வினாக்களுக்கு விடையளி

a. The ratio of the radii of two right circular cones of same height is 1:3. Find the ratio of their curved surface area when the height of each cone is 3 times the radius of the smaller cone.

சம உயரங்களையுடைய இரு நேர் வட்டக் கூம்புகளின் ஆரங்கள் 1 : 3 என்ற விகிதத்தில் உள்ளன. கூம்புகளின் உயரம் சிறிய கூம்பின் ஆரத்தின் மூன்று மடங்கு எனில், வளைபரப்புகளின் விகிதம் காண்க

Solution:

$$\text{Given } r_1 : r_2 = 1 : 3$$

$$\Rightarrow 1x : 3x$$

$$h_1 = 3x$$

$$h_2 = 3x$$

$$\begin{aligned} l_1 &= \sqrt{r_1^2 + h_1^2} \\ &= \sqrt{x^2 + (3x)^2} \\ &= \sqrt{x^2 + 9x^2} \\ &= \sqrt{10x^2} \\ &= \sqrt{10}x \end{aligned}$$

$$\begin{aligned} l_2 &= \sqrt{r_2^2 + h_2^2} \\ &= \sqrt{(3x)^2 + (3x)^2} \\ &= \sqrt{9x^2 + 9x^2} \\ &= \sqrt{18x^2} \\ &= 3\sqrt{2}x \end{aligned}$$

$$\therefore CSA_1 : CSA_2$$

$$\begin{aligned}\frac{\pi r_1 l_1}{\pi r_2 l_2} &= \frac{\pi \times 1x \times \sqrt{10}x}{\pi \times 3x \times 3\sqrt{2}x} \\ &= \frac{\sqrt{10}}{9\sqrt{2}} = \frac{\sqrt{2 \times 5}}{9\sqrt{2}} \\ &= \frac{\sqrt{2} \times \sqrt{5}}{9\sqrt{2}} = \frac{\sqrt{5}}{9} \\ &= \sqrt{5} : 9\end{aligned}$$

∴ The ratio of their curved surface areas = $\sqrt{5} : 9$

b. X speaks truth in 70 percent of cases, and Y in 90 percent of cases. What is the probability that they likely to contradict each other in stating the same fact?

X என்பவர் 70% தருணங்களில் உண்மையே பேசுவார். Y என்பவர் 90% தருணங்களில் உண்மையே பேசுவார் எனில் ஒரே கருத்தை இருவரும் கூறுகையில் ஒருவருக்கொருவர் முரண்பட்ட கருத்தினைத் தெரிவிப்பதற்கான நிகழ்தகவு யாது?

Solution:

Let A be the event of X speaks the truth and B be the event of Y speaks the truth

∴ \bar{A} is the event of X not speaking the truth and \bar{B} is the event of Y not speaking the truth. Let C be the event that they will contradict each other.

Given that

$$P(A) = 0.70 \Rightarrow P(\bar{A}) = 1 - P(A) = 0.30$$

$$P(B) = 0.90 \Rightarrow P(\bar{B}) = 1 - P(B) = 0.10$$

C = (A speaks truth and B does not speak truth or B speaks truth and A does not speak truth)

$$C = [(A \cap \bar{B}) \cup (\bar{A} \cap B)]$$

Since $(A \cap \bar{B})$ and $(\bar{A} \cap B)$ are mutually exclusive,

$$P(C) = P(A \cap \bar{B}) + P(\bar{A} \cap B)$$

$$= P(A)P(\bar{B}) + P(\bar{A})P(B)$$

$$= (0.70)(0.10) + (0.30)(0.90)$$

$$= 0.070 + 0.270 = 0.34$$

$$P(C) = 0.34.$$

15. Following are the runs scored by two batsmen in 5 cricket matches.

Batsman A	38	47	34	18	33
Batsman B	37	35	41	27	35

Consider the statistical measures: Range, Standard deviation and coefficient of variation and find who is more consistent in scoring runs.

5 கிரிக்கெட் விளையாட்டு போட்டிகளில் இரண்டு மட்டை வீரர்கள் எடுத்த ஓட்டங்கள் பின்வருமாறு

மட்டைவீரர் A	38	47	34	18	33
மட்டைவீரர் B	37	35	41	27	35

வீச்சு, திட்டவிலக்கம், மாறுபாட்டுக் கெழு என்ற புள்ளியில் அளவுகளை கொண்டு அவர்களில் ஓட்டங்கள் எடுப்பதில் யார் அதிக சீமைத் தன்மை உடையவர் எனக்காண்க

Solution:

Batsman A

Range = Maximum Value - Minimum Value

Range of Batsman A = 47 - 18 = 29

x	$d = x - \bar{x}$	d^2
18	-16	256
33	-1	1
34	0	0
38	4	16
47	13	169
170	0	442

Now

$$\bar{x} = \frac{170}{5} = 34$$

$$\text{Standard deviation } \sigma = \sqrt{\frac{\sum d^2}{n}}$$

$$= \sqrt{\frac{442}{5}} = \sqrt{88.4}$$

$$\sigma \approx 9.4$$

$$\text{Coefficient of variation, C.V} = \frac{\sigma}{\bar{x}} \times 100$$

$$= \frac{9.4}{34} \times 100$$

$$= \frac{940}{34}$$

$$= 27.65$$

Batsman B

Range = Maximum Value - Minimum Value

Range of Batsman B = 41 - 27 = 14

x	$d = x - \bar{x}$	d^2
27	-8	64
35	0	0
35	0	0
37	2	4
41	6	36
175	0	104

$$\bar{x} = \frac{175}{5} = 35$$

$$\text{Standard deviation } \sigma = \sqrt{\frac{\sum d^2}{n}}$$

$$= \sqrt{\frac{104}{5}} = \sqrt{20.8}$$

$$\sigma \approx 4.6$$

$$\text{Coefficient of variation, C.V} = \frac{\sigma}{\bar{x}} \times 100$$

$$= \frac{4.6}{35} \times 100$$

$$= \frac{460}{35} = \frac{92}{7}$$

$$= 13.14$$

∴ The coefficient of variation for the runs scored by Batsman A is 27.65(1)

∴ The coefficient of variation for the runs scored by Batsman B is 13.14 (2)

From (1) and (2), the coefficient of variation for B is less than the coefficient of variation for A.

∴ Batsman B is more consistent than the batsman A in scoring the runs.

PAPER II UNIT- I: INDIAN POLITY AND EMERGING POLITICAL TRENDS ACROSS THE WORLD AFFECTING INDIA

16. To what extent the constitution has empowered the Parliament in the Re-organisation of the States in India. Highlight the evolution of the States and Union Territories in India.

இந்தியாவில் மாநிலங்களை மறுசீரமைப்பதில் அரசியலமைப்பானது நாடாளுமன்றத்திற்கு எந்த அளவிற்கு அதிகாரம் அளித்துள்ளது. இந்தியாவில் மாநிலங்கள் மற்றும் யூனியன் பிரதேசங்களின் பரிணாம வளர்ச்சியை குறிப்பிடுக.

The names of states and union territories and their territorial extent are mentioned in the first schedule of the Constitution. At present, there are 28 states and 8 union territories

The states are the members of the federal system and share a distribution of powers with the Centre. The union territories and the acquired territories, on the other hand, are directly administered by the Central government.

Article 2

Article 2 empowers the Parliament to 'admit into the Union of India, or establish, new states on such terms and conditions as it thinks fit'. Thus, Article 2 grants two powers to the Parliament: (a) the power to admit into the Union of India new states; and (b) the power to establish new states. The first refers to the admission of states which are already in existence while the second refers to the establishment of states which were not in existence before.

Article 3

Article 3, on the other hand, relates to the formation of or changes in the existing states of the Union of India. In other words, Article 3 deals with the internal re-adjustment inter se of the territories of the constituent states of the Union of India.

Parliament's Power to reorganise the states

Article 3 lays down two conditions in this regard: one, a bill contemplating the above changes can be introduced in the Parliament only with the prior recommendation of the President; and two, before recommending the bill, the President has to refer the same to the state legislature concerned for expressing its views within a specified period.

The power of Parliament to form new states includes the power to form a new state or union territory by uniting a part of any state or union territory to any other state or union territory.

The President (or Parliament) is not bound by the views of the state legislature and may either accept or reject them, even if the views are received in time. Further, it is not necessary to make a fresh reference to the state legislature every time an amendment to the bill is moved and accepted in Parliament

It is thus clear that the Constitution authorises the Parliament to form new states or alter the areas, boundaries or names of the existing states without their consent. In other words, the Parliament can redraw the political map of India according to its will.

Hence, the territorial integrity or continued existence of any state is not guaranteed by the Constitution.

Moreover, the Constitution (Article 4) itself declares that laws made for admission or establishment of new states (under Article 2) and formation of new states and alteration of areas, boundaries or names of existing states (under Articles 3) are not to be considered as amendments of the Constitution under Article 368. This means that such laws can be passed by a simple majority and by the ordinary legislative process.

Evolution of States and Union Territories

Integration of Princely States

At the time of independence, India comprised two categories of political units, namely, the British provinces (under the direct rule of British government) and the princely states (under the rule of native princes but subject to the paramountcy of the British Crown). The Indian Independence Act (1947) created two independent and separate dominions of India and Pakistan and gave three options to the princely states viz., joining India, joining Pakistan or remaining independent. Of the 552 princely states situated within the geographical boundaries of India, 549 joined India and the remaining 3 (Hyderabad, Junagarh and Kashmir) refused to join India. However, in course of time, they were also integrated with India—Hyderabad by means of police action, Junagarh by means of referendum and Kashmir by the Instrument of Accession.

- Dhar Commission and JVP Committee
- Fazl Ali Commission

New States and Union Territories Created After 1956

- Maharashtra and Gujarat
- Dadra and Nagar Haveli
- Goa, Daman and Diu
- Puducherry
- Nagaland
- Haryana, Chandigarh and Himachal Pradesh

- Manipur, Tripura and Meghalaya
- Sikkim
- Mizoram, Arunachal Pradesh and Goa
- Chattisgarh, Uttarakhand and Jharkhand
- Telangana

New States and Union Territories Created After 1956

1. **Maharashtra and Gujarat** In 1960, the bilingual state of Bombay was divided into two separate states—Maharashtra for Marathi-speaking people and Gujarat for Gujarati-speaking people. Gujarat was established as the 15th state of the Indian Union.
2. **Dadra and Nagar Haveli** The Portuguese ruled this territory until its liberation in 1954. Subsequently, the administration was carried on till 1961 by an administrator chosen by the people themselves. It was converted into a union territory of India by the **10th Constitutional Amendment Act, 1961**.
3. **Goa, Daman and Diu** India acquired these three territories from the Portuguese by means of a police action in 1961. They were constituted as a union territory by the **12th Constitutional Amendment Act, 1962**. Later, in 1987, Goa was conferred a statehood. Consequently, Daman and Diu was made a separate union territory.
4. **Puducherry** The territory of Puducherry comprises the former French establishments in India known as Puducherry, Karaikal, Mahe and Yanam. The French handed over this territory to India in 1954. Subsequently, it was administered as an 'acquired territory', till 1962 when it was made a union territory by the **14th Constitutional Amendment Act**.
5. **Nagaland** In 1963, the State of Nagaland was formed by taking the Naga Hills and Tuensang area out of the state of Assam. This was done to satisfy the movement of the hostile Nagas. However, before giving Nagaland the status of the 16th state of the Indian Union, it was placed under the control of governor of Assam in 1961.

6. Haryana, Chandigarh and Himachal Pradesh

In 1966, the State of Punjab was bifurcated to create Haryana, the 17th state of the Indian Union, and the union territory of Chandigarh. This followed the demand for a separate 'Sikh Homeland' (Punjabi Subha) raised by the Akali Dal under the leadership of Master Tara Singh. On the recommendation of the Shah Commission (1966), the Punjabi-speaking areas were constituted into the unilingual state of Punjab, the Hindi-speaking areas were constituted into the State of Haryana and the hill areas were merged with the adjoining union territory of Himachal Pradesh. In 1971, the union territory of Himachal Pradesh was elevated to the status of a state (18th state of the Indian Union).

7. Manipur, Tripura and Meghalaya

In 1972, the political map of Northeast India underwent a major change. Thus, the two Union Territories of Manipur and Tripura and the Sub-State of Meghalaya got statehood and the two union territories of Mizoram and Arunachal Pradesh (originally known as North-East Frontier Agency—NEFA) came into being. With this, the number of states of the Indian Union increased to 21 (Manipur 19th, Tripura 20th and Meghalaya 21st).

Initially, the 22nd Constitutional Amendment Act (1969) created Meghalaya as an 'autonomous state' or 'sub-state' within the state of Assam with its own legislature and council of ministers. However, this did not satisfy the aspirations of the people of Meghalaya. The union territories of Mizoram and Arunachal Pradesh were also formed out of the territories of Assam.

8. Sikkim

Till 1947, Sikkim was an Indian princely state ruled by Chogyal. In 1947, after the lapse of British paramountcy, Sikkim became a 'protectorate' of India, whereby the Indian Government assumed responsibility for the defence, external affairs and communications of Sikkim. In 1974, Sikkim expressed its desire for greater association with India. Accordingly, the 35th Constitutional Amendment Act (1974) was enacted by the parliament. This amendment introduced a new class of statehood under the constitution by conferring on Sikkim the status of an 'associate state' of the Indian Union. For this purpose, a new Article 2A and a new schedule (Tenth Schedule conserving the terms and conditions of association) were inserted in the Constitution. This experiment, however, did not last long as it could not fully satisfy the aspirations of the people of Sikkim. In a referendum held in 1975, they voted for the abolition of the institution of Chogyal and Sikkim becoming an integral part of India. Consequently, the 36th Constitutional Amendment Act (1975) was enacted to make Sikkim a full-fledged state of the Indian Union (the 22nd state). This amendment amended the First and the Fourth Schedules to the Constitution and added a new Article 371-F to provide for certain special provisions with respect to the administration of Sikkim. It also repealed Article 2A and the Tenth Schedule that were added by the 35th Amendment Act of 1974.

9. Mizoram, Arunachal Pradesh and Goa

In 1987, three new States of Mizoram, Arunachal Pradesh and Goa came into being as the 23rd, 24th and 25th states of the Indian Union respectively. The Union Territory of Mizoram was conferred the status of a full state as a sequel to the signing of a memorandum of settlement (Mizoram Peace Accord) in 1986 between the Central government and the Mizo National Front, ending the two-decade-old insurgency. Arunachal Pradesh had also been a union territory from 1972. The State of Goa was created by separating the territory of Goa from the Union Territory of Goa, Daman and Diu.

10. Chhattisgarh, Uttarakhand and Jharkhand

In 2000, three more new States of Chhattisgarh, Uttarakhand and Jharkhand were created out of the territories of Madhya Pradesh, Uttar Pradesh and Bihar respectively. These became the 26th, 27th and 28th states of the Indian Union respectively. Thus, the number of states and union territories increased from 14 and 6 in 1956 to 28 and 7 in 2000 respectively.

Jammu and Kashmir and Ladakh

Till 1954, the erstwhile State of Jammu and Kashmir had its own constitution and thus enjoyed a special status by virtue of Article 370 of the Constitution of India. In 1954, this special status was abolished by a presidential order known as "The Constitution (Application to Jammu and Kashmir) Order, 1954". This order superseded the earlier order known as "The Constitution (Application to Jammu and Kashmir) Order, 1954". The 1954 order extended all the provisions of the Constitution of India to Jammu and Kashmir also. However, the inoperative Article 370 continue to remain in the text of the Constitution of India.

Further, the Jammu and Kashmir Reorganisation Act, 2019, bifurcated the erstwhile State of Jammu and Kashmir into two separate union territories, namely, the union territory of Jammu and Kashmir and the union territory of Ladakh.

PAPER II UNIT- II: ROLE AND IMPACT OF SCIENCE AND TECHNOLOGY IN THE DEVELOPMENT OF INDIA

17. What is meant by food fortification? Discuss the role of food fortification in addressing the malnutrition in India.

உணவு ஊட்டமேற்றுதல் என்றால் என்ன? இந்தியாவில் ஊட்டச்சத்து குறைபாட்டை நிவர்த்தி செய்வதில் உணவு ஊட்டமேற்றுதலின் பங்கு பற்றி விவாதி.

Food fortification

Recently the Prime Minister of India announced fortification of rice distributed under various government schemes including the **Public Distribution System (PDS)** and **Mid-Day-Meal scheme** by 2024.

Rationale Behind the move

- **Malnutrition** is a **big hurdle** in the development of **women and children**. In view of this, it has been decided to **fortify the rice distributed under the different schemes**
- The announcement is significant as the government distributes over 300 lakh tonnes of rice under various schemes covered under the **National Food Security Act, 2013**.
 - The Centre has allocated 328 lakh tonnes of rice for Targeted Public Distribution System (TPDS), **Mid-Day-Meal scheme** and Integrated Child Development Services (ICDS) under NFSA during 2021-22.
 - India accounts for over one-fifth of the world's rice production. It is also the largest consumer of rice, with a per capita rice consumption of 6.8 kilograms per month.

About Fortification of Rice

- It refers to the **addition** of key **vitamins and minerals** to increase the nutritional value of rice.
- The fortified Rice generally contains **Vitamin A, Vitamin B1, Vitamin B12, Folic Acid, Iron and Zinc**.

- **Methods are available for the fortification:** There are several methods available for the fortification of rice and the method chosen depends on the local technology available, costs and other preferences.
 - Rice can be fortified by adding a **micronutrient powder** to the rice that adheres to the **grains or spraying the surface of ordinary rice grains** in several layers with a **vitamin and mineral mix** to form a protective coating.
 - Rice can also be **extruded and shaped into partially pre-cooked grain-like** structures resembling rice grains, which can then be blended with **natural polished rice**.
 - Rice kernels can be fortified with **several micronutrients, such as iron, folic acid and other B-complex vitamins, vitamin A and zinc**.
 - Rice fortification on a national scale requires a large, cost-effective and sustainable supply of fortified kernels
- **Norms of FSSAI :** According to the FSSAI norms, 1 kg fortified rice shall contain iron (28mg-42.5mg), folic acid (75-125 microgram) and Vitamin B-12 (0.75-1.25 microgram). In addition, rice may also be fortified with micronutrients, singly or in combination, at the level- zinc(10mg-15mg), Vitamin A (500-750 microgram RE), Vitamin B1 (1mg-1.5mg), Vitamin B2 (1.25mg-1.75mg), Vitamin B3 (12.5mg-20mg) and Vitamin B6 (1.5mg-2.5mg) per Kg.

WHO recommendations

- Fortification of rice with **iron** is recommended as a **public health strategy** to improve the **iron status of populations**, in settings where rice is a **staple food**.
- Fortification of rice with **vitamin A** may be used as a public health strategy to improve the **iron status and vitamin A nutrition of populations**.
- Fortification of **rice with folic acid** may be used as a public health strategy to improve the **folate nutritional status of populations**.

Initiatives were taken by India in this direction

- The Ministry of Consumer Affairs, Food and Public Distribution had launched a centrally sponsored pilot scheme on “**Fortification of Rice and its Distribution under Public Distribution System (PDS)**” for a period of three years beginning 2019-20 with a total budget outlay of Rs.174.64 crore.
 - The pilot scheme focuses on 15 districts in 15 states- Andhra Pradesh, Kerala, Karnataka, Maharashtra, Odisha, Gujarat, Uttar Pradesh, Assam, Tamil Nadu, Telangana, Punjab, Chhattisgarh, Jharkhand, Uttarakhand and Madhya Pradesh.
- Under the scheme, the blending of rice is done at the milling stage.
- The Scheme is funded by the Government of India in the ratio of **90:10** in respect of North Eastern, hilly and island states and 75:25 in respect of the rest.
- **Mission Poshan 2.0:** In the Union Budget 2021-22, the Union Finance Minister had announced Mission Poshan 2.0.
- The supplementary nutrition programme and the Poshan Abhiyaan has been merged to launch **Mission Poshan 2.0** to strengthen nutritional content, delivery, outreach, and outcome.

About Food fortification

- The Food Safety and Standards Authority of India (FSSAI), which sets standards for food items in the country, defines fortification as “deliberately increasing the content of essential micronutrients(**vitamins and minerals (including trace elements)**) in a food so as to improve the nutritional quality of food and to provide public health benefits with minimal risk to health.
- It is a **proven, safe and cost-effective strategy** for improving diets and for the prevention and control of micronutrient deficiencies.
- In 2018, FSSAI had notified standards of fortification for five staple product categories – milk, edible oil, rice, flour and salt.
- It has also launched the ‘F+’ logo to be displayed on labels of fortified food products for easy identification by consumers.

Food for thought

Fortification of eatables is aimed at fighting malnutrition

What it means

Fortification is the addition of key vitamins and minerals, such as iron, iodine, zinc, Vitamins A & D, to staple foods such as rice, milk and salt to improve their nutritional content



- The nutrients may or may not have been originally present in the food before processing
- It is a simple, proven, cost-effective and complementary strategy in use across the globe
- The draft Food Safety and Standards Regulations, 2016, prescribe the standards for fortification of salt, oil, milk, and rice

Advantages

- Eliminate malnutrition and nutritional deficiencies.
- Provides extra nutrition at affordable costs.
- **Safe:** Fortification is a safe method of improving nutrition among people. The addition of micronutrients to food does not pose a health risk to people.
- **Socio-culturally acceptable way:** It does not require any changes in the food habits and patterns of people. It is a socio-culturally acceptable way to deliver nutrients to people.

- **Cost-effective:** Food fortification is a cost-effective strategy to improve the nutrition status of populations and it is associated with high economic benefits.
 - It requires an initial investment to purchase both the equipment and the vitamin and mineral premix, but overall costs of fortification are extremely low.

Disadvantages

- **Low coverage:** Only a handful of nutrients are added in the process of fortification.
- Other **nutritional deficiencies remain untreated** by the process.
- **Fail to reach the poorest segments of society:** Many times, fortified food products fail to reach the poorest segments of society, who are among the worst section affected with nutritional deficiencies.
 - Low purchasing power and a weak distribution channel are responsible for this problem.
- Fortified foods could lead to a **nutritional overdose**.

Food Safety and Standards Authority of India (FSSAI)

- It has been established under the Food Safety and Standards Act, 2006, which consolidates various acts and orders that have hitherto handled food-related issues.
- It works as an autonomous body established under the Ministry of Health and Family Welfare, Government of India.
- **Aims:**
 - To establish a single reference point for all matters relating to food safety and standards.
 - To lay down science-based standards for articles of food and to regulate their manufacture, storage, distribution, sale and import to ensure availability of safe and wholesome food for human consumption.

Integrated Child Development Services (ICDS)

- It was launched on 2nd October 1975 and it represents one of the world's largest and unique programmes for early childhood care and development.
- The beneficiaries under the Scheme are children in the age group of 0-6 years, pregnant women and lactating mothers
- Ministry of Women and Child Development is the implementing agency

Public Distribution System

- It is an **Indian food security system** for the management of food scarcity through distribution at affordable prices.

- It was established under the **Ministry of Consumer Affairs, Food and Public Distribution**.
- It is operated under the joint responsibility of the Central and State Governments.
- The Central Government, through the Food Corporation of India (FCI), purchases, stores, transports and allocates food grains to States.
- The States identify eligible families, issue Ration Cards and supervise the functioning of Fair Price Shops (FPSs) etc.
- Currently, wheat, rice, sugar and kerosene are allocated to the States/UTs for distribution and a few of them also distribute additional items like pulses, edible oils, iodized salt, spices, etc.

18. Answer the following questions

பின்வரும் வினாக்களுக்கு விடையளி

a. Highlight the significance of Operation Smiling Buddha and Operation Shakti.

சிரிக்கும் புத்தர் நடவடிக்கை மற்றும் ஆயிரேசன் சக்தி நடவடிக்கையின் முக்கியத்துவம் பற்றி எழுதுக.

Smiling buddha

- The peaceful test -- codenamed 'Smiling Buddha' -- conducted in 1974 helped India become the sixth country in the world to conduct a nuclear test.
- The test was conducted on May 18, 1974 under the supervision of Raja Ramanna, who was then the director of India's premier nuclear research institute Bhabha Atomic Research Centre (BARC).
- The test was named 'Smiling Buddha' because it was conducted on Buddha Purnima that year.

Operation shakti

- After the 1974 tests, India conducted five tests - three on May 11 and two on May 13, 1998. The tests codenamed 'Operation Shakti' were carried out again at the Pokhran test range when Atal Bihari Vajpayee was the Prime Minister.
- (May 11) is National Technology Day, celebrated to mark the day on which India successfully test-fired its first nuclear bombs in 1998. Between May 11 and May 13, 1998, five devices were tested during the nuclear tests in Rajasthan's Pokhran.

b. Nuclear Technology for a sustainable future - Discuss

நிலையான எதிர்காலத்திற்கான அணுசக்தி தொழில்நுட்பம் - விவாதி

- Population growth, accelerating economic development, and changing lifestyles demand ever more resources.
- Resource overuse has begun to compromise "natural services" such as biodiversity, clean air, fresh water and arable land; a trend that threatens the

sustainability of development. “Natural services” are inextricably interlinked. Decisions related to the management of a single resource impacts others. Yet, today at the national level, future land, water and energy policies are usually planned by separately operating institutions. An integrated system is needed to bring decision-makers together to address the complex challenge of designing development policies for an uncertain future. Integrated solutions can resiliently adapt to a changing climate and the natural resource constraints that could exacerbate existing inequalities

- Increased access to sufficient, safe water is made possible through nuclear techniques that map ground water resources more affordably and more quickly than any other means, and thus improve water managers’ ability to sustain this irreplaceable resource. Nuclear techniques enhance the efficiency of agricultural irrigation, which uses 70% of all freshwater resources.
- Access to affordable energy directly improves human welfare; current projections foresee electricity demand increasing by 60 to 100% between today and 2030. Low carbon sources of energy, such as nuclear energy, minimize the greenhouse gases emitted in energy generation and mitigate the negative impact of climatic disruption on development. The IAEA helps countries using or introducing nuclear power to do so safely, securely, economically and sustainably. Its safety standards, assistance and reviews increase safety for the benefit of human health and the environment.
- Access to sustainable sources of food will remain a preeminent challenge in the decades to come. Based upon current practice and consumption, agricultural production will have to increase by about 70% by 2050 to meet demand. Nuclear techniques are used in developing countries to increase production sustainably by breeding improved crops, enhancing livestock reproduction and nutrition, as well as controlling animal and plant pests and diseases. Post-harvest losses can be reduced and safety increased with nuclear technology. Soil can be evaluated with nuclear techniques to conserve and improve soil productivity and water management.
- To better understand and protect oceans, nuclear techniques are used to monitor the ocean’s shifting chemical balance caused by ocean acidification that can stunt and endanger coral and microorganisms’ growth. This chemical shift can limit the habitats and disrupt the food chain for the species that supply up to a third of all protein consumed by humans. Nuclear techniques are also powerful tools used to acquire an accurate picture of the ocean’s distant past. With an improved understanding of past climates, predictions about this enormous, life-sustaining realm’s future will be more accurate.
- Health for millions of patients relies upon the safe and effective diagnosis and treatment of disease. Nuclear techniques provide precise diagnostic information that is of vital importance in detecting and curing both infectious and non-communicable diseases such as cancer. Radiopharmaceuticals are used to treat disease and to enable diagnostic imaging. Radiotherapy also employs focused

radiation beams that are essential in curing diseases. In the developing world, infectious and non-communicable diseases, as well as malnutrition, create a socio-economic burden that threatens sustainability. The safe, well-coordinated use of nuclear techniques to detect, diagnose and treat disease and to combat malnutrition contributes to improved health and social stability throughout the world

PAPER II UNIT- III : TAMIL SOCIETY AND ITS CULTURE AND HERITAGE

19. Discuss the impact of Dravidian Movement in Tamil Society.

தமிழ் சமூகத்தில் திராவிட இயக்கத்தின் தாக்கம் குறித்து விவாதி

- Definition of Dravidian Movement
- Impact on caste
- Impact on religion
- Impact on culture
- Impact on women
- Impact on education
- Impact on Government jobs
- Impact on Tamil Language and Literature
- Impact on Administration
- Impact on Print and Electronic Media
- Impact on Drama / Movies
- Impact Digital World

20. Describe the growth and development of Tamil Literature during the 20th Century.

இருபதாம் நூற்றாண்டின் தமிழ் இலக்கிய வளர்ச்சி குறித்து விரிவாக எழுதுக

- Introduction
- Growth of prose and poetry
- Contributions of Vallalar, Bharathiar, Bharathidasan, Namakal Kavi, Kavimani, Surada etc.
- Novels
- Short Stories
- Dramas