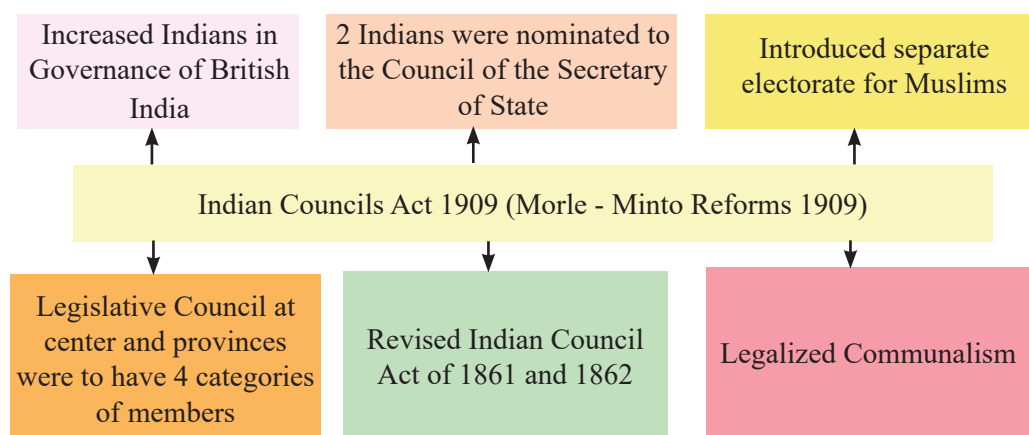# BPSC

Q1. **(a) The Indian Councils Act of 1909** 8

Ans- The Indian Councils Act of 1909, also known as the Morley-Minto Reforms, was a significant legislative act passed by the British Parliament. It aimed to increase Indian participation in the governance of British India. Here are some key points about the Act:

- **Expansion of Legislative Councils:** The Act expanded the size of the legislative councils at both the central and provincial levels. The Central Legislative Council's membership increased from 16 to 60 members.

- **Introduction of Elections:** For the first time, the Act introduced elections to the legislative councils. This allowed a limited number of Indians to be elected to these councils.

- **Separate Electorates for Muslims:** One of the most notable features of the Act was the introduction of separate electorates for Muslims. This meant that Muslims could elect their representatives separately, which was a demand made by the All India Muslim League.

- **Inclusion of Indians in Executive Councils:** The Act allowed for the inclusion of Indians in the executive councils of the Viceroy and the Governors of Bombay and Madras.

The Indian Councils Act of 1909 was a step towards greater Indian involvement in governance, but it also had its limitations and criticisms. It was seen as a way to appease the growing demand for self-governance while maintaining British control over India.

Increased Indians in Governance of British India	2 Indians were nominated to the Council of the Secretary of State	Introduced separate electorate for Muslims

Indian Councils Act 1909 (Morle - Minto Reforms 1909)

Legislative Council at center and provinces were to have 4 categories of members	Revised Indian Council Act of 1861 and 1862	Legalized Communalism

Q1. **(b) Paharia Uprising** **8**

Ans- The Paharia Uprising, also known as the Pahariyas Rebellion, took place in 1778 in the Rajmahal Hills of Bihar. Here are some key points about the uprising:

- **Background:** The Pahariyas were a tribal group residing in the Rajmahal Hills. They practiced shifting cultivation and relied on forest resources for their livelihood. They had maintained their independence before the arrival of the British.

- **Causes:** The British expansion and the establishment of settled agriculture led to the reduction of forest areas, which affected the Paharias' way of life. The British also imposed taxes and disrupted their traditional practices.

- **The Uprising:** The Paharias, led by Raja Jagganath, revolted against the British in 1778. They conducted frequent raids on established settlements as a form of resistance.

- **British Response:** The British launched a brutal campaign against the Paharias, hunting them down and killing many. In the 1780s, the British introduced a pacification strategy, offering annual stipends to Pahariya leaders to ensure their cooperation.

The Paharia Uprising was one of the early tribal revolts against British colonial rule in India. It highlighted the resistance of indigenous communities to the encroachment on their lands and way of life.

Q1. **(c) Swadeshi Movement** **8**

Ans- The Swadeshi Movement was a significant part of India's struggle for independence from British rule. It began in 1905 as a response to the partition of Bengal by the British government. Here are some key points about the movement:

- **Origin:** The movement was formally launched on August 7, 1905, at the Calcutta Town Hall. It aimed to promote Indian goods and boycott British products.

- **Leaders:** Prominent leaders of the movement included Bal Gangadhar Tilak, Bipin Chandra Pal, Lala Lajpat Rai, and Aurobindo Ghosh. They played a crucial role in mobilizing the masses.

- **Methods:** The movement encouraged the use of Swadeshi (indigenous) goods and the boycott of British goods. It also promoted the revival of domestic industries and the use of Khadi.

- **Impact:** The Swadeshi Movement had a significant impact on Indian society. It fostered a sense of national pride and self-reliance. It also led to the establishment of various educational institutions, industries, and banks.

- **Cultural Influence:** The movement inspired a wave of cultural revival, with a focus on Indian art, literature, and music. It also saw the rise of nationalist sentiments and the spread of the idea of self-rule (Swaraj).

The Swadeshi Movement was a powerful expression of Indian nationalism and played a crucial role in the broader struggle for independence.

Q1. **(d) Development of Sufism in Bihar** 7

Ans- The development of Sufism in Bihar has a rich and fascinating history. Here are some key points about its evolution:

- **Early Influence:** Sufism in Bihar began to take root during the early medieval period, with the arrival of Sufi saints from Persia and Central Asia. These saints played a crucial role in spreading Islamic teachings and Sufi philosophy.

- **Prominent Sufi Saints:** Bihar has been home to several renowned Sufi saints, such as Makhdoom Sharfuddin Yahya Maneri, Sultan Ahmad Chirmposh, and Muzaffar Shams Balkhi. These saints contributed significantly to the spiritual and cultural landscape of the region.

- **Cultural Impact:** The Sufi saints of Bihar were instrumental in promoting Persian language and literature. Their teachings and writings, including Maktubat (letters), Malfuzat (discourses), and other mystical tracts, have left a lasting impact on the cultural heritage of Bihar.

- **Sufi Orders:** Various Sufi orders, such as the Chishti, Qadiri, and Firdausi orders, established their presence in Bihar. These orders attracted followers from different walks of life and played a vital role in the spiritual and social life of the region.

The legacy of Sufism in Bihar continues to be celebrated through the annual Urs (death anniversary) of Sufi saints, which attract devotees from across the country. The teachings of these saints continue to inspire people and promote values of love, tolerance, and harmony.

Q1.   (e) Manjusha Painting   **7**

Ans- Manjusha Painting, also known as Manjusha Art, is a traditional folk art form from the Ang region, which is now known as Bhagalpur (tha Ang Pradesh) in Bihar. Here are some key points about Manjusha Painting:

- **Origin:** Manjusha Art dates back to the 7th century and is deeply rooted in the folklore of Bihula-Bishari. It is associated with the Bishahari Puja, a festival dedicated to the Snake God.

- **Materials:** The paintings are created on temple-shaped boxes made of bamboo, jute, and paper. These boxes, known as Manjushas, are used in the Bishahari Puja.

- **Themes:** The art form primarily depicts the tale of Bihula's love and sacrifice. The paintings often feature swirling snakes, which are central to the story.

- **Colors and Style:** Manjusha Art is characterized by the use of three main colors: pink, green, and yellow. It is a line drawing art form with significant emphasis on borders, which include motifs like Belpatr, Lehariya, and series of snakes.

- **Cultural Significance:** Manjusha Art is not just a visual art form but also a representation of the cultural and religious heritage of Bihar. It portrays various characters and motifs, including Lord Shiva, Mansa Devi (Bishari), and Bihula.

Manjusha Art was awarded the Geographical Indication (GI) tag in 2021. This recognition helps preserve the cultural heritage of Manjusha Art and ensures that only authorized artisans can use the name "Manjusha Art" for their products.

Q2. **(a) "The cultural heritage of Bihar, with its rich traditions, art, and festivals, adds vibrant hues to the tapestry of India." Explain in detail.** **38**

Ans- Bihar is a land of diverse cultural heritage with a history that dates back to ancient times. It has been a cradle of civilization, the birthplace of religions, and a hub of intellectual pursuits. The cultural heritage of Bihar is rich and multifaceted, encompassing a variety of traditions, art forms, and festivals that add vibrant hues to the tapestry of India. In this detailed exploration, we will delve into the various aspects that contribute to the cultural richness of Bihar.

1. Historical Significance

- Bihar's cultural legacy is deeply tied to its ancient civilizations.

- It was the seat of powerful empires like the **Magadha** and **Mauryan Dynasties.**

- **Nalanda** and **Vikramshila,** ancient centers of learning, highlight Bihar's scholarly prominence.

2. Religious Heritage

- **Buddhism:** Bodh Gaya is the site of Lord Buddha's enlightenment, with the **Mahabodhi Temple** being a UNESCO World Heritage Site.

- **Jainism:** Bihar is the birthplace of Lord Mahavira, the 24th Tirthankara.

- **Hinduism:** Includes important festivals like the **Sonepur Mela** and various temples.

- **Sikhism:** The birth of Guru Gobind Singh at **Patna Sahib** adds to the religious importance.

3. Art and Craft

- **Madhubani Art:** An internationally renowned art form with intricate designs from the Mithila region.

- **Manjusha Art:** Originating in Bhagalpur, known for its bright colors and traditional motifs.

- **Handicrafts:** Includes Bhagalpuri silk sarees, Sikki grass products, and terracotta work, reflecting Bihar's cultural identity.

4. Music and Dance

- **Folk Music:** Bhojpuri, Maithili, and Magahi songs are integral to festivals and rituals.

- Instruments such as the **Dholak, Harmonium,** and **Bansuri** enrich these traditions.

- **Dance:** Traditional performances like **Jat-Jatin, Sohar-Khilona,** and **Bidesia,** which mirror rural life.

5. Festivals
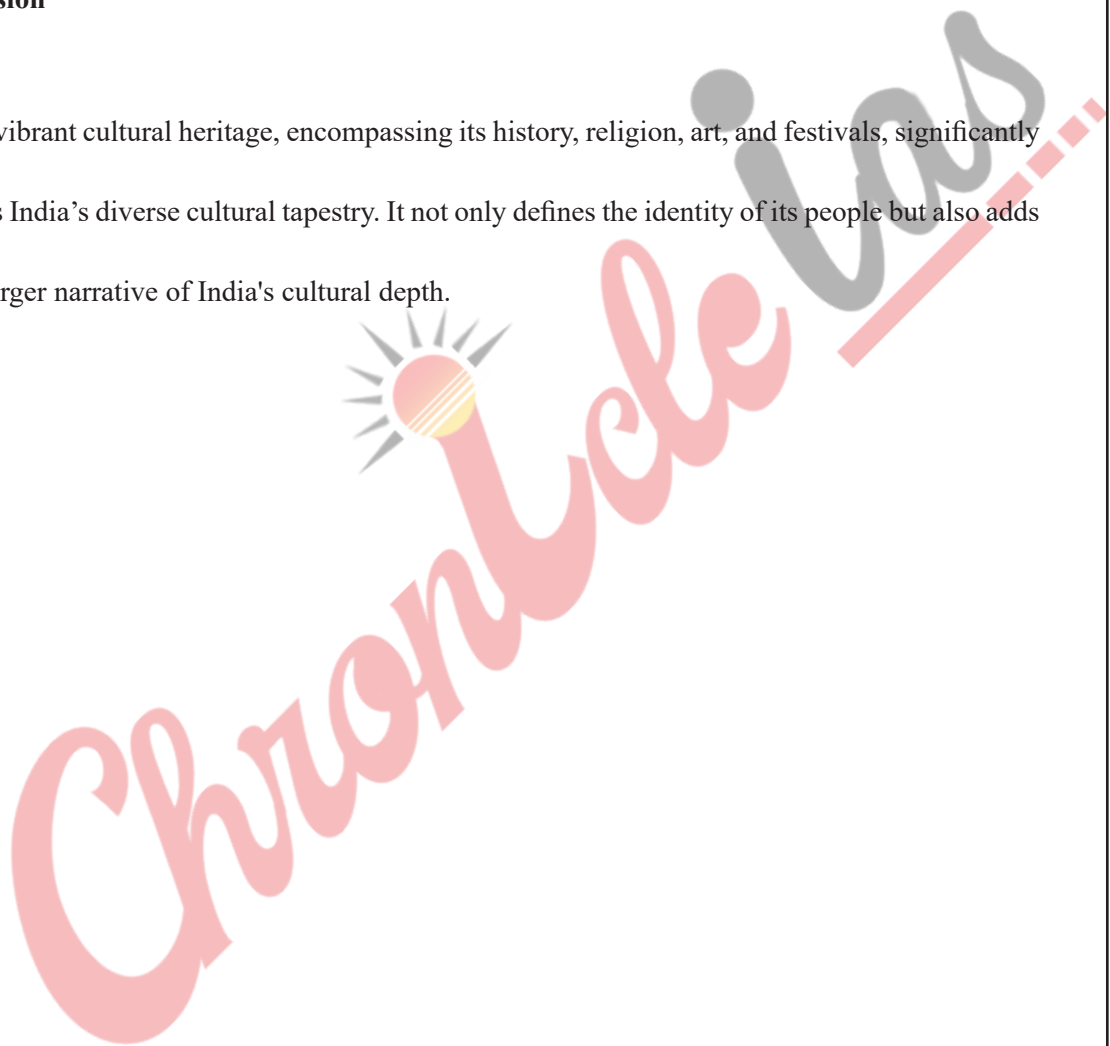
- **Chhath Puja:** A unique festival dedicated to the Sun God and Chhathi Maiya.

- Major festivals include **Makar Sankranti, Holi, Diwali,** and **Eid.**

- **Rajgir Mahotsav** and **Sonepur Mela** celebrate Bihar's culture with music, dance, and crafts.

6. Cuisine

- Signature dishes include **Litti-Chokha, Sattu Paratha, Dal Pitha,** and **Thekua.**

- Famous sweets like **Silao Ka Khaja** and **Anarsa** contribute to Bihar's rich culinary legacy.

Conclusion

Bihar's vibrant cultural heritage, encompassing its history, religion, art, and festivals, significantly enriches India's diverse cultural tapestry. It not only defines the identity of its people but also adds to the larger narrative of India's cultural depth.

Or / अथवा

Q2. **(b) Evaluate the Civil Disobedience Movement and explain its impacts on the Indian Freedom Struggle.** **38**

Ans- The Civil Disobedience Movement, launched by Mahatma Gandhi in 1930, was a pivotal phase in India's struggle for independence from British colonial rule. This movement marked a significant shift in the Indian freedom struggle, emphasizing non-violent resistance and mass mobilization. In this detailed evaluation, we will explore the background, key events, and impacts of the Civil Disobedience Movement on the Indian freedom struggle.

Background and Causes

- Born out of political and economic grievances against British rule.

- **Failure of Simon Commission (1927-28):** Widespread discontent due to no Indian representation.

- **Purna Swaraj:** Complete independence declared as the goal by the Indian National Congress in the Lahore Session (December 1929) under Jawaharlal Nehru.

- **Economic Exploitation:** British policies, such as high taxes and the monopoly on salt production, further fuelled the demand for self-rule.

Key Events

- **Launch:** Initiated on March 12, 1930, with the historic **Dandi March (Salt March)** led by Mahatma Gandhi.

  o Gandhi and 78 followers marched 240 miles from Sabarmati Ashram to Dandi, Gujarat.

  o On April 6, 1930, Gandhi broke the salt law by making salt from seawater, symbolizing defiance against British authority.

- **Spread of the Movement:**

  o People began making salt illegally, boycotting British goods, refusing to pay taxes, and resigning from government jobs.

  o Participation across society, including women, students, and peasants.

- **Role of Leaders:**
  - Prominent leaders like Jawaharlal Nehru, Sardar Vallabhbhai Patel, and Sarojini Naidu played crucial roles in mobilizing the masses.

Impacts on the Indian Freedom Struggle

The Civil Disobedience Movement had far-reaching impacts on the Indian freedom struggle, both in terms of its immediate effects and its long-term consequences.

- **Mass Mobilization:** The movement brought together Indians from diverse backgrounds, including different castes, religions, and regions. It fostered a sense of unity and collective identity among the Indian populace, strengthening the nationalistic fervor.

- **International Attention:** The non-violent nature of the movement and the brutal British response garnered international attention. The global community became more aware of the Indian struggle for independence, and the British government faced increasing pressure to address Indian demands.

- **Weakening British Authority:** The widespread non-cooperation and defiance of British laws led to a decline in British revenue and control. The British administration struggled to maintain order and faced significant challenges in governing the country.

- **Non-Violent Resistance:** The Civil Disobedience Movement popularized Gandhi's methods of non-violent resistance (Satyagraha) on a large scale. It demonstrated the power of peaceful protest and inspired future movements, both within India and globally.

- **Political Negotiations:** The movement forced the British government to engage in negotiations with Indian leaders. The Gandhi-Irwin Pact of 1931 was a direct outcome of the movement, leading to the release of political prisoners and the participation of the Indian National Congress in the Second Round Table Conference.

- **Empowerment of Women:** The movement saw significant participation from women, who played active roles in protests, marches, and the production of salt. This involvement marked a shift in the traditional roles of women and contributed to their empowerment in Indian society.

- **Economic Impact:** The boycott of British goods and the promotion of indigenous products (Swadeshi) had a substantial economic impact. It encouraged the growth of local industries and reduced dependence on British imports.

- **Legacy and Inspiration:** The Civil Disobedience Movement left a lasting legacy in the Indian freedom struggle. It inspired subsequent movements, such as the Quit India Movement of 1942, and continued to influence the strategies and tactics of the Indian National Congress.

Limitations and Criticisms of the Civil Disobedience Movement

1. Lack of Immediate Success

- The movement did not lead to immediate independence.
- The British government retained control over India during and after the movement.

2. Limited Participation

- Certain sections of society, such as the industrial working class and princely states, showed limited involvement in the movement.

3. Internal Divisions

- Differences arose within the Indian National Congress regarding the methods and goals of the movement.
- Disagreements weakened the overall coordination and unity of the struggle.

Conclusion

The Civil Disobedience Movement was a defining moment in India's struggle for independence. It mobilized millions of Indians, weakened British authority, and popularized non-violent resistance. While it had its limitations, the movement's impacts on the Indian freedom struggle were profound and far-reaching. It laid the foundation for future movements and played a crucial role in shaping the course of India's journey towards independence.

Q3. **(a) Critically examine the contribution of great revolutionaries in the Indian freedom movement.** **38**

Ans- The Indian freedom movement was marked by the contributions of numerous revolutionaries who played a crucial role in the struggle for independence. These revolutionaries, driven by a deep sense of patriotism and a desire to overthrow British rule, adopted various methods to achieve their goals. In this critical examination, we will explore the contributions of some of the great revolutionaries and their impact on the Indian freedom movement.

Early Revolutionary Activities

The revolutionary movement in India can be traced back to the late 19th and early 20th centuries. The Chapekar brothers, Damodar, Balkrishna, and Vasudeo, were among the earliest revolutionaries who assassinated British officials in Pune in 1897. Their actions inspired a wave of revolutionary activities across the country.

Anushilan Samiti and Jugantar

The Anushilan Samiti and Jugantar were two prominent revolutionary organizations in Bengal. Founded by Aurobindo Ghosh, Barindra Kumar Ghosh, and others, these organizations aimed to overthrow British rule through armed struggle. They carried out several acts of violence, including the Alipore Bomb Case in 1908, where Khudiram Bose and Prafulla Chaki attempted to assassinate a British judge.

Bhagat Singh and the Hindustan Socialist Republican Association (HSRA)

Bhagat Singh, one of the most iconic revolutionaries, was a member of the HSRA. Along with Rajguru, Sukhdev, and others, Bhagat Singh carried out several high-profile actions, including the assassination of British police officer J.P. Saunders in 1928. The HSRA also orchestrated the bombing of the Central Legislative Assembly in 1929 to protest against repressive laws.

Chandrashekhar Azad

Chandrashekhar Azad was a key figure in the HSRA and played a significant role in organizing and leading revolutionary activities. He was involved in several daring acts, including the Kakori Train

Robbery in 1925, which aimed to fund revolutionary activities by looting a British train carrying government money.

Subhas Chandra Bose and the Indian National Army (INA)

Subhas Chandra Bose, a prominent leader of the Indian National Congress, later formed the Indian National Army (INA) to fight against British rule. With the support of Japan, Bose led the INA in several military campaigns against the British in Southeast Asia. His famous slogan, "Give me blood, and I will give you freedom," inspired many Indians to join the struggle.

Impact on the Indian Freedom Movement

The contributions of these revolutionaries had a profound impact on the Indian freedom movement:

- **Inspiration and Motivation:** The courage and sacrifices of revolutionaries like Bhagat Singh, Chandrashekhar Azad, and others inspired a generation of Indians to join the freedom struggle. Their actions instilled a sense of pride and determination among the masses.

- **Highlighting Injustices:** The revolutionary activities brought international attention to the injustices and atrocities committed by the British in India. The trials and executions of revolutionaries often garnered widespread sympathy and support for the Indian cause.

- **Pressure on the British Government:** The persistent revolutionary activities created a sense of insecurity among the British authorities. The fear of armed rebellion forced the British government to adopt repressive measures, which in turn fueled further resistance.

- **Complementing Non-Violent Movements:** While the revolutionaries adopted violent methods, their actions complemented the non-violent movements led by Mahatma Gandhi and the Indian National Congress. The combined pressure from both violent and non-violent fronts made it increasingly difficult for the British to maintain their control over India.

Criticisms and Limitations

Despite their significant contributions, the revolutionary movement faced several criticisms and limitations:

- **Lack of Mass Support:** The revolutionary activities were often limited to small groups and did not always have widespread support from the masses. The focus on violent methods sometimes alienated potential supporters who preferred non-violent means.

- **Repressive Measures:** The British government responded to revolutionary activities with severe repression, including arrests, executions, and censorship. This made it challenging for revolutionary organizations to sustain their activities.

- **Fragmentation and Lack of Coordination:** The revolutionary movement was often fragmented, with different groups operating independently and sometimes conflicting with each other. The lack of a unified strategy and coordination limited the overall effectiveness of their efforts.

Conclusion

The great revolutionaries of the Indian freedom movement played a crucial role in the struggle for independence. Their courage, sacrifices, and determination inspired generations of Indians and highlighted the injustices of British rule. While their methods and impact were sometimes limited, their contributions complemented the broader freedom movement and added to the pressure on the British government. The legacy of these revolutionaries continues to be remembered and celebrated as an integral part of India's journey to independence.

BPSC

Q3. **(b) Discuss the development of the farmer's movement under the leadership of Swami Sahajanand Saraswati in Bihar and its effects.** **38**

Ans- The farmer's movement in Bihar, under the leadership of Swami Sahajanand Saraswati, played a significant role in the broader struggle for agrarian rights and social justice in India. Swami Sahajanand Saraswati, a prominent freedom fighter and social reformer, dedicated his life to improving the conditions of farmers and peasants. Here is a detailed discussion on the development of the farmers' movement under his leadership and its effects:

Formation of the Bihar Provincial Kisan Sabha

In 1929, Swami Sahajanand Saraswati founded the Bihar Provincial Kisan Sabha (BPKS) to address the grievances of farmers and peasants. The Bihar Provincial Kisan Sabha aimed to organize and mobilize farmers against the oppressive practices of landlords (zamindars) and the British colonial administration. The organization quickly gained popularity and became a major political force in Bihar.

Key Issues and Agitations

The Bihar Provincial Kisan Sabha focused on several key issues affecting farmers, including high rents, forced labor (begar), and the eviction of tenant farmers. The movement also addressed the problem of bakasht lands, which were lands cultivated by tenants but claimed by zamindars.

- **Rent Reduction and Arrears Cancellation:** One of the primary demands of the Bihar Provincial Kisan Sabha was the reduction of rents and the cancellation of arrears. The organization held numerous meetings and agitations to press for these demands. In 1934, the

Kisan Sabha took up the issue of rent reduction at its session in Gaya, leading to widespread peasant agitations across Bihar.

- **Bakasht Movement:** The Bakasht movement (1936-38) was a significant phase of the farmers' movement under Swami Sahajanand Saraswati's leadership. It protested the eviction of tenant farmers by zamindars and demanded the restoration of bakasht lands to the tenants. The movement saw large-scale participation from farmers and led to several confrontations with the authorities.

- **Anti-Zamindari Campaign:** Swami Sahajanand Saraswati was a vocal critic of the zamindari system and advocated for its abolition. He believed that the zamindari system was a major cause of rural poverty and exploitation. The Bihar Provincial Kisan Sabha campaigned for the abolition of zamindari and the establishment of a more equitable land tenure system.

Impact of the Farmers' Movement

The farmers' movement under Swami Sahajanand Saraswati had several significant effects on the socio-political landscape of Bihar and India:

- **Empowerment of Farmers:** The movement empowered farmers and peasants by giving them a platform to voice their grievances and demand their rights. It instilled a sense of unity and solidarity among the rural population.

- **Legislative Reforms:** The persistent agitations and demands of the Bihar Provincial Kisan Sabha led to several legislative reforms aimed at improving the conditions of farmers. The Bihar Tenancy Act of 1938, which provided some relief to tenant farmers, was a direct outcome of the movement's efforts.

- **Influence on National Politics:** The farmers' movement in Bihar had a significant influence on national politics. It brought agrarian issues to the forefront of the Indian freedom struggle and highlighted the need for land reforms. The movement also influenced the policies and strategies of the Indian National Congress and other political parties.

- **Legacy of Swami Sahajanand Saraswati:** Swami Sahajanand Saraswati's leadership and dedication to the cause of farmers left a lasting legacy. He continued to work for agrarian rights and social justice until his death in 1950. His contributions are remembered and celebrated by farmers' organizations and social activists in India.

Conclusion

The farmers' movement under the leadership of Swami Sahajanand Saraswati was a crucial chapter in the history of agrarian struggles in India. It addressed the pressing issues faced by farmers and peasants and brought about significant socio-political changes. The movement's emphasis on unity, empowerment, and social justice continues to inspire contemporary agrarian movements in India.

BPSC

Section-II

Q4. **(a) "The increasing reliance on suo motu jurisdiction by the Supreme Court is a sign of judicial overreach." Critically evaluate this statement.** **8**

Ans- Suo motu jurisdiction allows the Supreme Court of India to initiate legal proceedings on its own accord without a formal petition. While this power aims to address urgent issues and uphold justice, its increasing reliance has sparked debates about judicial overreach.

Arguments for Judicial Overreach:

- **Separation of Powers:** Critics argue that frequent use of suo motu powers encroaches on the executive and legislative domains, disrupting the balance of power. For instance, in 2020, the Supreme Court took suo motu cognizance of the migrant workers' crisis during the COVID-19 lockdown, addressing issues related to their welfare and transportation.

- **Undermining Democracy:** Excessive judicial intervention in policy matters can undermine democratic processes and the authority of elected representatives. This concern was evident when, in 2021, the Court initiated a suo motu case to address pollution in rivers, highlighting the need for effective measures to combat environmental degradation.

- **Case Backlog:** Suo motu cases can add to the already burdened judicial system, delaying justice in other important matters.

Arguments against Judicial Overreach:

- **Access to Justice:** Suo motu actions can address issues affecting marginalized and vulnerable groups who may lack the means to approach the court. The Supreme Court's suo motu cognizance in 2024 of the rape and murder of a doctor in Kolkata's RG Kar Medical College and Hospital emphasized the need for swift justice and protection of women's rights.

- **Accountability:** The judiciary can hold the government accountable for its actions or inactions, ensuring adherence to constitutional principles.

- **Public Interest:** The power can be used to address pressing public interest matters, such as environmental protection and human rights violations.

While suo motu jurisdiction serves as a crucial tool for upholding justice, its judicious use is necessary to maintain the balance of power and prevent judicial overreach.

Q4. **(b) Evaluate the role of technology in improving the transparency and efficiency of the public distribution system in the country.** **8**

Ans- Technology has played a pivotal role in enhancing the transparency and efficiency of the Public Distribution System (PDS) in India. Here are some key points highlighting its impact:

- **Computerized Supply Chain Management:** Implementation of computerized systems in supply chain management has reduced manual interventions, minimizing errors, leakages, and inefficiencies.

- **Biometric Authentication:** Introduction of biometric authentication and electronic Point of Sale (ePoS) devices ensures that subsidies reach the intended recipients by eliminating duplicate and ghost beneficiaries.

- **Online Platforms:** Creation of online platforms allows beneficiaries to access crucial information such as entitlements, prices, and distribution schedules through websites and mobile applications.

- **Data Analytics:** Adoption of data analytics and machine learning enables authorities to predict demand patterns, optimize stock levels, and identify areas susceptible to leakages or inefficiencies.

- **Aadhar-Linked Ration Cards:** Use of Aadhar-linked ration cards has streamlined beneficiary identification and reduced fraudulent practices.

- **End-to-End Computerization:** Computerization of supply chain operations has improved the monitoring and tracking of food grain distribution, ensuring timely delivery and reducing pilferage.

In conclusion, technology has become a cornerstone in the evolution of the PDS, significantly contributing to its efficiency and effectiveness by enhancing transparency, accountability, and data-driven decision-making.

Q4. **(c) Discuss, how India's participation in the International Big Cat Alliance (IBCA) reflects its commitment to global tiger conservation efforts.** **8**

Ans- India's participation in the International Big Cat Alliance (IBCA) underscores its unwavering commitment to global tiger conservation efforts. The IBCA, launched in 2023, is a multi-country coalition aimed at conserving big cats and their habitats. India's involvement in this alliance highlights several key aspects of its dedication to tiger conservation:

- **Leadership Role:** India, home to a significant population of tigers, has taken a leadership role in the IBCA. By hosting the alliance's headquarters and providing financial support, India demonstrates its proactive approach to global conservation.

- **Sharing Best Practices:** India's successful tiger conservation programs, such as Project Tiger, serve as models for other countries. Through the IBCA, India shares its expertise and best practices, contributing to the global effort to protect big cats.

- **International Collaboration:** India's participation in the IBCA fosters international collaboration, enabling countries to work together to combat poaching, habitat loss, and other threats to big cats. This collective effort enhances the effectiveness of conservation initiatives.

- **Commitment to Biodiversity:** By joining the IBCA, India reaffirms its commitment to preserving biodiversity and protecting endangered species. This aligns with its broader environmental goals and international agreements, such as the Convention on Biological Diversity.

India's active involvement in the IBCA reflects its dedication to safeguarding tigers and other big cats, ensuring their survival for future generations.

Q4. **(d) Evaluate the role of the Digital India Trust Agency (DIGITA) proposed by the RBI in combating cyber fraud.** **7**

Ans- The proposed Digital India Trust Agency (DIGITA) by the Reserve Bank of India (RBI) aims to combat cyber fraud and illegal lending apps. Here are some key points highlighting its role:

- **Verification of Digital Lending Apps:** DIGITA will vet digital lending apps to ensure compliance with RBI regulations and guidelines. This will help in identifying and eliminating fraudulent apps.

- **Public Register of Verified Apps:** The agency will maintain a public register of verified digital lending apps, making it easier for consumers to identify legitimate apps and avoid fraudulent ones.

- **Combating Financial Crimes:** Apps lacking the verified mark from DIGITA will be considered unauthorized for law enforcement purposes, serving as a crucial checkpoint in combating financial crimes in the digital domain.

- **Collaboration with Tech Companies:** DIGITA will collaborate with tech companies like Google to whitelist legitimate digital lending apps and remove unauthorized ones from app stores.

- **Transparency and Accountability:** The establishment of DIGITA will promote transparency and accountability within the digital lending sector, ensuring that consumers are protected from cyber fraud and unethical practices.

In conclusion, the Digital India Trust Agency (DIGITA) proposed by the RBI is a significant step towards enhancing the security and integrity of the digital lending ecosystem, thereby combating cyber fraud effectively.

Q4. **(e) Analyse the significance of the new US-India COMPACT initiative launched during the recent bilateral talks.** **7**

Ans- The US-India COMPACT (Catalyzing Opportunities for Military Partnership, Accelerated Commerce & Technology) initiative, launched during the recent bilateral talks, marks a significant milestone in the strategic partnership between the United States and India. Here are some key points highlighting its significance:

- **Strengthening Défense Cooperation:** The initiative establishes a new ten-year framework for the US-India Major Defence Partnership, focusing on Defence procurements, co-production, and technology transfer. This will enhance military collaboration and interoperability between the two nations.

- **Advancing Defence Technologies:** The launch of the Autonomous Systems Industry Alliance (ASIA) under the initiative will spur innovation in AI-enabled counter-UAS and maritime Defence, accelerating cooperation in space, air Defence, missile systems, maritime, and undersea operations.

- **Economic and Trade Expansion:** The initiative aims to double bilateral trade to $500 billion by 2030 under "Mission 500." This includes negotiating a Bilateral Trade Agreement focusing on fair trade, national security, and job creation.

- **Boosting Technology and Innovation Ties:** The US-India TRUST initiative, part of COMPACT, will boost cooperation in Defence, AI, semiconductors, quantum computing, biotechnology, energy, and space. This will drive transformative change across key sectors.

- **Space Cooperation and Critical Minerals Partnership:** The initiative includes deepening space collaboration and introducing INDUS Innovation, inspired by the INDUS-X platform, to drive academic and industrial partnerships in space and emerging tech.

In conclusion, the US-India COMPACT initiative reflects a comprehensive approach to strengthening the strategic partnership between the two nations, focusing on Defence, trade, technology, and innovation. It underscores the mutual commitment to addressing global challenges and enhancing bilateral cooperation for a prosperous future.

BPSC

Q5. **(a) Analyse the common causes and impacts of frequent stampede incidents in India over the past few years. Highlight the role of crowd management and infrastructure in preventing such tragedies. Additionally, discuss the measures that can be implemented to enhance public safety during large gatherings.** **38**

Ans- Stampede incidents in India have been a recurring tragedy, often resulting in significant loss of life and injuries. These incidents are typically triggered by a combination of factors, including overcrowding, panic, poor crowd management, and inadequate infrastructure. In this analysis, we will explore the common causes and impacts of stampede incidents, the role of crowd management and infrastructure in preventing such tragedies, and the measures that can be implemented to enhance public safety during large gatherings.

Common Causes of Stampede Incidents

- **Overcrowding:** One of the primary causes of stampedes is overcrowding. Large gatherings, especially at religious events, often exceed the capacity of the venue, leading to congestion and restricted movement. For instance, the Mahakumbh Mela in Prayagraj in 2025 witnessed a tragic stampede due to the overwhelming crowd.

- **Panic and Rumours:** Sudden panic triggered by rumours or false alarms can lead to chaotic crowd behaviour. People may rush towards exits or safer areas, causing a stampede. The 2024 Hathras incident is an example where panic led to a deadly stampede.

- **Poor Crowd Control:** Inadequate crowd control measures, such as insufficient staffing, lack of proper barricades, and uncontrolled access points, contribute to stampede incidents. The underestimation of crowd size and lack of coordination among agencies exacerbate the situation.

- **Structural Failures:** Weak temporary structures, narrow entry and exit points, and poor barricading create hazards during large gatherings. The collapse of unauthorized structures or weak guardrails can trigger a stampede.

- **Fire and Electrical Issues:** Short circuits, lack of fire extinguishers, or poor lighting can create panic situations, leading to stampedes. The absence of emergency exits further complicates the situation.

Impacts of Stampede Incidents

- **Loss of Life and Injuries:** Stampedes often result in fatalities and severe injuries due to trampling, suffocation, and blunt force trauma. The Mahakumbh Mela stampede in 2025 resulted in 30 deaths and 60 injuries.

- **Psychological Trauma:** Survivors and witnesses of stampede incidents experience

psychological trauma, including post-traumatic stress disorder (PTSD), anxiety, and depression. This affects their mental well-being and productivity.

- **Economic Hardship:** Families of victims face financial strain due to medical expenses, loss of breadwinners, and funeral costs. This is particularly challenging for marginalized sections of society.

- **Damage to Infrastructure:** Stampedes cause significant damage to public and private property, leading to economic losses and long-term recovery challenges.

- **Erosion of Trust in Institutions:** Negligence in planning and execution undermines public confidence in organizers, authorities, and institutions managing such events.

Role of Crowd Management and Infrastructure

Effective crowd management and robust infrastructure are crucial in preventing stampede incidents. Here are some key aspects:

- **Crowd Estimation and Management:** Authorities must assess the expected crowd size, control entry points, and regulate footfall. Pre-registration and ticketing systems can help manage the crowd effectively.

- **Infrastructure and Safety Measures:** Strong barricades, emergency exits, and adequate ventilation must be ensured. Proper lighting, fire safety measures, and clear signage are essential for crowd safety.

- **Security and Surveillance:** Deployment of CCTV cameras, public address systems, and trained security personnel to monitor crowd movement is vital. Real-time monitoring and communication can help manage the crowd efficiently.

- **Emergency Preparedness:** Medical teams, ambulances, and fire-fighting units should be strategically stationed for rapid response. Regular drills and training for emergency situations are essential.

- **Public Awareness and Information Dissemination:** Educating attendees through signboards, helpline numbers, and real-time digital updates can help avoid panic situations. Clear communication channels are crucial for crowd management.

Measures to Enhance Public Safety

To enhance public safety during large gatherings, the following measures can be implemented:

- **Strict Pre-Registration and Ticketing:** Implement mandatory online registrations to control entry limits and avoid overcrowding.

- **Advanced AI-Based Monitoring:** Use AI and drones for real-time crowd analysis, predicting surges, and preventing congestion.

- **Training of Security and Volunteers:** Deploy well-trained personnel with expertise in crowd psychology and emergency responses. Regular training and drills are essential.

- **Improved Infrastructure:** Ensure robust infrastructure with adequate entry and exit points, strong barricades, and proper lighting. Regular maintenance and inspections are necessary.

- **Coordination among Agencies:** Effective coordination among event organizers, law enforcement, emergency services, and other stakeholders is crucial for crowd management.

- **Public Awareness Campaigns:** Conduct public awareness campaigns to educate attendees about safety protocols, emergency exits, and crowd behaviour.

Conclusion

Stampede incidents in India are a tragic reminder of the importance of effective crowd management and robust infrastructure. By addressing the common causes and implementing comprehensive safety measures, we can prevent such tragedies and ensure the safety and well-being of attendees at large gatherings. The role of technology, public awareness, and coordinated efforts among stakeholders is crucial in creating a safe environment for all.

BPSC

Q5. **(b) Evaluate the recent steps taken by US President Donald Trump in international relations, particularly focusing on his approach towards Ukraine, NATO, and European allies. Discuss the implications of his foreign policy decisions on global geopolitics, the transatlantic alliance, and the established international order. Additionally, analyse how these steps could create opportunities for India's role in the world.** **38**

Ans- US President Donald Trump's recent steps in international relations have sparked significant debate and controversy. His approach towards Ukraine, NATO, and European allies has been particularly noteworthy, with far-reaching implications for global geopolitics, the transatlantic alliance, and the established international order. These steps have their potential impact, as well as the opportunities for India to increase its role in the new changing world.

1. Approach towards Ukraine

- A mix of **support and confrontation** defines Trump's stance on Ukraine.

- The US provided military aid to counter Russian aggression.

- Trump criticized Ukrainian President **Volodymyr Zelensky,** accusing him of ingratitude, which strained US-Ukraine relations.

2. NATO and European Allies

- Trump demanded **increased defense spending** from NATO members, criticizing their failure to meet financial commitments.

- His **transactional approach** led to tensions within the alliance, with European leaders questioning the US's reliability as a security partner.

- Focus shifted towards strengthening ties with **Russia and China,** sidelining traditional European allies.

3. Implications for Global Geopolitics

- Trump's policies recalibrated America's global role, creating a **multipolar world.**

- Nations like **China and Russia** reassessed their foreign policies in response.

- Concerns arose over the **stability of traditional alliances** and the future of the international order.

4. Impact on the Transatlantic Alliance

- The transatlantic alliance faced significant strain due to Trump's criticism of NATO and European allies.

- European nations began rethinking their **security strategies** and increasing defence spending.

- The rift highlighted by the **Zelensky confrontation** further strained US-Europe relations.

5. Established International Order

- Trump's unilateral approach disrupted the **post-World War II balance of power.**

- His policies emphasized **competition over cooperation,** challenging multilateral norms.

- This shift led to increased **global competition** and revaluation of alliances.

Opportunities for India's Role in the World

Trump's foreign policy decisions and the resulting shifts in global geopolitics create several opportunities for India to enhance its role on the world stage:

- **Strengthening Strategic Partnerships:** As the US realigns its foreign policy, India can strengthen its strategic partnerships with both the US and European nations. By positioning itself as a reliable partner, India can enhance its influence in global affairs.

- **Economic Collaboration:** The focus on regional responsibility and the recalibration of alliances provides India with opportunities to expand its economic collaboration with other nations. India's growing economy and technological advancements make it an attractive partner for trade and investment.

- **Leadership in Multilateral Forums:** With the established international order facing challenges, India can take on a more prominent role in multilateral forums such as the United Nations, G20, and BRICS. By advocating for inclusive and equitable global governance, India can shape the new world order.

- **Regional Stability and Security:** India's strategic location and its role as a regional power position it to contribute to stability and security in South Asia and the Indo-Pacific region. By enhancing its defense capabilities and engaging in regional security initiatives, India can play a crucial role in maintaining peace and stability.

Conclusion

President Donald Trump's recent steps in international relations have had profound implications for global geopolitics, the transatlantic alliance, and the established international order. While his approach has created challenges and uncertainties, it also presents opportunities for India to enhance its role on the world stage. By strengthening strategic partnerships, expanding economic collaboration, taking on leadership roles in multilateral forums, and contributing to regional stability and security, India can navigate the evolving global landscape and assert its influence in shaping the future of international relations.

Q6. **(a) Analyse the implications of the implementation of the National Education Policy (NEP) 2024 on India's education system. Discuss the potential benefits and challenges of the policy, and its impact on access to quality education, curriculum changes, and the role of technology in education.** **19 + 19 = 38**

Ans- The National Education Policy (NEP) 2024 represents a significant shift in India's educational landscape, aiming to transform the system to meet the demands of the 21st century. Here is an analysis of the implications of its implementation, focusing on the potential benefits, challenges, and its impact on access to quality education, curriculum changes, and the role of technology in education.

Potential Benefits

- **Holistic and Multidisciplinary Education:** NEP 2024 emphasizes a holistic and multidisciplinary approach to education, encouraging students to explore diverse subjects and develop critical thinking, creativity, and problem-solving skills.

- **Early Childhood Care and Education (ECCE):** The policy places a strong emphasis on early childhood care and education, recognizing the importance of foundational learning in the early years. This is expected to improve learning outcomes and reduce dropout rates.

- **Curriculum Reforms:** The introduction of the 5+3+3+4 structure replaces the traditional 10+2 system, aligning educational stages with the developmental needs of children aged 3 to 18 years. This structure aims to make education more age-appropriate and developmentally aligned.

- **Increased Access to Quality Education:** NEP 2024 aims to ensure equitable access to quality education for all students, regardless of their socio-economic background. This includes initiatives to improve infrastructure, teacher training, and learning resources in rural and underserved areas.

- **Integration of Vocational Education:** The policy emphasizes the integration of vocational education into mainstream education, providing students with practical skills and enhancing their employability.

- **Promotion of Regional Languages:** NEP 2024 promotes multilingualism and the use of regional languages in education, ensuring that students can learn in their mother tongue during the foundational years.

Challenges

- **Implementation and Infrastructure:** One of the major challenges is the effective implementation of the policy across diverse regions of India. Ensuring adequate infrastructure, trained teachers, and resources in rural and remote areas remains a significant hurdle.

- **Teacher Training and Capacity Building:** The success of NEP 2024 depends on the capacity and quality of teachers. Continuous professional development and training programs are essential to equip teachers with the skills needed to deliver the new curriculum.

- **Financial Constraints:** Implementing the policy's recommendations requires substantial financial investment. Ensuring adequate funding and resource allocation is crucial for the successful execution of the policy.

- **Resistance to Change:** The transition to a new education system may face resistance from various stakeholders, including educators, parents, and institutions. Addressing concerns and building consensus is essential for smooth implementation.

Impact on Access to Quality Education

- **Equitable Access:** NEP 2024 aims to bridge the gap between urban and rural education by improving infrastructure, teacher quality, and learning resources in underserved areas. This is expected to enhance access to quality education for all students.

- **Inclusive Education:** The policy emphasizes inclusive education, ensuring that children with disabilities and those from marginalized communities have access to quality education. This includes provisions for special educators and support services.

- **Reduction in Dropout Rates:** By focusing on foundational learning and providing support for students at risk of dropping out, NEP 2024 aims to reduce dropout rates and improve retention in schools.

Curriculum Changes

- **Flexible and Multidisciplinary Curriculum:** The new curriculum framework encourages flexibility and multidisciplinary learning, allowing students to choose subjects based on their interests and aptitudes.

- **Focus on Critical Skills:** The curriculum emphasizes the development of critical skills such as critical thinking, problem-solving, creativity, and digital literacy. This prepares students for the challenges of the modern world.

- **Integration of Vocational Education:** The inclusion of vocational education in the curriculum ensures that students acquire practical skills and are better prepared for the workforce.

Role of Technology in Education

- **Digital Learning Platforms:** NEP 2024 promotes the use of digital learning platforms and online resources to enhance the learning experience. This includes the development of e-content and digital libraries.

- **Blended Learning:** The policy encourages a blended learning approach, combining traditional classroom teaching with online and digital resources. This provides flexibility and personalized learning opportunities for students.

- **Teacher Training in Technology:** To effectively integrate technology in education, the policy emphasizes the need for teacher training in digital tools and pedagogies. This ensures that teachers are equipped to use technology to enhance teaching and learning.

- **Access to Technology:** Ensuring access to technology and digital infrastructure, especially in rural and underserved areas, is a key focus of NEP 2024. This includes providing devices, internet connectivity, and digital literacy programs.

Conclusion

The National Education Policy 2024 has the potential to transform India's education system by promoting holistic and multidisciplinary learning, improving access to quality education, and integrating technology in education. However, the successful implementation of the policy requires addressing challenges related to infrastructure, teacher training, financial constraints, and resistance to change. By overcoming these challenges, NEP 2024 can pave the way for a more inclusive, equitable, and future-ready education system in India.

BPSC

Q6. **(b) Discuss the relevance of the recent milestone of 100th missions by ISRO. Highlight the major missions that contributed to this achievement. Analyse the technological advancements made by ISRO in reaching here, the challenges faced and its impact on India's space exploration and satellite technology.** **38**

Ans- The recent milestone of 100th missions by the Indian Space Research Organisation (ISRO) marks a significant achievement in India's space exploration journey. This milestone, achieved with the successful launch of the GSLV-F15 mission carrying the NVS-02 navigation satellite, underscores ISRO's growing capabilities and contributions to space technology.

Relevance of the 100th Missions Milestone

- **Demonstration of Technological Prowess:** Achieving 100th missions showcases ISRO's technological advancements and its ability to execute complex space missions. This milestone reflects the organization's growth from its humble beginnings to becoming a key player in the global space arena.

- **Enhanced Global Standing:** The milestone enhances India's reputation in the international space community, positioning ISRO as a reliable and capable space agency. It opens up opportunities for international collaborations and commercial partnerships.

- **Boost to National Pride:** The achievement instills a sense of national pride and inspires future generations to pursue careers in science, technology, engineering, and mathematics (STEM).

Major Missions Contributing to the Achievement

- **Chandrayaan Missions:** Chandrayaan-1 (2008) was India's first lunar mission, which discovered water molecules on the Moon's surface. Chandrayaan-2 (2019) aimed to explore the lunar South Pole, and Chandrayaan-3 (2023) successfully demonstrated a soft landing on the Moon.

- **Mars Orbiter Mission (Mangalyaan):** Launched in 2013, Mangalyaan made India the first country to reach Mars on its maiden attempt. It provided valuable data on the Martian atmosphere and surface.

- **Gaganyaan Mission:** India's first human spaceflight mission, Gaganyaan, aims to send Indian astronauts to space. The mission is a significant step towards establishing India's human spaceflight capabilities.

- **NavIC (Navigation with Indian Constellation):** The NavIC system, consisting of a series of satellites, provides accurate positioning and timing information over India and surrounding regions. The recent NVS-02 satellite is part of this system.

- **Aditya-L1 Mission:** Launched in 2023, Aditya-L1 is India's first solar mission, aimed at studying the solar corona and other solar phenomena.

Technological Advancements

- **Indigenous Cryogenic Engines:** ISRO developed indigenous cryogenic engines for the GSLV series, enhancing its capability to launch heavier payloads into geosynchronous orbits.

- **Reusable Launch Vehicle (RLV):** ISRO is working on developing reusable launch vehicles to reduce the cost of access to space. The successful test of the Inflatable Aerodynamic Decelerator (IAD) is a step towards this goal.

- **Advanced Satellite Technology:** ISRO has developed advanced satellite technologies, including high-resolution imaging, communication, and navigation satellites. The integration of indigenous atomic clocks in the NavIC satellites is a notable achievement.

- **Human Spaceflight Technology:** The Gaganyaan mission involves the development of life support systems, crew modules, and other technologies essential for human spaceflight.

Challenges Faced

- **Budget Constraints:** ISRO operates with a relatively modest budget compared to other major space agencies. Despite this, it has achieved remarkable cost-effectiveness in its missions.

- **Technological Development:** Developing cutting-edge technology, such as cryogenic engines and reusable launch vehicles, poses significant challenges. ISRO has had to overcome numerous technical hurdles through research and innovation.

- **International Competition:** ISRO faces competition from other space agencies and private companies in the global space market. Maintaining a competitive edge requires continuous innovation and efficiency.

Impact on India's Space Exploration and Satellite Technology

- **Enhanced Capabilities:** The milestone of 100th missions has significantly enhanced India's capabilities in space exploration and satellite technology. ISRO's achievements have positioned India as a leader in space technology and exploration.

- **Socio-Economic Benefits:** ISRO's missions have provided numerous socio-economic benefits, including improved communication, weather forecasting, disaster management, and resource planning.

- **Inspiration and Education:** ISRO's achievements inspire students and promote careers in STEM fields. Educational initiatives related to space technology stimulate interest in science and technology.

- **International Collaborations:** ISRO's success has led to increased international collaborations, enabling India to participate in global space missions and contribute to the advancement of space science.

In conclusion, the milestone of 100th missions by ISRO is a testament to India's growing capabilities in space exploration and satellite technology. The major missions, technological advancements, and the challenges faced highlight ISRO's journey towards becoming a key player in the global space arena. The impact of ISRO's achievements extends beyond space exploration, contributing to national development and inspiring future generations.

BPSC

Section-III

Q7. **(a) What was the percentage increase in the production of wheat and rice between 2015 and 2020?** **8**

Solution:- General Formula :

$$\left(\frac{\text{Last Price} - \text{Intital Price}}{\text{Initial Price}}\right) \times 100$$

Percentage increase in wheat production $= \left(\frac{107 - 90}{90}\right) \times 100 = \left(\frac{17}{90}\right) \times 100 = 18.89\%$

Percentage increase in rice production $= \left(\frac{120 - 105}{105}\right) \times 100 = \left(\frac{15}{105}\right) = 14.29\%$

Thus it can be conclude that the production of wheat increased by 18.89% and to paddy increased by 14.29%.

BPSC

Q7. **(b) What was the average annual growth rate of wheat production between 2017 and 2019?**

8

Solution:-- Average Annual Growth Rate

$$= \frac{\text{Final Production} - \text{Initial Production}}{\text{Number of Years}}$$

- **Wheat Production in 2017:** 98 million ton

- **Wheat Production in 2019:** 104 million ton

average annual growth $= \dfrac{104 - 98}{2019 - 2017} = \dfrac{6}{2} = 3$ million ton per year

In summary, the average annual growth rate was 3 million tonnes per year.

BPSC

Q7. **(c) Which was the year when the difference between the production of wheat and rice was the highest? Calculate this difference.** **8**

Solution:-

Difference in production of wheat and rice in each year:

Year	Wheat (MT)	Paddy (MT)	Difference (rice - wheat)
2015	90	105	15
2016	92	108	16
2017	98	112	14
2018	102	114	12
2019	104	118	14
2020	107	120	13

The highest difference was 16 million tonnes in 2016.

Answer : The difference was 16 million tonnes in 2016

Q7. **(d) If the production of wheat and rice increased by 4% and 3% respectively in 2021, then what would be their production?** **6**

Solution:- **General Formula :**

$$\text{New Production} = \text{Current Production} \times \left(1 + \frac{\%\,\text{Growth}}{100}\right)$$

$$\text{New Production} = 107 \times \left(1 + \frac{4}{100}\right)$$

$$= 107 \times 1.04 = 111.28 = 111 \text{ million ton (approx)}$$

Rice Production (2021): New Production $= 120 \times \left(1 + \frac{3}{100}\right)$

$$= 120 \times 1.03 = 123.6 \approx 124 \text{ million ton}$$

Answer : In 2021, wheat production will be 111 million tonnes and rice production will be 124 million tonnes.

Q7. **(e) What conclusion can be drawn regarding India's food security based on the above data?** **6**

Ans:-

- **Consistent Production Growth:** Both wheat and rice production increased between 2015 and 2020, consequently strengthening India's food security.

- **Stable Average Annual Growth:** On an average, wheat production increased by 3 million tonnes and rice production by 2-3 million tonnes every year.

- **Growth in 2021:** If this trend continues, production is likely to increase further in 2021.

- **Challenges:** Climate change, uncertainty in monsoon and changes in agricultural policies can lead to fluctuations in production.

- **Conclusion :** India's food security is moving in a positive direction, but climate change and policy reforms are essential.

BPSC

Q7. **(a) Calculate the compound annual growth rate (CAGR) of the profits of both the companies between 2015 and 2020.** **8**

Solution-

Compound Annual Growth Rate (CAGR):

$$= \left(\frac{\text{Last Price}}{\text{Initial Price}} \right)^{\frac{1}{n}} - 1$$

Where, 'n' is the number of years.

For ABC Ltd:

- Initial Profit (2015): Rs. 50 crore

- Last Profit (2020): Rs. 65 crore

- Duration : 5 years

  $= \text{CAGR} = \left(\frac{65}{50} \right)^{\frac{1}{5}} - 1$

  $= \text{CAGR} = (1.3)^{0.2} - 1$

  $= \text{CAGR} = 0.0535 \text{ or } 5.35\%$

For XYZ Pvt. Ltd:

- Initial Profit (2015): Rs. 48 crore
- Last Profit (2020): Rs. 63 crore
- Duration : 5 years

  $= \text{CAGR} \left(\frac{63}{48} \right)^{\frac{1}{5}} - 1$

  $= \text{CAGR} = (1.3125)^{0.2} - 1$

  $= \text{CAGR} = 0.0556 \text{ or } 5.56\%$

For ABC Ltd: CAGR = 0.0535 or 5.35%

For XYZ Pvt. Ltd: CAGR = 0.0556 or 5.56%

Q7. **(b) In which year was the difference in the profits of the two Companies maximum?**

6

Solution:-

The difference in profits of both the companies is as follows:

- **2015:** Rs. 50 crore - Rs. 48 crore = Rs. 2 crore

- **2016:** Rs. 55 crore - Rs. 52 crore = Rs. 3 crore

- **2017:** Rs. 60 crore - Rs. 55 crore = Rs. 5 crore

- **2018:** Rs. 58 crore - Rs. 57 crore = Rs. 1 crore

- **2019:** Rs. 62 crore - Rs. 60 crore = Rs. 2 crore

- **2020:** Rs. 65 crore - Rs. 63 crore = Rs. 2 crore

Therefore, tha maximum difference was Rs 5 crore in 2017

Q7. **(c) If both the companies want to achieve a profit of Rs. 80 crores by 2025, calculate the annual growth rate required for each company from 2020.** **8**

Solution:- **Required Annual Growth Rate:**

$$= \left(\frac{\text{Target Value}}{\text{Present Value}} \right)^{\frac{1}{n}} - 1$$

Where, 'n' is the number of years.

For ABC Ltd:

- Present Profit (2020): Rs. 65 crore

- Target Profit (2025): Rs. 80 crore

- Duration : 5 years

   = Required Growth Rate = $\left(\frac{80}{65} \right)^{\frac{1}{5}} - 1$

   = Required Growth Rate = $(1.2308)^{0.2} - 1$

   = Required Growth Rate = 0.0419 or 4.19%

For XYZ Pvt. Ltd:

- Present Profit (2020): Rs. 63 crore

- Target Profit (2025): Rs. 80 crore

- Duration : 5 years
   = Required Growth Rate = $\left(\frac{80}{63} \right)^{\frac{1}{5}} - 1$

   = Required Growth Rate = $(1.2698)^{0.2} - 1$

   = Required Growth Rate = 0.0488 or 4.88%

Hence, we can conclude that for **ABC Ltd** required growth rate needed is 4.19% and for **XYZ Pvt. Ltd** required growth rate need is 4.88%.

Q7. **(d) Analyse the profit trends of both the companies and discuss any obvious patterns or anomalies.** **6**

Ans:-

- **ABC Pvt. Ltd:** Profits saw a steady increase from 2015 to 2017, but there was a slight decline in 2018. After this, there was an increase again in 2019 and 2020.

- **XYZ Pvt. Ltd:** Profits have shown a consistent growth, without any decline.

This shows that XYZ Pvt. Ltd's profits are more stable and growing consistently, while ABC Ltd faced a slight decline in 2018.

Q7. **(e), Assuming that the operating expenses of ABC Ltd and XYZ Private Ltd in 2020 were Rs. 40 crores and Rs. 42 crores respectively, calculate the profit margin of both the companies in that year.** **8**

Solution:- Profit margin (%) = $\left(\dfrac{\text{Profit}}{\text{Selling Price}}\right) \times 100$

ABC Ltd:

Profit = Selling Price – Operating Expenses

= Rs. 65 Crore – Rs. 40 Crore = Rs. 25 Crore

= Profit Margin (%) = $\left(\dfrac{\text{Rs. 25 Crore}}{\text{Rs. 65 Crore}}\right) \times 100$ = 38.46%

XYZ Pvt Ltd :

Profit = Selling Price – Operating Expense

= Rs. 63 Crore – Rs. 42 Crore — Rs. 21 Crore

= Profit Margin (%) = $\left(\dfrac{\text{Rs. 21 Crore}}{\text{Rs. 63 Crore}}\right) \times 100$ = 33.33%

Thus, the profit margin of ABC Limited in 2020 is around 38.46%, while the profit margin of XYZ Private Limited is around 33.33%.

BPSC

Q8. **(a) What was the increase in the production of wheat in the year 2022 and 2024?** **(7)**

Solution:- **Production of Wheat in 2022:**

$$= \frac{32}{100} \times 550 = 176 \text{ million ton}$$

Production of Wheat in 2024:

$$= \frac{36}{100} \times 650 = 234 \text{ million ton}$$

Growth : 234 – 176 = 58 million ton

Therefore, the wheat production increased by 58 million tons.

BPSC

Q8. **(b) How many million tonnes did the production of maize increase in 2024 as compared to 2022?** **7**

Solution:- **Production of maize in 2022:**

$$\frac{18}{100} \times 550 = 99 \text{ million ton}$$

Production of maize in 2024:

$$\frac{20}{100} \times 650 = 130 \text{ million ton}$$

Growth : 130 - 99 = 31 million ton

Thus, the maize production increased by 31 million tons.

Q8. **(c) What was the production of agricultural products falling under the 'other' category in the year 2024?** 7

Solution:- **Production of other products in 2024:**

$$\frac{14}{100} \times 650 = 91 \text{ million ton}$$

Therefore, 'other' category had a production of 91 million tons.

Q8. **(d) Was there any change in the production of pulses in the year 2022 and 2024? Explain.** **7**

Solution:- **Production of Pulses in 2022 :**

$$= \frac{12}{100} \times 550 = 66 \text{ million ton}$$

Production of Pulses in 2024:

$$= \frac{10}{100} \times 650 = 65 \text{ million ton}$$

Change : 66 - 65 = 1 Million Ton

In summary, it can be conclude that the production of pulses decreased by 1 million ton.

BPSC

Q8. **(e) Comparing the production of rice in the year 2022 and 2024, tell how much percentage increase or decrease was there in it?** **8**

Solution:- **Production of Rice in 2022 :**

$= \dfrac{22}{100} \times 550 = 121$ million ton

Production of Rice in 2024 :

$= \dfrac{20}{100} \times 650 = 130$ million ton

Formula for % Change:

$$\% \text{ Growth } = \left(\dfrac{130 - 121}{121}\right) \times 100$$

Calculation for rice :

$= \left(\dfrac{9}{121}\right) \times 100 = 7.44\%$

Hence, the production of rice increased by 7.44%.

BPSC

Q8. **(a) Which company's production increased the most between 2019 and 2024?**   **7**

Solution: -

General formula for calculating the increment:

Growth = Final Production – Initial Production

- Growth of Maruti = 22 – 15 = 7 lakh unit

- Growth of Hyundai = 14 – 10 = 4 lakh unit

- Growth of Tata = 15– 8 = 7 lakh unit

In summary, the Maruti and Tata's production increased the most *i.e.,* by 7 lakh units.

BPSC

Q8. **(b) What is the percentage increase in Hyundai's production in 2024 as compared to 2022?** **7**

Solution:-

$$\% \text{ Growth} = \left(\frac{\text{Last Price} - \text{Intial Price}}{\text{Initial Price}} \right) \times 100$$

Growth of Hyundai

$$\% \text{ Growth} = \left(\frac{14-12}{12} \right) \times 100 = \left(\frac{2}{12} \right) \times 100 = 16.67\%$$

Therefore, Hyundai's production increased by 16.67%.

Q8. **(c) How many lakh units did Tata's total production increase between 2019 and 2024?**

7

Solution: -

Growth: 15 – 8 = 7 lakh units

Tata's production increased by 7 lakh units.

BPSC

Q8. **(d) If Maruti's production increases by 10% in 2025, what will be its new production?**

8

Solution:- General formula for finding new output:

New Production = Current Production $\times \left(1 + \dfrac{\% \text{ Growth}}{100}\right)$

For Maruti,

New Production = $22 \times \left(1 + \dfrac{10}{100}\right)$

$= 22 \times 1.10 = 24.2$ lakh unit

Therefore, the Maruti's estimated production in 2025 will be 24.2 lakh units.

Q8. **(e) Which company's production remained the most stable between 2019, 2022 and 2024?** **7**

Solution:- Stability means that there should not be much fluctuation in production.

- Maruti: (15 → 18 → 22) [Difference: (+ 3, + 4)]

- Hyundai: (10 → 12 → 14) [Difference: (+ 2,+ 2)]

- Tata: (8 → 11 → 15) [Difference: (+ 3, + 4)]

Thus, from the above it can be concluded that the Hyundai's production showed consistent growth (+2, +2), so it is considered the most stable company.