



## DAILY MAINS QUESTION & ANSWER





This PDF compiles sample question and model answers for UPSC / APSC Mains

Date of publication – 25<sup>Th</sup> December 2023

We have a lot more to offer. Stay connected with us for free quizzes, notes, newspaper analysis, discussions etc.

Telegram: <a href="https://t.me/gradientUPSCAPSC">https://t.me/gradientUPSCAPSC</a>

Whatsapp: https://chat.whatsapp.com/DEMKA2G9cpb2gfD5Wr0LhE

Instagram: https://www.instagram.com/gradientias

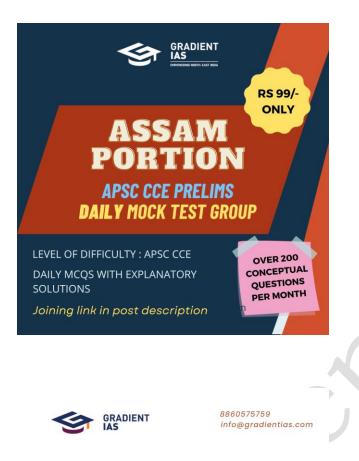
Facebook: https://www.facebook.com/gradientias

Website: www.gradientias.com



Gradient IAS | H/No - 1A, 2nd Floor Zoo Road Tiniali, Hridoy Ranjan Path, Next to Central Bank (Opposite Decora Tent House) Guwahati – 781024 , 8860575759 / info@gradientias.com





#### ASSAM MOCK TEST FOR APSC CCE

Daily Online quiz with explanations

Join here - https://rpy.club/g/909WJIrfUR

#### ADRE 2.0 MOCK TESTS

600+ questions per month Daily quiz with answer explanations

Join now at an unbelievable offer of **Rs 29 oniv** 



Joining link at the post description

#### ADRE 2.0 MOCK TEST

Daily Online quiz with explanations

Join here - https://bit.ly/48E99WH



Gradient IAS | H/No - 1A, 2nd Floor Zoo Road Tiniali, Hridoy Ranjan Path, Next to Central Bank (Opposite Decora Tent House) Guwahati – 781024, 8860575759 / info@gradientias.com



Q1. What are the main obstacles to tackling poverty and related concerns using digital solutions? Illustrate.

GS I

#### **Poverty related issues**

#### • Introduction:

As SDG 1 aims to end poverty in all of its forms worldwide, reducing poverty has become a global priority.

#### • Body:

• **Digital divide:** There is still a significant disparity between those who utilise and those who do not use e-government, even in the age of science and technology. services. In truth, the bulk of the population in India lives below the poverty line and is not provided for by the government. services. In contrast, a certain percentage of people use government e-services extensively. The benefits of e-governance would only be equally utilised, however, if this gap could be closed.

• Use of the local tongue: Information must be accessible in the language that the general public finds most comfortable, which is typically the native tongue. Transliteration from English into other languages is already possible because to technology like GIST and language software.

• Information: The accuracy of information released digitally is debatable given how frequently rules, regulations, and standards change.

• Communication: Lack of interpersonal interaction between stakeholders and governmental entities might leave many of them dissatisfied and ignored.

• Internet infrastructure is a prerequisite for Internet literacy and is needed to link computers and users to the Internet. Without this infrastructure, e-governance is a remote service. This infrastructure consists of actual gear, transmission media, and software.

• Gender gap: Women continue to lag behind. Men are 90% more likely than women to own a mobile phone. Even among women who own smartphones, none have internet connectivity.





• Burden on the poor: Digital "solutions" introduce more red tape for all sick people seeking these treatments without punishing the offenders. Patients will also have to navigate digital work in addition to traditional tasks. Platform- and app-based solutions have the potential to completely exclude the poor or further restrict their access to scarce healthcare resources.

#### • Conclusion:

• Therefore, if these issues are thoroughly addressed, it would not only contribute to the success of e-governance but also ensure improvement in governance outcomes with a view to bettering the provision of public services to citizens. Less corruption, more transparency, greater convenience, income growth, and cost savings are the outcomes.

# Q2. What are the main findings from the current urbanisation trend in India? What potential difficulties might they bring about in the future? Analyse. GS I

#### **Urbanization related issues**

#### • Introduction:

• Urbanisation is the process of more people moving into urban areas. Urbanisation, which results in an increase in the population of cities and the size of urban areas, is mostly caused by people moving from rural to urban areas.

#### • Body:

5

#### Urbanisation trends:

• India's percentage of the population living in urban areas rose from 17.6% in 1951 to barely 23.7% in 1981 and 27.8% in 2001.

• India is among the bottom thirty countries on the list of nations classified according to their levels of urbanisation, which is consistent with its low per capita GDP.

• According to the 2011 Census of India, there were 1210 million people living in India, with a 31.1% urbanisation rate.

• Ten States—Maharashtra, Uttar Pradesh, Tamil Nadu, West Bengal, Andhra Pradesh, Gujarat, Karnataka, Madhya Pradesh, Rajasthan, and Kerala—comprise more than 75% of the nation's urban population.





#### Potential difficulties:

• Excessive Population Pressure: While the rural-urban migration quickens the pace of urbanisation, it also places an excessive amount of population pressure on the public services already in place.

• Approximately 13.7 million slum dwellings in the nation are home to 65.49 million people, which results in overcrowded slums.

• Inadequate Housing: Of all the social issues caused by urbanisation, the housing issue is the most upsetting.

Weak Regulations by Umbrella authority: States have not operationalized the umbrella authority to regulate transportation and other concerns, even though they effectively retain control over urban development over local administrations.
Mass transit costs are high: It is true that the current paradigm of "exclusionary urbanisation" renders Metro and bus services unaffordable for the majority of people.

• Lack of protection against hazards and disasters in the areas of environmental safety

• Lack of protection against hazards and disasters in the areas of environmental safety, pollution, racial conflicts, violence, and exploitation.

• Financial devolution: From their already extremely low levels, practically all of the key financial empowerment metrics for urban local governments in India are showing signs of deterioration.

• Problems Caused by Pandemics: The Covid-19 pandemic has made life even worse for slum and urban poor inhabitants. Slum dwellers' capacity to make a living was greatly hampered by the abrupt adoption of total Covid lockdown.

Q3. With the passing of the Minimum Guaranteed Income Bill, Rajasthan just became the first State in the nation to provide social security guarantees to the populace. Analyse the need for India to implement the Universal Basic Income (UBI) idea in this setting.

#### GS II



Gradient IAS | H/No - 1A, 2nd Floor Zoo Road Tiniali, Hridoy Ranjan Path, Next to Central Bank (Opposite Decora Tent House) Guwahati – 781024 , 8860575759 / <u>info@gradientias.com</u>



#### **Government Policies and Interventions**

#### • Introduction:

7

• Increased equality among citizens and the prevention or reduction of poverty are the goals of the universal basic income (UBI) paradigm. Three things make up UBI: universality, unconditionality, and agency. The concept of universal basic income (UBI) has also been promoted as a replacement for various welfare programmes in India in the economic reform movement.

#### • A case for the introduction of Universal Basic Income (UBI) in India:

• Spending autonomy: Under the UBI, the recipients will be treated as agents and given freedom to spend the money however they see fit for their advantage. People will be able to manage their money better and become happier as a result of this.

• Zero exclusion error: Since everyone will be a beneficiary, there won't be any exclusion error, meaning that no underprivileged citizen will be denied this welfare and left out of receiving such benefits. This would prevent the current situation where poor communities are unable to access government aid programmes and ensure that the basic income grant's trickle-down effect is realised.

• Prevent leaks in existing programmes: There are currently over 1000 national and state government programmes, the majority of which are corrupt; the degree of leakages in existing programmes is outrageously high; these programmes are implemented poorly; UBI can replace this abundance of programmes, eliminating the depravity it brings.

• Alleviation of Poverty: UBI will assist in removing poverty and the vulnerability of persons who are economically and socially disadvantaged. It is a guaranteed income that serves as a safety net to survive in dire circumstances and upholds financial and economic stability.

• Increased use of bank accounts will increase financial inclusion and the income of banking correspondents (BC), while the use of the JAM (Jan-Dhan, Aadhaar, and Mobile)

• infrastructure as an addition to the UBI programme can result in increased efficiency and transparency.



Gradient IAS | H/No - 1A, 2nd Floor Zoo Road Tiniali, Hridoy Ranjan Path, Next to Central Bank (Opposite Decora Tent House) Guwahati – 781024 , 8860575759 / <u>info@gradientias.com</u>



• Safety net for workers: Due to rising income inequality, today's labour market is becoming more precarious for people in low-paying, low-skilled jobs. UBI intervenes to defend those workers' interests. UBI will often serve as a safety net against financial, health, and other shocks.

### • Universal Basic Income (UBI) implementation is opposed in India for the following reasons:

• The primary issue with universal basic income is its financial ramifications. The UBI programme will require significant amounts of revenue to be raised, which will be a significant burden on taxpayers.

• Market distortions: Since people will be discouraged from working if they receive a regular, easy income, there is serious concern that UBI will result in market distortions. Because workers will be able to leave their jobs without having an impact on their household's income, this cash transfer will lead to a reduction in the labour supply.

• Basic income is extremely susceptible to inflationary pressures, whereas food subsidies are not affected by changes in market pricing. It comes with an unavoidable risk to purchasing power, which will have an impact on poorer households' real income.

• The primary objective of the strategy will be defeated due to the significant financial strain this will place on the exchequer. Misuse risk: There is also concern that the political class may use the strategy to their advantage in order to win elections. It is possible that the ruling party will raise the basic income under UBI.

• Before implementing this paradigm change, the policymakers must weigh the advantages and disadvantages of universal basic income using precise measurements and statistics. Public opinion is crucial because public support and acceptance are necessary for a policy of this nature to succeed.

#### Q4. Despite being judged important for efficient water management, riverinterlinking projects are not without difficulties. Comment.

GS II

#### **Government Policies and Interventions**

8

 Officially, the idea of a national water grid was first proposed in the 1980 National Perspective Plan; furthermore, the Union government established the National Water Development Agency (NWDA) in 1982 as a registered society under the M/o Water (now M/o Jal Shakti), with grant-in-aid providing its entire



funding. Dr. KL Rao first envisioned a national water grid as a means of addressing the water security of the world's nations in 1970.

#### • The National Water Grid plan consists of three parts:

• In the Himalayan component, extra water would be distributed to Gujarat, Rajasthan, and Haryana, which are all prone to drought.

• Diversion of excess Mahanadi and Godavari water to Krishna, Pennar, Cauvery, and Vaigai in the Peninsular component.

#### • In 2005, the intra-state component was included:

#### • Benefits of Connecting Rivers:

• Enhancing Irrigation: It can guarantee irrigation for 35 million hectares of land and permit full utilisation of current irrigation projects.

• Producing 34,000 MW of power while also providing additional advantages.

• Drought and flood control: While affluent countries deliberately stockpile 900 days' worth of water demand in arid areas' river basins and reservoirs, India only stores 30 days' worth of rainfall. For instance, the Ganga and Brahmaputra basins experience floods every year.

• Waterways in the interior: These systems require little flows. This would be ensured by check-dams built by interlinking.

• Securing the availability of drinking water and water for industrial use in dry areas in urban settings.

- New fishing terrain would grow.
- Lowering regional inequality and promoting national integration.
- Disadvantages:

9

• Economic disadvantage: Significant financial outlays are needed. close to?5.6LCr were calculated using 2002 as the base year.





• Social Effects: There would be a significant population shift, which would primarily affect tribal regions.

• Biodiversity loss: Just peninsular rivers might cause a forest covering 50,000 square km to flood. Additionally, aquatic ecosystems may migrate as a result, which would make invasive species an issue.

- Impact of reduced freshwater flows on the coastal ecology:
- Due to water logging, excessive irrigation on inappropriate soil can raise soil salinity;
- Spreading of diseases and hazardous substances from already polluted rivers.
- Dam development in the Himalayan and Peninsular regions has seismic repercussions.
- River water conflicts between states.

• International disputes over transboundary rivers: India is an upper riparian nation. For instance, Bangladesh has expressed concern about the Tipaimukh Dam on the Barak River.

• An international legal framework is necessary for the projects between Bangladesh, Nepal, and Bhutan in order to address the international conflicts in this regard. In this regard, the

• Justice Shah Committee's proposals to treat surface and subsurface resources equally well become necessary. The intertwining of rivers presents a wide range of difficulties, which require planning at the river-system level and a thorough environmental impact assessment.

Q5. What steps may be done to ensure that increased capital spending in the budget contributes to long-term, sustainable, and inclusive economic growth while avoiding undesirable repercussions such as inflation or fiscal imbalance? Analyse.

#### GS III



Gradient IAS | H/No - 1A, 2nd Floor Zoo Road Tiniali, Hridoy Ranjan Path, Next to Central Bank (Opposite Decora Tent House) Guwahati – 781024 , 8860575759 / <u>info@gradientias.com</u>



#### **Indian Economy**

• Long-term sustainable and equitable economic growth requires budgetary measures such as investing in green infrastructure projects, clean energy, capital expenditure on education, and sustainable agriculture.

### • The following budgetary strategies may be implemented to increase capital investment for long-term development and economic growth:

• Government spending on infrastructure initiatives that encourage economic growth, such as transportation, electricity, and water systems, should be increased.

• Encouraging private investment in projects that contribute to sustainable development through tax breaks or other subsidies.

• Putting measures in place to encourage the use of clean energy and reduce carbon emissions.

• Investing in education and training programmes that improve human capital and productivity.

• Encouraging innovative technology research and development to enable long-term growth.

- Reducing wasteful spending and prioritising investments with long-term advantages.
- Investing in renewable energy entails allocating funding towards the development of clean and sustainable energy sources such as solar, wind, and hydroelectricity.
- Promoting energy efficiency by offering incentives for the use of energy-efficient technologies in homes and companies, as well as investing in public transit networks.

• Supporting green infrastructure entails allocating funds for the construction of longterm infrastructure such as green buildings, parks, and bike lanes.

• Investing in sustainable farming practises and giving incentives for the use of organic farming techniques are two ways to promote sustainable agriculture.

 Implementing a carbon tax: A carbon tax can motivate enterprises to minimise their carbon footprint and promote the adoption of sustainable practises.





• Investing in education and research: Research and development of new sustainable technologies, as well as public education about the importance of sustainability, can assist generate long-term sustainable growth.

### • The following actions may be done to avert inflation and fiscal imbalance while pursuing sustainable development and economic growth:

• Implementing incremental changes: Implementing policies and investments gradually over time might help avoid unexpected economic shocks and lower the danger of inflation.

• Prioritising efficiency: Investing in sustainable technologies and practises that improve efficiency can result in cost savings and help lessen the risk of inflation.

• Putting an emphasis on public-private partnerships: Collaboration with the private sector may assist share the costs and risks of sustainable development projects, decreasing the strain on the government budget.

• Fiscal discipline: Keeping a balanced budget and minimising government debt can assist maintain economic stability and lower the danger of inflation.

• Conducting a detailed cost-benefit analysis prior to implementing any policies or investments can assist ensure that the benefits of the policy outweigh the costs and limit the danger of fiscal imbalance.

• How to minimise inflation and fiscal imbalances while pursuing sustainable development and economic growth

• Implementing development initiatives gradually and carefully to avoid abrupt surges in demand for products and services, which can contribute to inflationary pressures.

• Implementing effective monetary policy measures to limit inflationary pressures, such as hiking interest rates.

• To maintain a balanced budget and minimise fiscal imbalance, efficient fiscal policy measures such as lowering wasteful government spending and boosting tax collection must be implemented.

• Promoting international commerce and investment in order to expand the supply of goods and services, which can aid in the reduction of inflationary pressures.





• Encouraging private sector investment in sustainable development projects, which can lessen the load on government budgets and avert fiscal imbalance.

#### • Conclusion:

• A cautious approach, a focus on efficiency and collaboration, and a commitment to fiscal discipline are required to achieve long-term Eco growth without negative consequences. Ensuring that sustainable development projects are implemented in a way that does not negatively impact the environment or the social fabric of communities, which can lead to long-term economic stability and growth.

Q6. What are the implications for national security and geopolitical stability of expanding Chinese monitoring operations using spy balloons? What steps can India take to address such threats in the future? Discuss.

#### GS III

#### **Internal Security**

• According to reports, China has been conducting surveillance operations using highaltitude spy balloons. These balloons are outfitted with cameras and other sensors that can take images and collect data from a broad range of locations, including military bases and other sensitive areas.

• The ramifications for national security and geopolitical stability of growing Chinese surveillance operations using spy balloons are enormous. Some possible consequences include:

• National security risk: China's deployment of spy balloons for monitoring activities raises concerns about potential national security risks. China might utilise this technology to acquire intelligence on military installations, crucial infrastructure, and other sensitive locations, jeopardising national security.

• Tensions with neighbouring countries: The use of spy balloons for surveillance may raise tensions with neighbouring countries, especially if China uses them to monitor activity in disputed areas or near other countries' borders. This might heighten geopolitical tensions and instability.

• Concerns concerning privacy and human rights: The use of spy balloons for





monitoring creates privacy and human rights concerns. These balloons' data could be used to follow the movements of individuals and groups, potentially resulting in abuses of privacy and civil freedoms.

• Impact on global norms: China's increased use of surveillance technology, particularly spy balloons, may have a broader impact on worldwide privacy and surveillance rules. If other governments follow China's lead and begin adopting similar technology, a race to the bottom could ensue, with countries increasingly dependent on surveillance technologies to keep control over their citizens.

### • India could take the following steps to counter Chinese spying operations using spy balloons:

• Strengthening Air Defence: By boosting the number of radar and detection systems along its borders, India might improve its air defence capabilities. This will allow India to detect and track Chinese spy balloons in its skies.

• Counter-surveillance capabilities: India might develop its own counter-surveillance capabilities, such as deploying drones or balloons fitted with sensors to detect and track Chinese spy balloons.

• Diplomatic Efforts: India might work with other countries to raise awareness about the possible threat posed by Chinese monitoring operations using spy balloons. This might contribute to the formation of a global coalition against China's use of such technology.

• Increasing Cyber Security skills: To resist Chinese cyber espionage and cyber attacks, India might focus on improving its cyber security skills. This might include actions like increasing encryption standards and protecting crucial infrastructure.

#### Conclusion:

• Finally, China's increased use of spy balloons for surveillance operations has serious ramifications for national security and geopolitical stability. The international community must address these concerns and ensure that the use of such technology is governed by suitable legislative frameworks that protect fundamental human rights and civil liberties.

14

# Q7. Discuss the moral and ethical concerns that the increasing usage of artificial intelligence (AI) technology has brought forth. What steps must be taken to address these problems?

Gradient IAS | H/No - 1A, 2nd Floor Zoo Road Tiniali, Hridoy Ranjan Path, Next to Central Bank (Opposite Decora Tent House) Guwahati – 781024 , 8860575759 / <u>info@gradientias.com</u>



Paper & Topic: GS III

**Science and Technology** 

- Model Answer:
- Introduction:

• A collection of various technologies collectively known as artificial intelligence must function in harmony for computers to feel, grasp, act, and learn with intelligence levels comparable to that of humans. Artificial intelligence (AI) is developing quickly, which has created a lot of opportunities, such as bettering healthcare diagnosis, facilitating human relationships through social media, boosting intelligent decision-making, resolving complex problems, and lowering labour costs by automating jobs.

### • However, these swift changes brought on by the widespread use of Al technology also raise significant moral and ethical issues, such as:

• Artificial intelligence is capable of processing information far more quickly and effectively than humans, yet it can't always be trusted to be fair and unbiased due to inherent biases. Bias is inherent when utilising AI systems for assessments since their functionality and design reflect the values of their inventor.

• Discrimination: Biases in AI systems may result in prejudice against particular individuals or groups. Discriminatory analytics can damage a group's autonomy and participation in society by fostering stigmatisation and self-fulfilling prophecies.

• Inequality: The potential for artificial intelligence to exacerbate the divide between wealthy and developing nations by boosting investment in affluent economies where automation is already well-established.

• The application of artificial intelligence in biometrics and facial recognition introduces risks related to surveillance and data privacy. These systems are also not usually correct. For instance, a U.S.-developed AI system was unable to identify African Americans' faces with the same level of accuracy as it did Americans of other races.

• Openness and accountability: As artificial technologies are employed more frequently, questions about openness and accountability increasingly surface.

• To solve the aforementioned issues, the following steps can be taken:





• The creation of an ethical code of behaviour is the first step towards developing ethical AI. This code should define the values and guiding principles of the AI system. During the development of the code, involved parties including staff members, clients, and industry experts should be consulted.

• Do no damage and proportionality: Only use AI systems as necessary to achieve legitimate goals, and no more. Risk assessment should be utilised to prevent any harm that could result from such usage.

• Right to privacy and data protection: Privacy must be maintained and safeguarded throughout the AI lifecycle. Additionally, frameworks for proper data protection should be put in place.

• It is crucial to maintain diversity and inclusivity in the data used to train the AI system to avoid prejudices being perpetuated. Gender, colour, ethnicity, and other factors should all be included in the AI data.

• Awareness & Literacy: To increase the public's understanding of AI and data, a variety of strategies should be implemented, including open and accessible education, civic engagement, the development of digital skills, and training in AI ethics.

• Collaboration between various parties and adaptive governance: National sovereignty and international law must be respected when using data. Additionally, for inclusive approaches to AI governance, a wide range of stakeholders must be involved.

• We may acknowledge that AI systems may have unexpected consequences that are damaging to individuals or communities if we view them from the standpoint of human rights. As a result, human rights must be considered when developing and deploying AI systems.

• Artificial intelligence is currently the field where the ethical compass is most crucial. These technologies are altering the way we work, live, and interact. Given how frequently AI is used, it is imperative that we comprehend the moral underpinnings of each AI system that we use or that is used against us. An ethical foundation based on both teleological and deontological perspectives will lead to more confidence in AI systems.





Gradient IAS | H/No - 1A, 2nd Floor Zoo Road Tiniali, Hridoy Ranjan Path, Next to Central Bank (Opposite Decora Tent House) Guwahati – 781024, 8860575759 / info@gradientias.com