



VISION IAS

www.visionias.in

VISION IAS
R
N
02 SEP 2018
NO
03
RECEIVED

GENERAL STUDIES (TEST CODE : 1066)

Name of Candidate	Sambhav Jain	Registration Number	402880
Medium Eng./Hindi	English	Date	23/9/18
Center	Karnal Bgh		

INDEX TABLE

Q. No.	Maximum Marks	Marks Obtained
1	10	
2	10	
3	10	
4	10	
5	10	
6	10	
7	10	
8	10	
9	10	
10	10	
11	15	
12	15	
13	15	
14	15	
15	15	
16	15	
17	15	
18	15	
19	15	
20	15	

Total Marks Obtained:

Remarks:

INSTRUCTIONS

- Do furnish the appropriate details in the answer sheet (viz. Name, Registration Number and Test Code).
उत्तर पुस्तिका में सूचनाएं भरना आवश्यक है (नाम, प्रश्न-पत्र कोड, विद्यार्थी क्रमांक आदि)।
- There are **TWENTY** questions printed in **ENGLISH & HINDI** इसमें बीस प्रश्न हैं अंग्रेजी और हिन्दी में छपे हैं।
- All questions are compulsory.**
सभी प्रश्न अनिवार्य हैं।
- The number of marks carried by a question/part is indicated against it.
प्रत्येक प्रश्न/भाग के अंक उसके सामने दिए गए हैं।
- Answers must be written in the medium authorized in the Admission Certificate, which must be stated clearly on the cover of this Question-Cum-Answer (QCA) Booklet in the space provided. No marks will be given for answers written in medium other than the authorized one.
प्रश्नों के उत्तर उसी माध्यम में लिखे जाने चाहिए जिसका उल्लेख आपके प्रवेश पत्र में किया गया है और उस माध्यम का स्पष्ट उल्लेख प्रश्न-सह-उत्तर (क्यूसीए) पुस्तिका के मुख्य पृष्ठ पर अंकित निर्दिष्ट स्थान पर किया जाना चाहिए। उल्लिखित माध्यम के अतिरिक्त अन्य किसी माध्यम में लिए गए उत्तर पर कोई अंक नहीं मिलेंगे।
- Word limit in questions, if specified, should be adhered to.
प्रश्नों में शब्द सीमा, जहाँ विनिर्दिष्ट है, का अनुसरण किया जाना चाहिए।
- Any page or portion of the page left blank in the Question-Cum-Answer Booklet must be clearly struck off.
उत्तर पुस्तिका में खाली छोड़ा हुआ पृष्ठ या उसके अंश को स्पष्ट रूप से काटा जाना चाहिए।

16-B, 2nd Floor, Above National Trust Building, Bada Bazar Marg, Old Rajinder Nagar, Delhi-110060

M-1/4, Plot No-A-12/13, 1st Floor, Ansal Building, Dr. Vidya Sagar Homeopathic Clinic, Mukherjee Nagar, Delhi-110009

EVALUATION INDICATORS

1. Context Competence
2. Content Competence
3. Language Competence
4. Introduction Competence
5. Structure - Presentation Competence
6. Conclusion Competence

Overall Macro Comments / feedback / suggestions on Answer Booklet:

1.

2.

3.

4.

5.

6.

All the Best

1. The cave architecture in India not only enlighten us with information of tradition and customs of ancient times but also illustrate considerable accomplishment with regard to structural engineering and artistry. Discuss.

(150 WORDS) 10

भारत में गुहा स्थापत्य न केवल हमें प्राचीनकालीन परंपराओं और रीति-रिवाजों की जानकारी प्रदान करता है, अपितु यह संरचनात्मक अभियांत्रिकी एवं कलाकृतियों के संबंध में महत्वपूर्ण उपलब्धियों का दृश्य उदाहरण भी प्रस्तुत करता है। चर्चा कीजिए।

India has a long history in cave architecture and engineering since prehistoric times. The architecture natured in ancient India with unique and significant structural engineering and artistry.

Structural engineering -

- caves of Ellora druzes monolithic structures such as ravana shank mount Kailash, other caves with double storied architecture
- rock cut caves in Karla caves, chulkyon caves highlighted proficiency in handling large rocks
- caves are still present in most of the sites

lighting structural efficiency and
firmness

Artistry -

- Painting in cave walls - mural
e.g. - lepakshi caves
- krishna paintings in Ajanta caves
also highlight artistic features in caves
- depression symbolised in rovana
shaking mount Kailash cave also gives
insight into proficiency in handling with
3 dimensional object and wall carving

Thus, cave as a ~~prehistoric~~ prehistoric

evidence recorder reveals engineering
and artistic features used in cave
architecture.

2. While the Battle of Plassey laid the foundation of British Empire in India, it was the Battle of Buxar that proved to be the turning point of British fortunes in India. Discuss. (150 WORDS) 10

यद्यपि प्लासी के युद्ध ने भारत में ब्रिटिश साम्राज्य की नींव रखी, तथापि यह बक्सर का युद्ध था जो भारत में अंग्रेजों की सफलता के लिए निर्णायक सिद्ध हुआ। चर्चा कीजिए।

British empire was built on the foundation of Bengal's riches which was secured by britishers in Plassey (1757) and Buxar (1764)

Battle of Buxar as turning point-

- Treaty of Allahabad - with mughals raised the ~~new~~ status of britishers from traders to contenders

- Diwani rights of ~~the~~ Bengal, Bihar and odisha let them extract huge revenues which helped in further wars and annexations.

- Dual government - it mean no responsibility but full administrative control of Bengal territory and trade

- Coastal location, rich industrial base, weavers and artisans in Bengal made them exploit the natives.

- System of investment -

Indian money was used to buy Indian goods which was called a 'investment' - it stopped bullion from Europe.

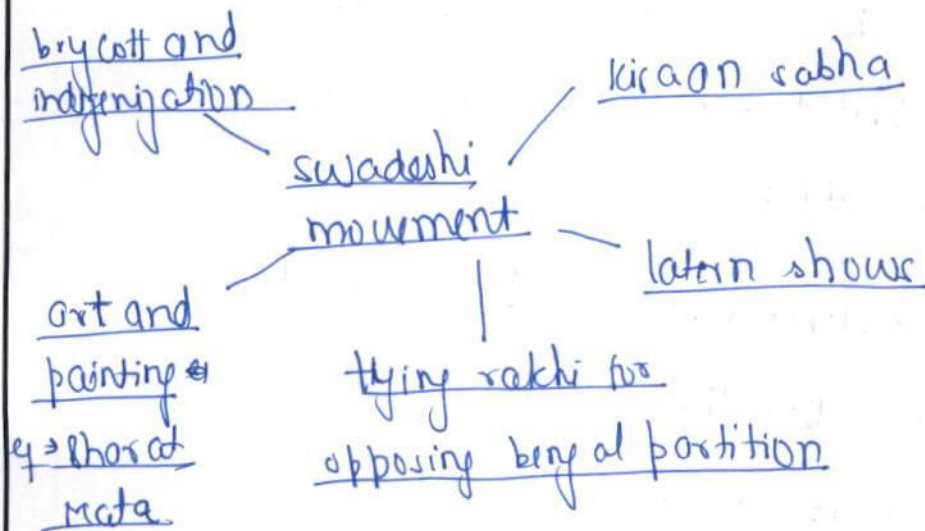
Thus, while classey made the start, Ruxar established the foundation of British empire which ruled over India for nearly 200 years.

3. Among many novel methods and themes, the Swadeshi Movement laid great emphasis not only on boycott but also on self-reliance. Discuss.

(150 WORDS) 10

अनेक अनूठे तरीकों और विषय-वस्तु के साथ-साथ, स्वदेशी आंदोलन ने न केवल बहिष्कार, अपितु आत्मनिर्भरता पर भी अत्यधिक बल दिया। चर्चा कीजिए।

Swadeshi movement was a great turning point in Indian freedom movement wherein nationalistic fervor reached to the masses and villages. Novel methods and themes used-



Self reliance-

- many Indian companies were started such as steam navigation company by

v. chidambaram Pillai, textile companies

- National Education -

It was one of the four resolutions
passed in Congress session in 1906

- Swadeshi -

Congress demanded swadeshi and
self reliance - i.e. atma shakti

- dispute resolution -

many dispute settlement mechanism
were started by Indians in form of
kisan sabha

Thus, swadeshi movement turned the
face of nationalism towards masses
which was only supported by
advent of Mahatma Gandhi which made
it a people's movement.

4. The idea of linguistic states predated independence, however it took some time even after independence for this idea to be implemented. Discuss.

(150 WORDS) 10

यद्यपि भाषाई राज्यों का विचार स्वतंत्रता-प्राप्ति से पहले का था, तथापि स्वतंत्रता-प्राप्ति के पश्चात् भी इस विचार को कार्यान्वित करने में कुछ समय लगा। चर्चा कीजिए।

India is a multilingual country ~~which~~
with more than 20 scheduled languages,
400 recognised languages. linguistic
affiliation was supported by congress in
Nagpur session, 1920 but actual
~~re~~ reorganisation happened in 1956.

linguistic states -

- The demands of linguistic states were discussed in constituent assembly but due to administrative convenience and traumatic partition, leaders did not favoured organisation on language principle

- several committees such as Adhar Commission, JVP Committee of congress rejected the demand
- In 1953, popular protest and death of leader C. N. Annam in Madras demanding Telugu speaking state initiated violent riots.
- The demand was considered by Fazl Ali Commission which favoured administrative convenience and linguistic reorganisation as dual principle
- By State Reorganisation Act, 1956, the states were reorganised to form 14 states.

The linguistic reorganisation has strengthened the federalism in the country by increasing people participation in administration and politics.

5. Dr. B. R. Ambedkar understood that persistent inequalities pose fundamental challenges to the economic and social well-being of the nation and people. In this context, discuss the key contributions of Dr. Ambedkar in the history of modern India. **(150 WORDS) 10**

डॉ. बी. आर. अम्बेडकर का मानना था कि दीर्घस्थायी असमानताएं राष्ट्र और लोगों के आर्थिक एवं सामाजिक कल्याण के समक्ष बुनियादी चुनौतियां प्रस्तुत करती हैं। इस संदर्भ में, आधुनिक भारत के इतिहास में डॉ. अम्बेडकर के प्रमुख योगदानों की चर्चा कीजिए।

BR Ambedkar was a statesman who drafted the 'Indian constitution' having ideals like Justice, equality, liberty, fraternity and democratic socialism to address the need of strengthening social fabric in nation.

Key contributions of BR Ambedkar in modern India in this aspect are-

- Political mobilisation-

He mainstreamed the idea of dalits in Indian politics by raising the issue and demanding affirmative actions for equality and empowerment & in simon commission, Round Table Conference,

political organisations like All India
scheduled class federation, Bhambhani
hitkarni sabha

- Social agitation-

He did not shy away from using
agitative mechanism

e- Malhar uprising, Boring manuscript
Using forbidden public places and wells

He actively took the case of depressed
classes and 'demanded' equal
~~rights~~ for upliftment. The provisions
in constitution such as Article 14-17,
A.46 highlight his desire for a
society and economy based on principles
of equality and justice.

6. It has been pointed out that in recent times, while the proportional share of nuclear households has dipped in urban areas it has risen in rural areas. Analyse the reasons behind this trend. **(150 WORDS) 10**

यह इंगित किया गया है कि हाल के समय में, जहां शहरी क्षेत्रों में एकल परिवारों की आनुपातिक हिस्सेदारी में कमी आई है, वहीं ग्रामीण क्षेत्रों में यह बढ़ी है। इस प्रवृत्ति के पीछे उत्तरदायी कारणों का विश्लेषण कीजिए।

India society has been a collective unit based on idea of "sharing and caring". However, recent changes in society has increased nuclearization of families in rural areas compared to urban area -

Reasons -

• Economic reasons -

Rural economy is based on subsistence with small landholdings it results in meagre income and thus needs small family size while urban societies with rising income can support parents, children and siblings.

- migration -

rural push and urban pull and resulted

in migration of people from rural areas to their kiths and kins in urban areas.

Urban areas needs-

Since both partners are working, households need elder generations to take care of children.

Such is not in rural areas

Thus, the transition is due to ~~many~~ interplay of many factors. It has also given rise to notion of extended joint family wherein households despite living separately practices cultural and festival together.

7. Separation, and not divorce, is the dominant form of marriage dissolution for most women in India. What could be the possible reasons behind this? Also, discuss why there are striking differences in divorce rates between the different regions in India. **(150 WORDS) 10**

असाहचर्य, न कि तलाक, भारत में अधिकांश महिलाओं के लिए विवाह विच्छेद का एक प्रमुख रूप है। इसके पीछे संभावित कारण क्या हो सकते हैं? साथ ही, चर्चा कीजिए कि भारत में विभिन्न क्षेत्रों के बीच तलाक की दर में सुस्पष्ट अंतर क्यों हैं।

In the contemporary period, the idea of marriage as ~~divine~~ divine marriage has reduced and increased separation between partners have started, especially in urban areas.

Reason for separation but not divorce as marriage dissolution -

- divorce is a legal process and involves many hardships and burdens. women prefer separating than facing these legal troubles

- cooling off period -

Though it is in legal provisions also but partner themselves give a cooling off period to contemplate the future of

their marriage

- family support -

Women are getting support from family who are willing to take care of her.

Such material and emotional need does not require alimony

- Judicial delays, Societal stigma,
costly process and low legal

awareness also result in such situation.

Marriage dissolution can be seen as positive also wherein women have become assertive and do not bear violence and torture but rate differ in regions because-

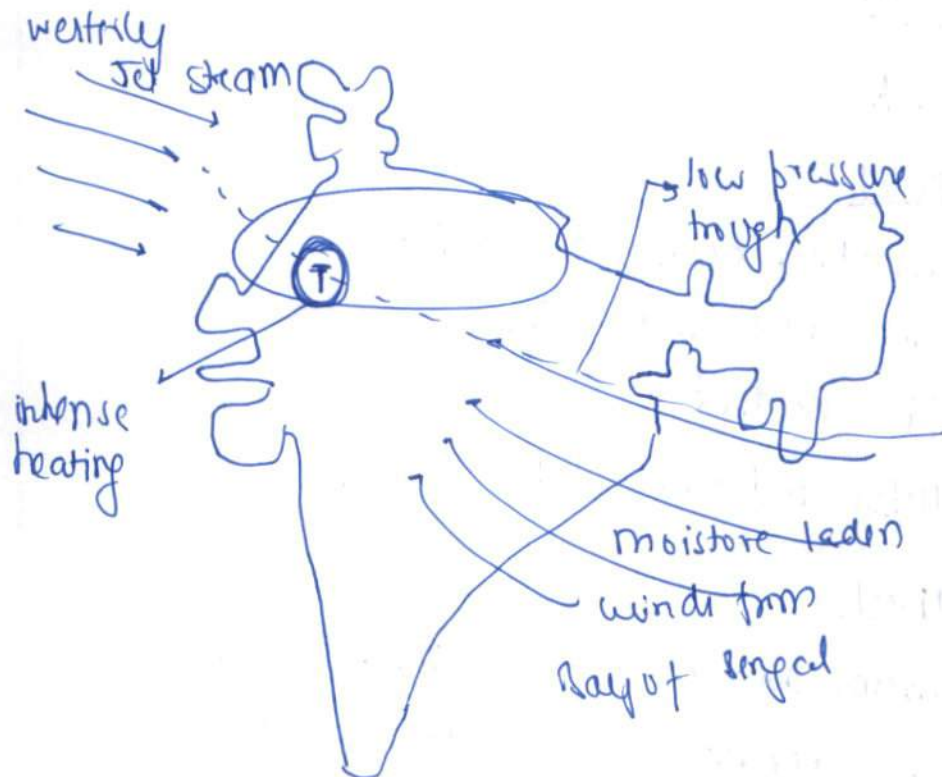
- awareness and empowerment
- literacy levels among women
- metropolitan society witness high divorce
- urban areas have more easy access to NGOs, judges and support mechanism

8. Giving an account of their impact, mention the reasons for increased frequency of dust storms as observed in the last few years. (150 WORDS) 10.

धूल भरी आंधियों के प्रभाव का विवरण प्रस्तुत करते हुए, पिछले कुछ वर्षों में अवलोकित धूल भरी आंधियों की वर्धित आवृत्ति के कारणों का उल्लेख कीजिए।

North and northwest part have witnessed increased dust storm activity in summer months.

Reasons



- intense heating in Rajasthan in summer creates convection current and low pressure centre

- delayed mediterranean water-lies due to climate change
- moisture laden winds from east side
- desertification create loose and friable soil which travel farther.
- reduced green belts increase the intensity of winds

Impacts

→ Direct -

- It hampers economic activity
- It risk lives and livelihoods
- traffic accident
- pollution and particulate matter

→ Indirect -

- It harms the normal business cycle
- higher congestion on roads lead to high GHG emission
- poverty and health burden

9. Elaborate on the factors responsible for the evolution of the current drainage system in Indian sub-continent, with special emphasis on the characteristic features of Himalayan and Peninsular rivers. **(150 WORDS) 10**

हिमालयी और प्रायद्वीपीय नदियों की अभिलाक्षणिक विशेषताओं पर विशेष बल देते हुए, भारतीय उपमहाद्वीप में वर्तमान अपवाह प्रणाली के विकास के लिए उत्तरदायी कारकों का सविस्तार वर्णन कीजिए।

India has more than 20 major rivers and several perennial drainage system.



Factor

- Topography -

Earlier Indus and Brahmaputra river system were single river drainage system. upliftment of Himalayas bifurcated the two drainage system.

Peninsular rivers flows in moderated
block mountains which gives it a
definite path

- climate -

ice in himalayan system makes it
perennial as it receives water from
melting of ice and monsoon.

while peninsular system is rain fed
and temporary.

10. Enumerate the features of Plantation Agriculture and the problems faced by them. Given the fact that area under cultivation of palm oil has been increasing, discuss the benefits and challenges associated with it.

(150 WORDS) 10

बागानी कृषि की विशेषताओं और इसके समझ आने वाली समस्याओं को सूचीबद्ध कीजिए। इस तथ्य को देखते हुए कि पाम ऑयल की खेती के अंतर्गत क्षेत्र में वृद्धि हो रही है, इससे संबद्ध लाभों और चुनौतियों की चर्चा कीजिए।

plantation agriculture refers to large scale cultivation of commercial crops using modern technologies. The nature of such agriculture is based on industrial principles and is produced for selling.

features -

- large scale cultivation - large area, huge manpower, huge capital

Commercial crops - nature of crop is cash crops e.g. cotton, palm oil, cashew etc

- Exports - it produces for export markets and caters to demand from foreign countries

- Techniques - it uses modern techniques fertilizers and pesticides

Challenges -

- capital needs - need loans from bank.
Bank are facing NPA problem
- work force - it needs semiskilled and
skilled work force
- climate change - it has changed economics
of agriculture
- trade wars - it poses risk on export
market

Palm oil area is increasing due to government
policies such as palm oil production

Benefits

- reduced import and
increasing export
potential
- farmer income
- food security due to
increased palm oil

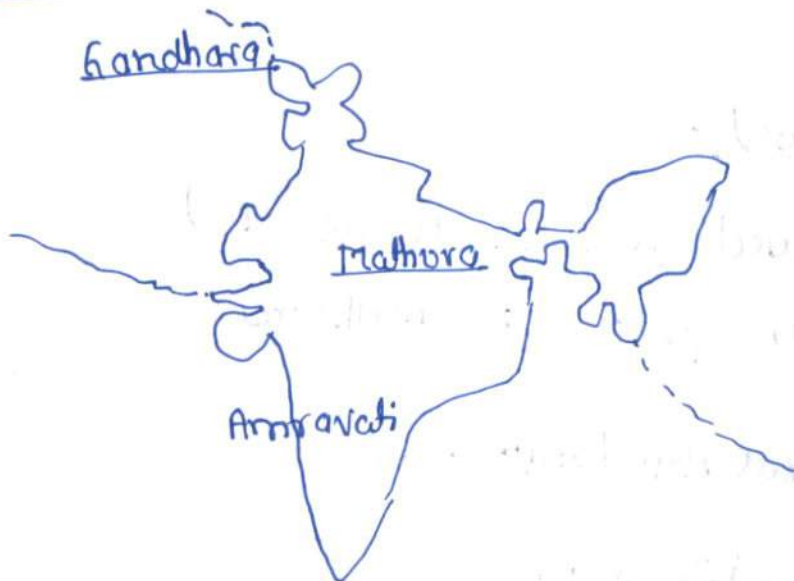
Challenges

- supply glut can
crash the market
due to low demand
- no MSP can risk
farmer security
- scarce land poses
threat on other
crops (food grains,
cereals, paddy, sugarcane)

11. Bring out the distinctive features of Gandhara, Mathura and Amravati schools of art that flourished towards the first century CE. **(250 WORDS) 15**

प्रथम शताब्दी ईस्वी के आसपास विकसित होने वाली गांधार, मथुरा और अमरावती कला शैलियों की सुस्पष्ट विशेषताओं को प्रस्तुत कीजिए।

Under patronage of different dynasties
and cultures, 2 prominent school of
architecture flourished in Indian subcontinent -
Gandhar, Mathura and Amravati. uniqueness
of each has created distinctive
sculptural portraits.



School of Architecture < 1 CE onwards

The distinctive features can be
highlighted as

- Religion patronised -

Gandhara - Buddhism was dominant
theme

Mathura - Buddhism, Hinduism (Brahmanism),

Jainism - eclectic kind of architecture

Amravati - Buddhism and secular

art theme

- Material used -

Gandhara - used grey sandstone and
had bulky features in sculptures

Mathura - Red sandstone

Amravati - white marble

- Sculpture built -

Gandhara - it was bulky art piece with
open eyes highlighting buddhism in
connection with real world

Mathura - it was muscular and well
built art piece with eyes half closed and
symbolising meditation

Amravati - it was slender bodied

- Foreign influence -

Gandhara - it had dominant Greek influence
and called Greco Roman art

Mathura - it was indigenous

Amravati - it was also indigenous

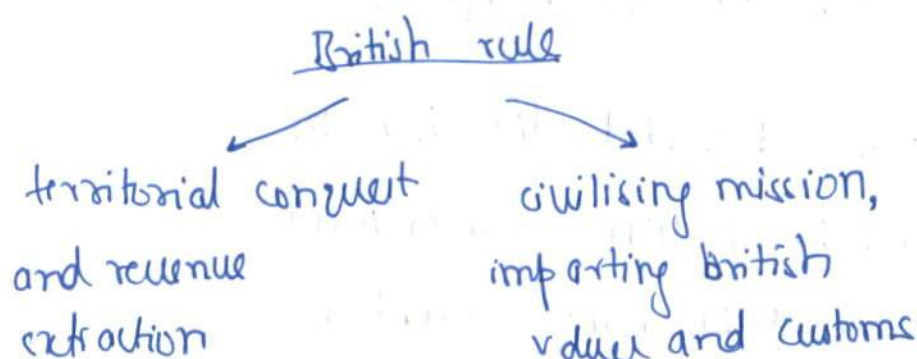
The schools represented diversity in
art forms in Indian subcontinent
and accommodative nature which is
continued till today.

12. The British in India wanted not only territorial conquest and control over revenues; they also felt that they had a cultural mission: to 'civilise the natives', change their customs and values. Critically discuss.

(250 WORDS) 15

भारत में अंग्रेज न केवल क्षेत्रीय विजय और राजस्व पर नियंत्रण चाहते थे; अपितु वे यह भी मानते थे कि उनका 'मूल निवासियों को सभ्य बनाने', उनके रीति-रिवाजों और मूल्यों को परिवर्तित करने का एक सांस्कृतिक मिशन भी था। आलोचनात्मक चर्चा कीजिए।

British rule was a transformational period in Indian history which not only changed geographical demarcations but also influenced the culture through doctrine of white man's burden - i.e. civilising the natives to adapt them to "superior" British customs and values.



The territorial intention was made blatant after Plassey and Buxar which made them "honest" huge revenues throughout their rule in continent.

Cultural -

- through charter Act of 1813 - Christian missionaries were allowed to practice, propagate and proselytize natives

- Macaulay Minutes, 1835 highlighted the disregard for vernacular and intent to impose foreign values and customs

- Various Acts such as Religious Disability Act, Illegals Act, anti abolitionist, uniformity in army dresses

- reactionary policies of governors such as Lyttelton, Wentworth, Salbousie, Wellbely

however, the notion was not a full fledged cultural conversion —

- They desisted from interfering in 'internal' matters concerned with religion and social practices after 1857

- ~~that~~ ~~that~~ Charles Trevelack regarded villagers as 'little republics' meaning that they were autonomous and practice self governance

- Their civilising practices were limited to creation of market and places in heart of Indians

These britishers adegated indian traditions and considered themselves as superior

race. They were able to influence some pockets dominantly however resilience of indian values made them stay even during those times.

13. Despite Jawaharlal Nehru and Mahatma Gandhi being close associates, there were significant differences between the two regarding the role of state and the control that it exercised. Comment. (250 WORDS) 15

जवाहरलाल नेहरू और महात्मा गांधी के निकट सहयोगी होने के बावजूद, दोनों के बीच राज्य की भूमिका और इसके नियंत्रण की सीमा के संबंध में अर्थपूर्ण मतभेद थे। टिप्पणी कीजिए।

The two prominent stalwarts in Indian freedom struggle - Mahatma Gandhi and Jawaharlal Nehru had different background, values and methods. Their notion about role of state held by each was different.

The differences in individual thought about role of state is as follows-

→ Power centre

JL Nehru regarded state to play ~~dom~~ dominant role in all spheres of public life - society, economy, polity. while Mahatma Gandhi regarded village as starting point of all governance

Economy

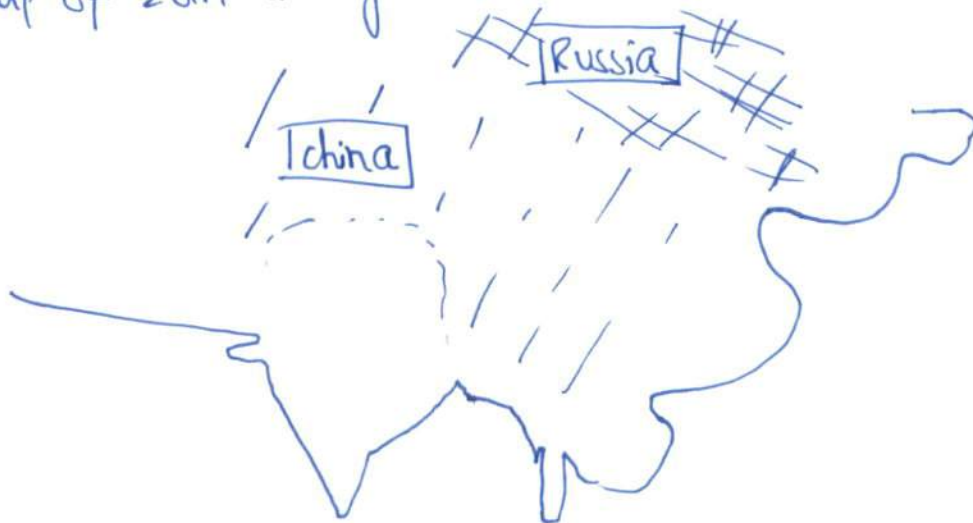
JL Nehru followed 'fabian socialism' and state's ownership of means of production. Gandhi however wanted community or society's ownership.

- ~~Heavy machines~~ and technology was embraced by Nehru as temples of modern India while Gandhi believed in human labour and skills.

14. Enumerating the reasons behind Sino-Soviet split in the second half of the 20th century, analyse its impact on the Cold War. (250 WORDS) 15

20वीं शताब्दी के उत्तरार्ध में चीन-सोवियत दरार के पीछे उत्तरदायी कारणों को सूचीबद्ध करते हुए, शीत युद्ध पर इसके प्रभाव का विश्लेषण कीजिए।

china and USSR both had
common communist ideologies. However
there was a marked ~~area~~ split in
the two ~~countries~~ countries in the second
half of 20th century.



Split reason -

- china open economic policy
in 1970s

- India - china conflict (1962) -

Russia supported India and USA
also helped India to check
Chinese expansionism.

- China probes in border -
Tibet annexation

15. History has disproved the prediction that democracy would not succeed in India. In this context, critically assess the achievements and challenges of democracy in India since Independence. **(250 WORDS) 15**

इतिहास ने इस भविष्यवाणी को नकार दिया है कि भारत में लोकतंत्र सफल नहीं होगा। इस संदर्भ में, स्वतंत्रता-प्राप्ति के उपरांत भारत में लोकतंत्र की उपलब्धियों और चुनौतियों का आलोचनात्मक आकलन कीजिए।

India was under monarchical rule since time immemorial. The biggest reformation in Indian polity took place in 1947 when leaders thought ~~democracy~~ as a means to achieve socio-economic development.

The democratic order since then has been strong, resilient and strengthening. The achievements and challenges can be discussed as-

Democracy as institution of development in India-

Achievements

- Power transition since independence from one government to another has been smooth

- democratic institutions such as Legislature, Executive, Judiciary have been strong and maintained separate of power
- people's awareness and participation despite having low literacy is growing as average voter turnout is around 70% today.
- India though having seen condition regimes never faced coup d'etat till day while most of colonial countries are still under autocratic rules

However, some challenges faced in functioning of democratic order is -

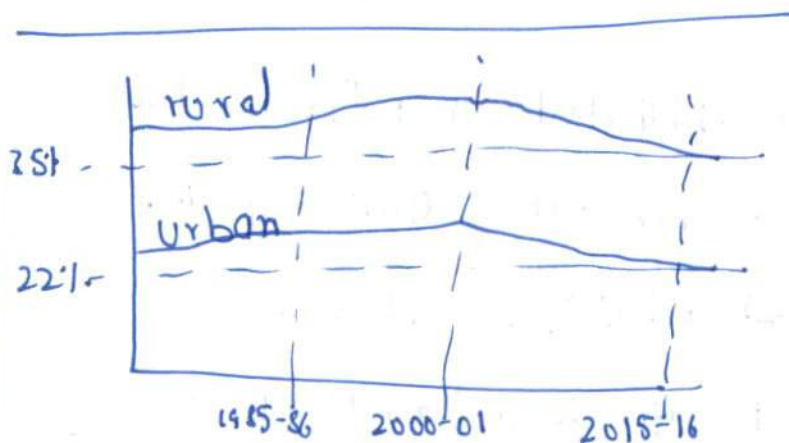
- Emergency of 21 months highlighted strong autocratic tendencies and loopholes in constitution
- repetitive use of President's rule to overthrow opposition government in states has been common
- use of caste, religion, money and violent means for winning elections is also a reality.

B.R Ambedkar highlighted that - "India has preferred democracy over demogogy i.e. reason over ~~and~~ rhetoric". The idea is still alive and India is the largest democracy in the world.

16. Enumerate the key issues faced by working women in contemporary Indian society and the steps taken by the government to address them. Also, critically examine the key features of Maternity Benefit (Amendment) Act 2017. (250 WORDS) 15

समकालीन भारतीय समाज में कामकाजी महिलाओं द्वारा सामना की जाने वाली प्रमुख मुद्दों और उनसे निपटने के लिए सरकार द्वारा उठाए गए कदमों को सूचीबद्ध कीजिए। साथ ही, मातृत्व लाभ (संशोधन) अधिनियम, 2017 की प्रमुख विशेषताओं का आलोचनात्मक परीक्षण कीजिए।

Women is a potential productive
~~potential~~ population which forms nearly
49% of Indian population. The participation
of women in economy has seen changes
- positive and negative though not
without challenges.



Female labor force participation (India)

Challenges

- Patriarchal society - women is relegated to domestic affairs and as a child rearing source only
- Gender Inequality - is rampant in society with women facing discrimination as pink colored job, role stereotyping, unequal wages
- Safety concerns - India is regarded as 'most unsafe' for women ~~can~~ ^{was} ~~work~~ ^{work} more than any by an independent research in 2018.
- Skills - women face discrimination since childhood and lack quality education and skill opportunities. It make them low skilled as compared to men
- no independent choice and decision making ability makes them follow parents or

in law's wishes.

some steps taken to address this-

- she Box by Ministry of women and child development against sexual harassment
- women entrepreneurship scheme by NITI Aayog
- National Policy for women highlighted need for gender sensitisation

Maternity Benefits (Amendment) Act, 2017-

- Increased paid maternity leave to

[26 weeks]

- [creche facility] to be provided

17. State the factors which have led to India being categorized as a water-stressed nation. Also, identify sustainable solutions for averting the crisis at hand. (250 WORDS) 15

उन कारकों का विवरण प्रस्तुत कीजिए जिन्होंने भारत को एक जल-दबावग्रस्त राष्ट्र के रूप में वर्गीकृत होने की ओर अग्रसर किया है। साथ ही, इस संकट को टालने के लिए संघारणीय समाधानों की पहचान कीजिए।

Niti Aayog's recent report Composite
Water Management Index states that
nearly 600 million Indians are at
water security. India despite having 16%
population and 20% livestock population
only have 4% of global fresh water.

Factors

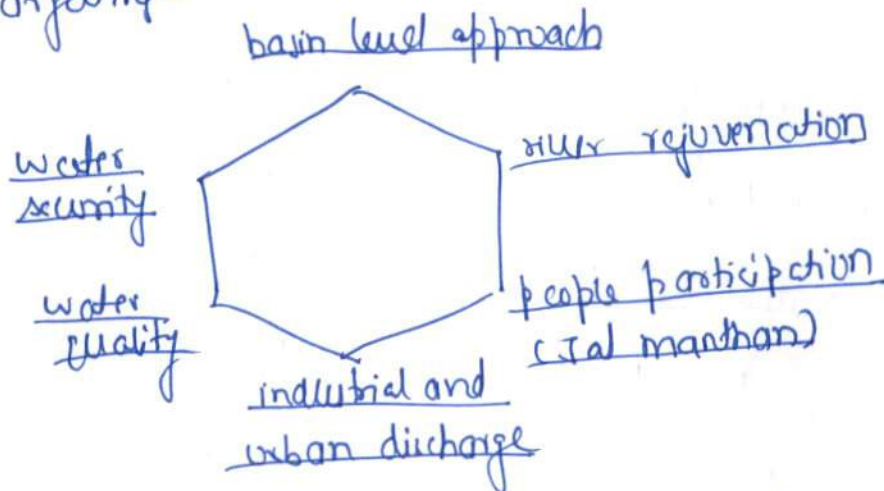
- World Bank mentions that per capita
water availability is below 2000m^3
and have wide regional disparities
- India lacks storage capacity for
capturing abundant rainfall
- Water quality is also abysmal.
NITI Aayog mentions that around 50%
of Indian rivers have severe to extremely

severe water pollution

- climate change have threatened the water security by impacting the Himalayan river system. According to estimates, about 20% reduction in river flow is expected due to climate change by 2050.
- no adequate treatment facility leads to untreated industrial and sewage discharge being fed into water system
- surface water and ground water are treated as separate sources and lack holistic perspective
- rivers are contaminated by heavy metals with atleast 14 rivers having 2 toxic metals beyond permissible limits (CWC report, 2017)

Solution:

India needs a holistic approach
forgetting-



Prithvi Shah Committee suggested that
National water commission be formed

- Basin level approach including water shed management can address
problems

- CPCB's role in water quality and water
pollution need to be strengthened

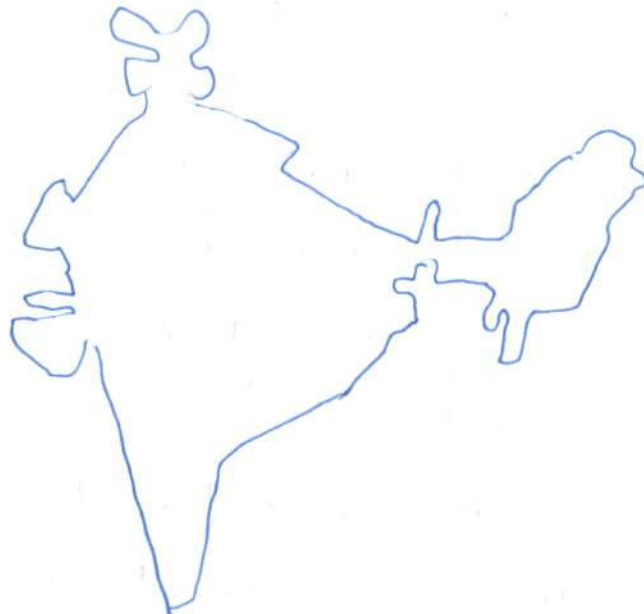
- rain water harvesting at decentralised level
e-chennai residential model

Thus, intersectoral coordination and multi stakeholder
participation can solve the current crisis.

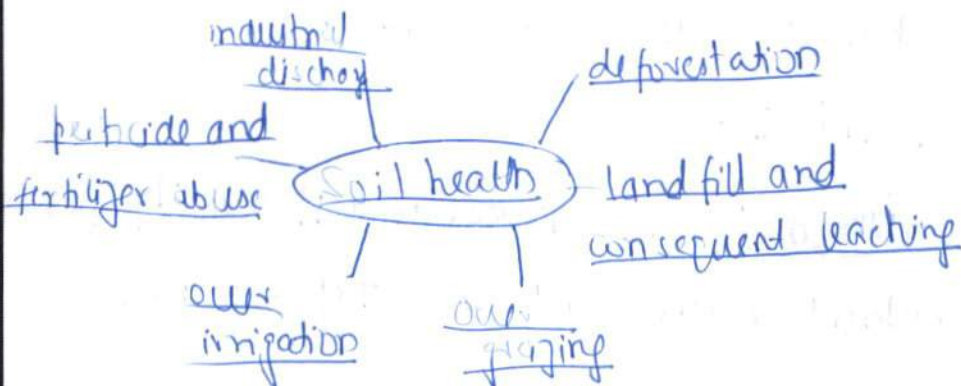
18. Arresting the deterioration of soil health is key to achieve food security. Discussing the regional variations in soil quality, mention some measures taken by the government for its improvement. **(250 WORDS) 15**

मृदा स्वास्थ्य के ह्रास की रोकथाम खाद्य सुरक्षा की प्राप्ति के लिए अत्यावश्यक है। मृदा की गुणवत्ता में क्षेत्रीय भिन्नताओं पर चर्चा करते हुए, सरकार द्वारा इसके सुधार के लिए उठाए गए कुछ कदमों का उल्लेख कीजिए।

India has largest cultivable land with productive soil cover. It has more than 26 major soil types and supports diverse food and crop requirement. However, deteriorating soil quality needs urgent measures for achieving aim of food and nutrition security.



Soil health faces challenges due to-



Regional variations in soil quality-

Steps taken by government for its improvement is-

- Soil Health Card, 2015 to assess soil quality and nutrient requirement in every 3 years.

- Paramparagat Krishi Vikas Yojana, 2016 - it promotes cluster based organic farming

- Zero budget Natural Farming - promotes natural farming methods without using synthetic inputs

- Promoting traditional cropping methods such as minimum tillage, crop rotation, mulch cover, agro climate regionalisation.

Soil is a natural resource which hosts many ecosystem services. Judicious use and sustainable management can help achieve the SDG 1, SDG 2 as protecting food security.

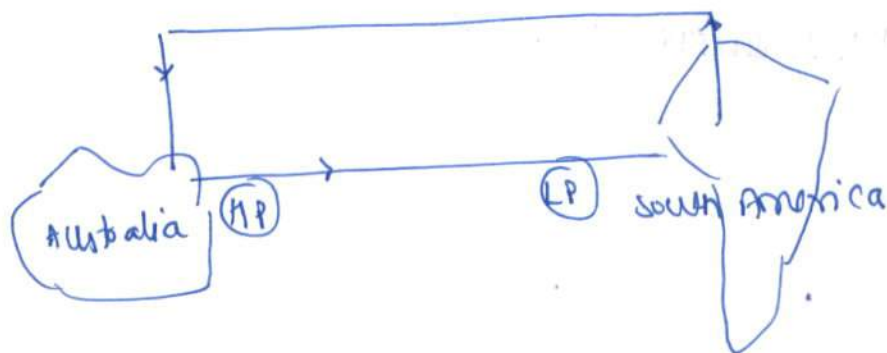
19. Give a brief account of the following phenomenon and their influence on Indian Monsoon; 15

निम्नलिखित परिघटनाओं और भारतीय मानसून पर उनके प्रभाव का एक संक्षिप्त विवरण प्रस्तुत कीजिए:

- (a) ENSO (एन्सो)
- (b) Madden-Julian Oscillation (मेडेन-जूलियन दोलन)
- (c) Indian Ocean Dipole (हिंद महासागर द्विध्रुव)

a) ENSO -

EL Nino and southern oscillation



It refers to a periodic warming off the ~~the~~ coast of ~~North~~ ^{South} America which creates low pressure conditions in Eastern Pacific ocean. It leads to rise in air current and creates high pressure conditions in Indian ocean (near East India).

Influence on Indian monsoon -

It has negative impact on Indian monsoon

and it correlated with reduction
in intensity of rainfall, delay in monsoon,
overall less than average rainfall.
India ~~is~~ is witnessing regime change
with ENSO advancing in 2019-20.

b) Madden-Julian oscillation -



It is a closed cycle of LP and HP
zone which circumvents the globe in
90 day period along equator.

Influence on Indian monsoon.

It creates dual impact -

Positive MJO-

The LP arm coincides with monsoonal low created during summer. This increases the intensity of rainfall.

Negative ~~Indian~~ ocean MJO-

The HP arm coincides with monsoonal low and negates the low pressure condition thus reducing intensity.

c) Indian ocean dipole-

It refers to
warming of Indian
ocean due to

which pressure condition changes.

Influence on Indian monsoonPositive IOD-

Indian Niño create high pressure condition and increases monsoonal intensity.

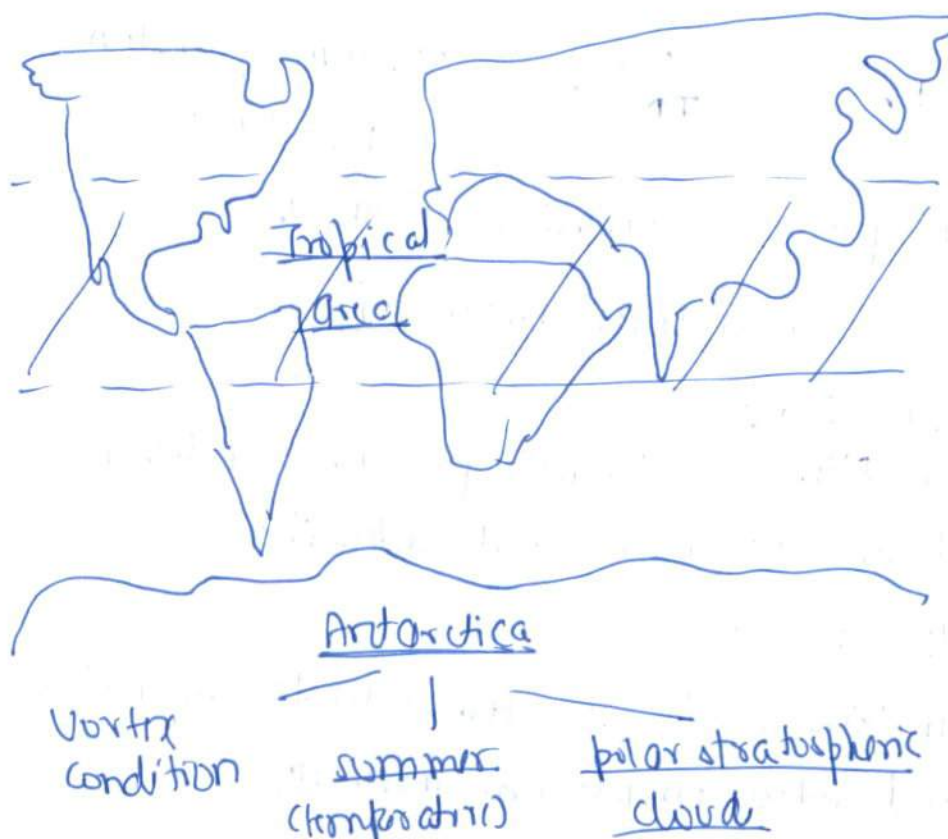
Negative IOD -

Indian Niño creates low ~~temp~~ temperature in Arabian sea and reduces monsoonal intensity.

20. Despite tropical areas being the major emitters of CFCs, the phenomenon of ozone hole formation is largely confined to polar areas and that too over the Antarctic and in early spring. Elaborate. (250 WORDS) 15

उष्णकटिबंधीय क्षेत्रों के CFCs के प्रमुख उत्सर्जक होने के बावजूद, ओजोन छिद्र निर्माण की परिघटना मुख्य रूप से ध्रुवीय क्षेत्रों तक ही सीमित है और वह भी बसंत ऋतु के प्रारंभ में अंटार्कटिक के ऊपर। सविस्तार वर्णन कीजिए।

Ozone formation is a chemical process which involves photochemical reactions. The depletion in ozone over Antarctica is due to local conditions created because of vortex, temperature and polar stratospheric clouds.



The reason for depletion of ozone over Antarctica is -

- Polar stratospheric cloud formation which gives a site for reaction between O_3 and Cl atoms.
- Vortex weather means the cloud is held over the Antarctica region for a considerable duration of time.
- advent of summer conditions increase temperature and sunlight conditions which starts a chain reaction in the clouds formed in stratosphere over Antarctica in winter.
- persistent nature of ozone depleting substances which continues to be

present in stratosphere for a long duration. 1 cl. atom can deplete 17,000 unit of ozone atom.

The only source of ozone depleting substances is human activities - refrigeration, air conditioners, industrial activity.

Several multilateral instruments such as Montreal Protocol, Kigali Amendment

have considerably reduced the emission of ozone depleting substances.