

प्रश्न संख्या  
Question No.

# U.P.S.C.

इस भाग में कुछ न लिखें  
(Don't write anything  
in this margin)

Name: Abhishek Shukla

Registration Number: 36221

Test Number: 1415

GS Mains Test Series 2020 — 15 Nov 2020

प्रश्न संख्या  
Question No.

**U.P.S.C.**

इस भाग में क  
(Don't write  
in this m

①

Food subsidy through PDS amounts to more than ~~15%~~ 0.5% of India's GDP. As such, DBT has been proposed.

Advantages of DBT instead of food supply are:

- ↳ Better targeting of beneficiaries
- ↳ Rationalization of food subsidy
- ↳ Reduced corruption due to technology
- ↳ Enhanced transparency and accountability.
- ↳ Food wastage in FCI godowns can be prevented
- ↳ Distorted agricultural practices (of growing only wheat and paddy) can be rectified

Disadvantages of DBT are:

- ↳ Lack of digital infrastructure to verify beneficiaries adequately
- ↳ Might lead to inclusion and exclusion errors
- ↳ Can lead to agrarian distress as farmers depend on government procurement for PDS.
- ↳ Money can be misused by men for alcohol and other sin activities
- ↳ Lack of capacity of private sector to supply foodgrains to remote areas
- ↳ PDS has helped remove hunger to a large extent.

DBT should be rolled in only after public consultations.

(2)

Participatory budgeting refers to the process where citizens actively participate in formulation of budget and ancillary activities.

Challenges associated with participatory budgeting in India are:

- ↳ Lack of technical and financial know-how of government budgeting among citizens
- ↳ lack of political will
- ↳ Bureaucratic apathy
- ↳ Opacity and secrecy associated with several budget line items, especially those relating to national security.
- ↳ Difficult to conduct this exercise in such a large country as India with 1.38 billion people.
- ↳ Lack of funds to undertake this exercise
- ↳ lack of awareness among public as they don't make this demand; in some cases, even public apathy.
- ↳ Lack of institutional or legal framework

Participatory budgeting can help usher in a new era of grassroots democracy.

③

Inclusive growth refers to all sections of society becoming active agents in growth and development process. It does not depend on "trickle-down" economics.

However, Universal Basic Income (UBI) requires high taxes from the rich and redistribution of this wealth among all.

Thus, at first glance, it seems that inclusive growth negates the need for UBI. This is because:

↳ When all sections, even backward sections, participate in and reap the benefits of growth, UBI may become unnecessary.

↳ When all sections prosper, burden of taxation for UBI would fall on all sections. This would partially offset the benefit from UBI, and therefore negate its need.

↳ When all sections prosper, UBI may become irrelevant as the "basic" income provided under UBI may only be a small portion of income under inclusive growth.

However, UBI can help reinforce inclusive growth because:

↳ It will increase risk-taking appetite and entrepreneurship among lower sections, thus helping their growth.

↳ UBI can help provide social security and insurance against mishaps.

↳ UBI can help in wealth redistribution  
and thus help the process of inclusive growth

UBI has been backed by Economic Survey  
and should be given serious consideration.

(4)

E-commerce can help revamp agricultural marketing because:

↳ Monopoly of middlemen and traders will decrease

↳ Farmers will be able to get remunerative prices

↳ Farmers can sell their produce to anyone (not restricted to their mandi)

Ex: e-NAM (electronic - National Agricultural Market)

↳ It can boost agricultural exports

↳ Private sector can come in with more funds, skilled manpower, technical expertise ~~can~~ and digital infrastructure

↳ Resilient farm-to-fork supply chains can be established.

↳ Currently, agriculture is a buyer's market, with agricultural traders setting the prices. With e-commerce, it can become seller's market, with farmers setting prices

↳ It can promote Food Processing Industries

↳ It can help improve distorted agricultural practices of growing only wheat and paddy.

- ↳ Even livestock can be traded (Eg: Animall.com)
- ↳ It can promote investments in agri-logistics and storage solutions.
- ↳ It can reduce agricultural distress.

e-commerce should be brought in agricultural marketing with adequate safeguards for farmers.

5

How digital financial services can expand financial inclusion in India:

- ↳ High tele-density in India of more than 90% means that digital financial services can be accessed universally.
- ↳ Brick-and-mortar branches not needed
- ↳ Digital services are cheaper for banks to provide than physical services
- ↳ Even remote, inaccessible locations can be served.

However, challenges in providing digital financial services are:

- ↳ Lack of funds
- ↳ Lack of skilled IT manpower in remote locations
- ↳ Lack of digital infrastructure, especially in remote underbanked areas
- ↳ Digital illiteracy
- ↳ Cyber crimes ~~and~~ like phishing, hacking, etc. create fear among public
- ↳ NPA problems in banks prevents them from investing in digital services.
- ↳ Poor internet connectivity in remote areas
- ↳

JAM trinity is a laudable step in this regard.

⑥

The two laws that were used to deal with COVID-19 pandemic are:

- ↳ Epidemic Diseases Act, 1897
- ↳ Disaster Management Act, 2005

How India's domestic laws are ill-equipped to deal with infectious diseases:

- ↳ Epidemic Diseases Act is a colonial era law that focuses on giving wide-ranging powers to government rather than addressing infectious disease
- ↳ Disaster Management Act has no mention of infectious diseases - It only has limited provisions relating to Biological Disaster.
- ↳ Epidemics and Pandemics do not find mention in any list of Seventh Schedule, which creates confusion
- ↳ Disaster Management Act gives sweeping powers to Union government, which results in:
  - ↳ Non-consultation with States
  - ↳ one-size-fits-all approach by Centre
  - ↳ lack of customisation according to local factors.
- ↳ Current legal framework does not address the following:
  - ↳ Quarantining the infected

# U.P.S.C.

- ↳ Isolating virus/bacteria strain
- ↳ Protocol for lab tests and safety
- ↳ Hierarchy or institutional framework  
for identification of pathogen, vaccine  
development or other activities in an  
emergency.

The current legal framework needs to be suitably amended in line with international best practices and India's own experience.

7

Why private sector participation is needed in space sector in India:

- ↳ To bring in more funds
- ↳ To bring in more skilled manpower
- ↳ To find novel uses for space technology  
(ex: using NAVIC for local grocery delivery)
- ↳ To democratise space infrastructure
- ↳ To commercialise space technology
- ↳ To use space technology for welfare of public
- ↳ Private sector has worked well in foreign countries; ex: SpaceX in USA
- ↳ To effect technology transfer from ISRO to private sector
- ↳ To manufacture Small ~~Sat~~ Satellite Launch Vehicle (SSLV)
- ↳ To create high value-addition skilled jobs
- ↳ To transform India into knowledge economy
- ↳ Specific uses for private sector:
  - ↳ Communication, broadcasting, etc.
  - ↳ Navigation
  - ↳ Earth-observation (ex: mineral exploration)

Steps taken by government in this regard are:

- ↳ Creation of New Space India Limited (NSIL)
- ↳ NSIL to partner with private sector
- ↳ Small Space Launch Vehicle (SSLV) to be manufactured by NSIL and private sector
- ↳ New Department to regulate private sector in Space sector
- ↳ Space technology to be transferred to private sector by ISRO.

8

When a significant portion (more than 30-40%) of the population has been infected and has recovered from an infectious disease, herd immunity is said to have developed as pathogen cannot easily find an uninfected host and the disease becomes less prevalent.

Relying on herd immunity to stop infectious diseases has following problems:

- ↳ leads to widespread deaths (30-40% of population has to get infected and a significant number will have to die before herd immunity kicks in)
- ↳ Overloads medical infrastructure as all patients cannot be treated simultaneously
- ↳ Increases mortality rate of infection as all patients not provided medical attention
- ↳ Basically a do-nothing and non-proactive approach which has no place in modern society
- ↳ Violative of fundamental Right to life
- ↳ Often, the poor and marginalized sections are most vulnerable in this approach

- ↳ Can lead to huge economic disruption due to high case load
- ↳ Re-infections and loss of immunity after sometime can render this approach unusable.

Active government intervention is necessary to stop infectious diseases.

9

Comprehensive Convention of International Terrorism (CCIT) is an India-backed Convention that was presented to UN in 1996.

It is pending ever since.

Reasons for this impasse are:

- ↳ USA is worried that atrocities committed by it ~~are~~ in Middle East can be categorized as terrorism
- ↳ West Asian Countries like Saudi Arabia and Iran are worried that their actions in Yemen, Iraq and other places can be categorized as terrorism.
- ↳ Pakistan is worried as it is a state sponsor of terrorism.
- ↳ No global agreement on definition of terrorism

Implications of this impasse are:

- ↳ Creation and proliferation of terror groups like ISIS, Al-Qaeda, Haggarani Network, etc.
- ↳ Concerted global action not possible against terrorism

↳ Terror bombings in France, Belgium,  
Sri Lanka, etc., can be attributed to  
this impasse

↳ Countries like Pakistan keep sponsoring  
terror groups due to lack of global  
action.

CCIT needs to be deliberated upon and  
accepted as soon as possible.

(10)

Complexity of border challenges include border patrolling, combating interventions by foreign nations, development of border areas, smuggling and terror activities, etc.

Why reform is needed in BSF:

- ↳ To improve coordination between various border forces, intelligence agencies and army.
- ↳ To incorporate technology on Indo-Pak border and Indo-Bangladesh border.
- ↳ To improve morale of BSF personnel
- ↳ To incorporate ~~idea~~ idea of "One Border, One Force".
- ↳ BSF personnel ~~are~~ have poor work conditions which need to improve
- ↳ ~~BSF Commander~~ DG, BSF should be from within BSF instead of an IPS officer.
- ↳ Skilled manpower needs to be inducted into BSF for induction of technology
- ↳ More fund allocation for BSF.
- ↳ Acquisition of arms, ammunitions and protective gear in ample quantities

↳ Border infrastructure needs to be developed, including border roads and CIBMS (Comprehensive <sup>Integrated</sup> Border Management System) to further strengthen BSF.

BSF should be reformed to tackle border issues.

(11)

India's ambivalence on privatization can be seen from the following:

↳ Since 1991, several sectors have been deregulated and opened up for private sector.

However, significant presence of public sector still remains, especially in financial ~~set~~ sector, civil ~~area~~ aviation, railways, highways (roadways), etc.

↳ Divestment targets for PSUs have been announced several times.

However, divestment targets are often not met. Many a times, government holding is sold to LIC, which is not actually privatization.

Also, several new PSUs keep coming up.

Why India has been reluctant to go for full-fledged privatization:

↳ Can lead to loss of jobs in PSUs

↳ lack of political will

↳ Can lead to regional disparities as private sector will often be situated in regions with good infrastructure.

# U.P.S.C.

- ↳ Unwillingness to cede market control in some areas like petroleum marketing, etc.
- ↳ Changes of crony capitalism
- ↳ Distrust of private sector
- ↳ Safeguarding national interests, especially in areas like defence manufacturing
- ↳ International experience, as in poor performance of British railways after privatisation.
- ↳ National security concerns prevents atomic energy from being privatized.
- ↳ Infrastructural requirements prevents NHAI and AAI, along with others, from being privatized.
- ↳ Lack of market development prevents DISCOMs from being privatized.

Why India still considers privatization necessary:

- ↳ Government has no business of being in business is the accepted policy stance
- ↳ Maxim of minimum government, maximum governance
- ↳ Private sector brings in efficiency, funds, skilled manpower, technology transfer, etc.

- ↳ Privatization can increase employment and economic growth
- ↳ Wastage of tax money on loss-making and inefficient PSUs can be avoided.

Recent government policy of privatizing all except a few sectors is a laudable step.

(12)

Potential of MSEs in food processing sector are as follows:

- ↳ This sector is labour-intensive
- ↳ This sector requires less capital investment to get started
- ↳ This sector enjoys government support in the form of capital subsidy, interest subvention, credit guarantee, etc.
- ↳ Skills required for this sector are already abundant in Indian labour.

However, challenges faced by MSEs in food processing sector are as follows:

- ↳ lack of access to credit
- ↳ lack of access to capital and technology
- ↳ lack of skilled manpower for ~~the~~ management
- ↳ lack of marketing promotion and assistance
- ↳ lack of access to quality produce
- ↳ Poor agri-logistics and storage
- ↳ Essential Commodities Act acts as a deterrent for bulk procurement of raw materials
- ↳ lack of awareness of government schemes

- ↳ Poor implementation of government policies like Mega food Parks scheme with hub-and-spokes model
- ↳ Poor knowledge about food processing and value-addition
- ↳ Poor backward and forward linkages

Importance of scheme for formalisation of Micro food Processing Enterprises:

- ↳ It will help in access to credit
- ↳ Access to technology and skilled manpower
- ↳ Access to infrastructure and common-use facilities
- ↳ Marketing promotion, development and assistance
- ↳ Can provide employment for those in agriculture sector
- ↳ Can grant them exemption from hoarding limits under Essential Commodities Act

Food Processing sector is an important sector to ensure agricultural growth.

13

World Bank has said that India faces a situation of water stress, which can soon turn to water scarcity.

Significance of micro-irrigation:

- ↳ Good alternative to flooding of farms, especially in water scarce regions
- ↳ Increases absorption by plants
- ↳ Reduces wastage through evaporation and leakage and runoff.
- ↳ Can reduce water pollution
- ↳ Supports the maxim of Per drop, more crop
- ↳ Can reduce groundwater exploitation
- ↳ Can reduce monsoon risk
- ↳ Can lead to sustainable agriculture.

However, challenges with regards to its adoption are:

- ↳ ~~the~~ High initial investment
- ↳ Agrarian distress and poor small & marginal farmers reduce investment ability.
- ↳ ~~the~~ lack of awareness among farmers
- ↳ lack of technology in India
- ↳ May not be suitable for crops like paddy where flooding of field is required.
- ↳ Can lead to growth of weeds
- ↳ lack of skilled manpower to properly implement micro-irrigation.

प्रश्न संख्या  
Question No.

# U.P.S.C.

इस भाग में कुछ न लिखें  
(Don't write anything  
in this margin)

↳ Poor implementation of government schemes like PM Kisan Sinchayee Yojana which has micro-irrigation component

(14)

Significance of energy technology innovation is as follows:

- ↳ Can improve energy efficiency  
Ex: CFL and LED lamps consume less energy
- ↳ Can increase use of renewable energy, especially solar and wind
- ↳ Can clean up conventional sources, like coal washing, coal gasification, etc.
- ↳ Can increase output of mines and oil fields  
Ex: injecting CO<sub>2</sub> in oil fields
- ↳ Can provide energy in remote areas  
Ex: off-grid solar in hilly regions
- ↳ Can make energy affordable  
Ex: Solar tariffs at record low rates
- ↳ Can lower Greenhouse Gas emissions and help combat climate change  
Ex: Natural Gas usage
- ↳ Can solve problem of intermittency of solar and wind through battery solutions
- ↳ Can lead to increase in use of bio-fuel, which can be Carbon Capture, Utilization & Storage (CCUS)

↳ Can help meet SDGs by providing accessible, affordable and clean energy to all.

Steps taken by government in this regard are:

- ↳ Perform, Achieve and Trade (PAT) scheme to increase energy efficiency
- ↳ Star-rating of appliances by Bureau of Energy Efficiency (BEE) for better conservation
- ↳ Setting up of BEE under Ministry of Power
- ↳ NITI Aayog involved in energy technologies like Batteries, Methanol, Natural Gas, etc.
- ↳ Use of biofuel being promoted through PM-JIUAN scheme
- ↳ National Solar Mission
- ↳ National Mission for Energy Efficiency
- ↳ National Wind Mission
- ↳ National Wind-Solar Hybrid Policy
- ↳ Ocean Energy, Geothermal Energy, Tidal Energy being tapped and targeted

Energy technology innovation should be an important part of energy policy.

(15)

Atmanirbhar Bharat refers to self-reliant India. It is the policy propounded in the wake of COVID-19 pandemic.

However, Atmanirbhar Bharat goes beyond traditional view of self-reliance.

<u>Traditional view of self-reliance</u>	<u>Atmanirbhar Bharat</u>
↳ <u>All production done within India</u>	↳ India becomes part of <u>global value chains (GVCs)</u>
↳ <u>Import-substitution</u>	↳ <u>Free and liberalized trade policy</u>
↳ <u>Isolationism</u> from the world	↳ <u>Fully integrated</u> into global economy
↳ <u>Protectionism</u> for domestic industry from global competition	↳ <u>Healthy competition</u> between domestic and foreign companies
↳ Elements of <u>command economy</u>	↳ Principles of <u>free market</u> followed
↳ <u>Global capital flow</u> restricted	↳ <u>FDI encouraged</u> ; <u>technology transfer</u> promoted.

↳ Movement of Labour  
restricted

↳ Controls on domestic  
companies to produce  
desired goods

↳ Freedom of Labour  
movement

↳ Minimum government,  
maximum governance  
with as little regulation  
~~as~~ and restriction as  
possible

Atmanirbhar Bharat ties well with India's  
policy of Make in India, Skill India, etc.

As such, it should be promoted.

(16)

Increased frequency and intensity of climate extremes (like floods, droughts, heat waves, etc.) can have following implications:

- ↳ Destruction of property due to floods, cyclones, etc.
- ↳ Loss of human lives if preparedness is poor
- ↳ Food security impacted due to floods and droughts
- ↳ Poor and vulnerable most impacted because of lack of social security and insurance
- ↳ Can affect groundwater levels and surface drainage (rivers)
- ↳ loss of biodiversity, especially critically endangered species
- ↳ Increase in poverty
- ↳ Negative economic growth and losses in development
- ↳ Social tensions for <sup>meagre</sup> resources, which can even lead to international conflicts, especially over trans-boundary rivers

Some measures that can be taken for climate-resilience are:

↳ Agriculture

↳ less water guzzling crops

↳ Micro-irrigation

↳ Hardy, drought-resistant crop varieties

↳ Industry

↳ less water-intensive manufacturing

↳ Circular economy

↳ Resource efficiency

↳ International Collaboration

↳ Contribution for Paris Climate Agreement

↳ Sustainable Development Goals

↳ Raising awareness of public

↳ Mitigation and adaption measures need to be implemented

(17)

Currently, flood control in India is done in piece-meal manners:

- ↳ Drainage infrastructure maintained at district level and at the level of local bodies
- ↳ Lack of coordination between adjacent regions
- ↳ Unplanned development and urbanization
- ↳ Ad-hoc flood control measures and reactive approach (measures after flood has occurred)

Why integrated basin management is needed:

- ↳ Basin is the natural unit of water management. Districts and local bodies are artificial units.
- ↳ Basin Management is the scientifically - correct approach.
- ↳ What happens in one part of the basin often affects other parts of basin.
- ↳ Isolated interventions will be rendered ineffective if basin management is lacking.

How integrated basin management can be carried out:

- ↳ Creating water sponges and water sinks like ponds, lakes, etc.

- ↳ Even the idea of sponge cities (sub-urban areas that can absorb flood water) has been proposed.
- ↳ Early Warning System and sensors need to be installed all along the basin.
- ↳ Afforestation all along the basin
- ↳ Diversion channels to take water from one part of the basin and transfer it safely to another part
- ↳ Dredging to remove silt and deepen channel all across the basin
- ↳ Flood Zoning and Land Use Restrictions to mitigate damage from floods.
- ↳ Flood water can be used for groundwater recharge
- ↳ Preventing flood plain encroachment to reduce risk.

All these measures can reduce damage from floods.

(18)

In the wake of COVID-19 pandemic, Convalescent Plasma Therapy evolved wherein plasma from an infected, cured and immune individual is extracted and injected into other patients to induce immunity.

Potential uses of convalescent plasma therapy are:

- ↳ Can provide instant immunity from infectious disease.
- ↳ less expensive than other options
- ↳ Has yielded positive results in some COVID cases

Concerns in its application are:

- ↳ Not scientifically proven
- ↳ Can lead to plasma rejection
- ↳ Can lead to severe viral and other infections
- ↳ Positive results may be due to other factors and not necessarily plasma
- ↳ Adverse side-effects seen in some cases
- ↳ Banned by nearly all major global regulatory bodies.

Unscientific treatment should not be provided.

(19)

Diverse security challenges that India faces are:

- ↳ Border security from other nations like China and Pakistan
- ↳ Cross-border terrorism
- ↳ Human trafficking
- ↳ Drugs trafficking, Arms trafficking
- ↳ fake currency smuggling across borders
- ↳ Organized crime
- ↳ Naxal rebellion
- ↳ Insurgency in North-East and Kashmir

External linkages of these security challenges are:

- ↳ 'Golden Triangle' which includes Myanmar in the east and 'Golden Crescent' which includes Pakistan, Afghanistan in the west for drug trafficking.
- ↳ Support to insurgents from China and Pakistan
- ↳ Terrorists sponsored by Pakistan
- ↳ fake currency injected mainly by Pakistan

# U.P.S.C.

Internal linkages are:

- ↳ Naxalites linked with tribals
- ↳ Organized crime nexus with politicians
- ↳ Human trafficking to provide cheap labour  
for industries and homes

Given these challenges, National Security Strategy requires a comprehensive strategy, such as:

- ↳ Combating the risks from international actors  
like China and Pakistan
- ↳ Breaking nexus between political parties and  
criminals, and then bringing criminals to justice.
- ↳ Naxalites need to be either co-opted in  
development process or neutralised through  
security action
- ↳ Drug trafficking needs to be tackled along  
with drug addiction and rehabilitation.
- ↳ North-East and Kashmir insurgency requires  
regional development along with insulation from  
foreign actors.
- ↳ Human trafficking should be checked through  
border security and should be accompanied  
by rehabilitation of victims.

Only a comprehensive National Security Strategy can address diverse challenges.

20

Critical information Infrastructure refers to most important parts of information infrastructure whose malfunction can bring down the entire economy.

Examples include power grid, telecom infrastructure, banking, etc.

Significance of critical information protection are as follows:

- ↳ Cyber warfare being focused on by countries like China to cripple economies
- ↳ Non-state actors, terrorists, hackers, etc., can damage critical infrastructure
- ↳ It ensures robustness and resilience of important sectors like banking, telecom, power, etc.
- ↳ Such protection is important for ensuring investor confidence and ease of doing business
- ↳ Can prevent huge losses, both economically and politically
- ↳ International examples, like STUXNET used by USA to cripple Iran's nuclear facilities

# U.P.S.C.

Measures taken to ensure critical information protection are:

- ↳ Setting up of National Critical Information Infrastructure Protection Cell (NCIIPC)
- ↳ CERT-In (Computer Emergency Response Team) and sectoral CERTs for banking and other areas
- ↳ National Cyber Centre Coordination Centre (NCCC) to provide cyber intelligence
- ↳ Indian Cyber Crime Coordination Centre (I4C) to catch hackers and other such agents
- ↳ National Technical Research Organization (NTRO) under National Security Adviser
- ↳ National Cyber Security Policy, 2013
- ↳ New division of Cyber Division within Armed Forces.
- ↳ Training of cyber security experts
- ↳ Sensitization of senior officials to follow cyber protocols in their departments

Critical Information Infrastructure needs to be protected from nefarious actors.