

# VISION IAS

www.visionias.in

## GENERAL STUDIES (TEST CODE : 1838)

Name of Candidate	DIKSHITA JOSHI		
Medium Eng./Hindi	ENG	Registration Number	
Center	ONLINE	Date	30/08/2022

INDEX TABLE			INSTRUCTIONS
Q. No.	Maximum Marks	Marks Obtained	
1	10		1. 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)।
2	10		2. There are <b>TWENTY</b> questions printed in <b>ENGLISH &amp; HINDI</b> इसमें बीस प्रश्न हैं अंग्रेजी और हिन्दी में छपे हैं।
3	10		3. <b>All questions are compulsory.</b> सभी प्रश्न अनिवार्य हैं।
4	10		4. The number of marks carried by a question/part is indicated against it. प्रत्येक प्रश्न/भाग के अंक उसके सामने दिए गए हैं।
5	10		5. 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।
6	10		6. Word limit in questions, if specified, should be adhered to. प्रश्नों में शब्द सीमा, जहाँ विनिर्दिष्ट है, का अनुसरण किया जाना चाहिए।
7	10		7. 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।
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:			

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

Plot No. 857, 1st Floor, Banda Bahadur Marg (Opp Punjab & Sindh Bank), Dr. Mukherjee Nagar  
Delhi- 110009

## EVALUATION INDICATORS

1. Contextual 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 Chalukyan architecture uniquely epitomises the grandeur and hybrid characteristic style of temple building. Elaborate. (150 words) 10  
चालुक्य स्थापत्य कला विशिष्ट रूप से मंदिर निर्माण की वैभवपूर्ण और संकर अभिलक्षणिक शैली का प्रतीक है। सविस्तार वर्णन कीजिए।

Chalukyan Architecture is known for Vesara Style i.e., a mix of Nagara and Dravidian style of temples. Architecture.

It has following features:

- ① Shikhara - styles - Latina, Prasada and Valashi taken from Nagara Style. - Durga Temple (Aihole).
- ② Panchayatana Style of temple of shrines is also a Nagara feature.
- ③ High Boundary Walls - a Dravidian

feature is taken from.

- (4) Gopurams are taken from Dravidian style architecture
- (5) Rock cut temples of Aihole are also inspired by Dravidian Architecture.

The beauty of Chalukyan Architecture is secured via World Heritage site status to Pattadakal temples.

2. The success or failure of a political movement is not always determined by the achievement of its stated goals. Discuss in light of the Ghadar movement.

(150 words) 10

किसी राजनीतिक आंदोलन की सफलता या विफलता सदैव उसके घोषित लक्ष्यों की प्राप्ति से निर्धारित नहीं होती है। गदर आंदोलन के आलोक में चर्चा कीजिए।

Ghadar movement <sup>was</sup> a revolutionary movement that began in 1906 and lasted till 1919.

Causes of Ghadar Movement

- Revolutionary Ideology
- Komagata Maru Incident (1914)
- Young radical leaders - Bhai Ramchand, Ajit Singh etc.

Success of Ghadar Movement

- ① Consolidated National Movement Overseas - HQ in San Francisco.
- ② Spread Revolutionary Ideology off overseas by its Press 'Ghadar' publication in Urdu and Gurmukhi

- ② Demonstrated communal  
unity - had Muslim and Hindu  
Leadership
- ④ Faced colonial forces with  
valour - courageousness.

### Failure of Ghade Movement

→ Depressed by ~~Get Act~~ Dejume of India  
Act - 1919.

→ It was weaker before modern  
weaponry and organisation of  
colonial powers

→ Lacked organisation and coherent  
ideology.

Thus, even though Ghade Movement  
failed, it inspires valour and  
fearlessness against injustice in  
modern times too.

3. Discuss the ways in which Gandhian conceptualisation of Sarvodaya influenced Vinoba Bhave's Bhoodan movement. (150 words) 10  
उन तरीकों की विवेचना कीजिए जिनसे सर्वोदय की गांधीवादी अवधारणा ने विनोबा भावे के भूदान आंदोलन को प्रभावित किया था।

Gandhian philosophy of Sarvodaya was based on 'Leo Tolstoy' - 'Unto the last'.

### Features of Sarvodaya

- ① Actions that ensure benefit of all - principle of maximum good.
- ② Prevent accumulation of resources and practice austerity - live like poor.
- ③ Doctrine of Trusteeship - Rich are only trustees of wealth.
- ④ World has enough for need but not for greed.

They inspired Vinodha Khane's  
Bhoodan Movement:

① Land reforms were failing due to exploitation of loopholes in land ceiling Act, hence, he began it to inspire attitudinal change.

② Land as a source of wealth, was not equitably distributed among masses. Thus he wanted to ensure that.

③ Being from upper caste and class his leadership did inspire many to socialist reforms led land distribution.

Thus, Sawodaya principles were first to inspire inclusive growth goals.

4. Bring out the evidences, which led to the Plate Tectonics Theory. Also, discuss how this theory explains the movement of plates.

(150 words) 10

उन साक्ष्यों को उजागर कीजिए जिनसे प्लेट विवर्तनिकी सिद्धांत का प्रतिपादन हुआ। साथ ही, विवेचना कीजिए कि यह सिद्धांत किस प्रकार प्लेटों की गति की व्याख्या करता है।

Plate Tectonic theory is given by McKenzie Parker and explains movement of earth's tectonic plates under certain forces.

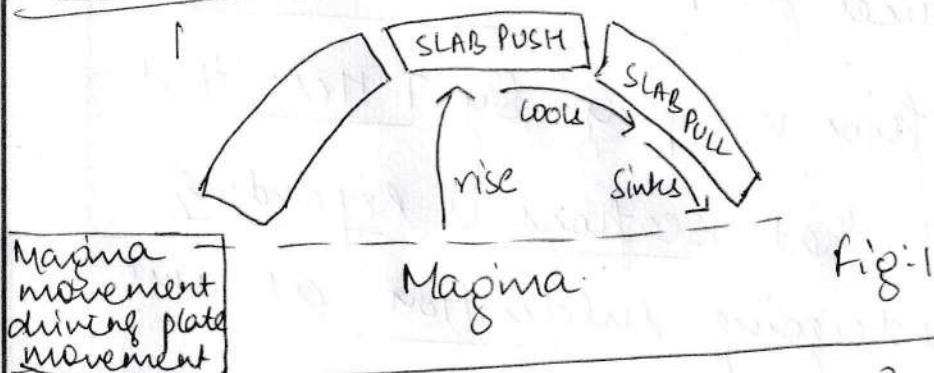
Evidences for Plate-tectonic theory:-

- ① 'Sea floor mapping' by T. Hess that showed that seafloor is expanding and undergoing subduction at same point
- ② Oceanic floor is younger than continental floor.
- ③ Mid Oceanic Ridges formed around divergent boundaries of plate, as one moves away from MOR age of rocks increase.
- ④ Oceanic floor is thinner and denser

than continental floor.

Movement of plates according to theory is because of :-

- ① Residual heat within surface of earth - Also supported by Conventional current theory by Arthur Holmes

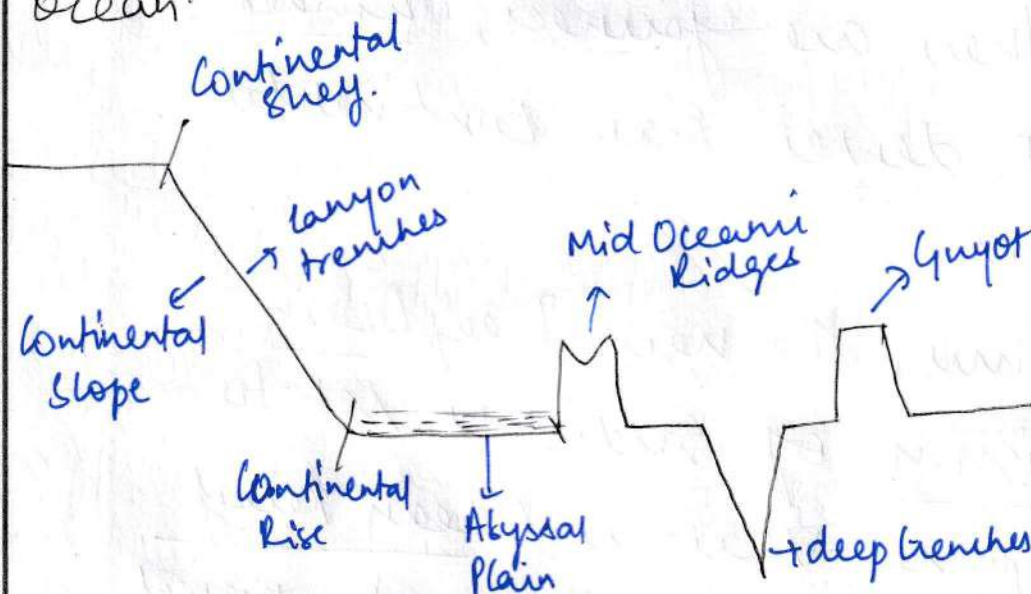


- ② Radioactive heat from within earth's surface core is driving plate movement.

Thus, Mckenzie Parker's theory explains Indian plate movement and convergent, transform, divergent boundaries across the world.

5. Give an account of the formation of Abyssal Plains and highlight the relief features found on these plains. (150 words) 10  
वितलीय मैदानों के निर्माण का विवरण दीजिए और इन मैदानों पर पाए जाने वाले उच्चावच संबंधी लक्षणों पर प्रकाश डालिए।

Abyssal Plains refers to deep ocean plains made of fine sediments. Found around 6000 metres below surface of Ocean.



Ocean Relief Features.

Abyssal Plain features :-

- ① fertile lands of fresh sediments in Ocean bed.

② They are also source of minerals and hydrocarbons. - methane hydrate etc., PMN.

③ They are created by regular explosion of lava along MOR

④ They are younger, thinner and denser than continental floor.

Thus, the new Deep Ocean Mission of India is set to explore various Ocean Relief Features and minerals present there.

6. What are the geographical and climatic conditions required for tea cultivation? In this context, discuss the reasons for the introduction of tea cultivation in the Duars region of the Himalayas by the British.

(150 words) 10

चाय की खेती के लिए आवश्यक भौगोलिक और जलवायविक दशाएं क्या हैं? इस संदर्भ में, अंग्रेजों द्वारा हिमालय के दुआर क्षेत्र में चाय की खेती शुरू करने के कारणों की विवेचना कीजिए।

Tea cultivation is practiced widely in India.

Conditions for tea cultivation

I. Geographical

- 1) Slopes topography
- 2) well drained fertile soil
- 3) cool climate.

II. Climatic conditions

- 1) Moderate Rainfall distributed throughout year.
- 2) Temperate climate
- 3) Moderate temperature

Britishers introduced tea plantation in Duars region;

- ① fertile alluvial plains of Duars
- ② sloping topography in Darjeeling hills.
- ③ Availability of labour from North Eastern States, Bengal, Bihar and UP.
- ④ There is .

7. Briefly bring out the distinction between flash droughts and conventional droughts. Also, examine the reasons behind the increasing vulnerability of India to flash droughts. (150 words) 10

आकस्मिक सूखा और पारंपरिक सूखा के मध्य अंतर को संक्षेप में स्पष्ट कीजिए। साथ ही, आकस्मिक सूखे के प्रति भारत की बढ़ती सुभेद्यता के कारणों का परीक्षण कीजिए।

Flash Drought is sudden onset of drought like conditions, while conventional drought is slow. Both however, relate acute shortage of water.

Flash Drought	Conventional Drought
① <u>Sudden and unpredictable</u>	① Slow and predictable
② Triggered by <u>climate change</u> - rise in temperature, decline in rainfall	② It is natural and mostly <u>characteristic</u> of <u>climatic conditions</u> - Ex-Kutch region of Gujarat.
③ Frequent occurrence can lead to <u>conventional drought</u> like condition	③ Areas prone to <u>conventional drought</u> may receive frequent <u>flash droughts</u> .

④ short term impact  
on soil, agriculture  
and life

④ long term impact  
on life conditions.

$\frac{2}{3}$ rd of India's area is vulnerable to droughts, hence, it has high vulnerability to flash droughts due to :-

① Geographical factors → India is a

tropical country, hence, direct impact on increasing insolation.

→ limited freshwater resources (only 4%)  
→ 60% of agriculture is dependent on rainfall

② Climatic factors → Increased evapotranspiration due to increase

↓  
glaciers in India  
melting at twice the  
rate

↑  
in temperature  
→ 29% of land is subject  
to desertification.

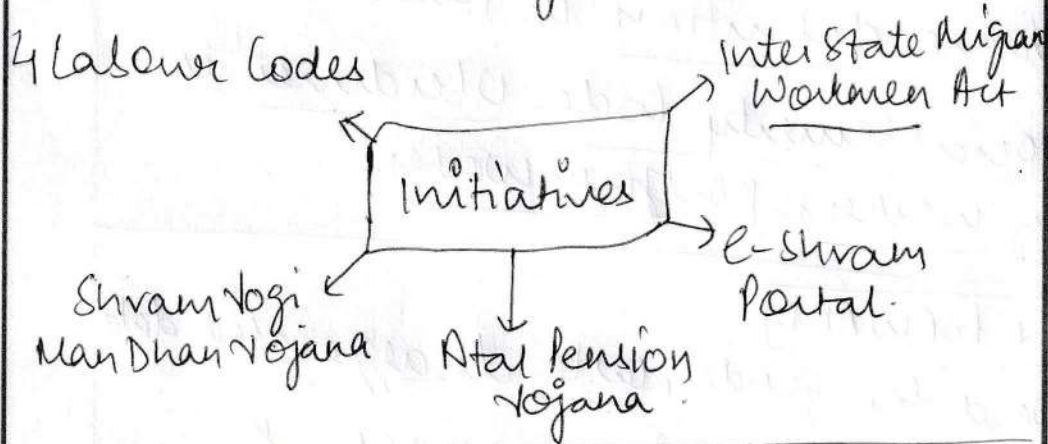
③ Anthropogenic factors → groundwater depletion  
for agriculture.

Thus, mitigating factors like cloud seeding,  
transpiration retardants can be used.

8. Though various initiatives have been taken to ensure social security for informal workers in India, there still exist gaps which need to be plugged. Discuss. (150 words) 10

हालांकि भारत में अनौपचारिक श्रमिकों के लिए सामाजिक सुरक्षा सुनिश्चित करने हेतु विभिन्न पहलें शुरू की गई हैं, फिर भी कुछ कमियां मौजूद हैं जिन्हें दूर करने की आवश्यकता है। चर्चा कीजिए।

India's 90% of workforce is employed in informal sector. Various initiatives taken by GOI



Gaps in social security of migrant informal workers are:-

- ① Lack of data based on gender, region, caste etc.
- ② High proportion of migrant workers among informal workforce - not accounted.
- ③ Absence of Grievance Redressal

## Mechanism

- ④ Feminisation of informal sector.  
- gender sensitive measures are absent.
- ⑤ Labour - Concurrence list subject, need for Centre-State coordination
- ⑥ Vague definition in labour codes.  
→ Gender sensitivity code - Overdiner is gig worker & platform worker.

## WAY FORWARD

- ① Need for gender, caste disaggregated data
- ② Gender sensitive measures in informal sector.
- ③ Adhere to international standards for wage and minimum pay - ES 2018.
- ④ Prevent dwarfism of MSMEs.
- ⑤ Toll free Number for grievance redressal firms, with Centre-State coordination informal sector, can help achieve SDG-8

9. Critically assess the government's move on raising the age of marriage of women in India from 18 to 21 years. (150 words) 10

भारत में महिलाओं के विवाह की आयु 18 वर्ष से बढ़ाकर 21 वर्ष करने के सरकार के कदम का समालोचनात्मक मूल्यांकन कीजिए।

Government has amended Prohibition of Child Marriage Act, Special Marriage Act and other related laws, to raise marriage age of women from (18 to 21 yrs)

Rationale behind raising age of marriage

- ① Ensure women participation in education, workforce
- ② Prevent violence Against Women -  
Domestic Violence higher among younger brides.
- ③ Reduce poverty by ensuring economic participation of women.
- ④ Health of child and mother, as early marriage affect nutrition indicators.
- ⑤ Recommended by various experts -

-Jaya Jaitley Committee:

Concerns with regard to raising age  
of marriage

- ① Already 23% child marriage rate in India. → Str not presence of law but its implementation that is needed
- ② Does not address structural issues - patriarchy, poverty, illiteracy that cause early marriage.
- ③ Experts suggest (18-24) is ideal age of pregnancy and motherhood.
- ④ Already highly educated women are out of workforce (69% - as per ES 2019).

Thus, need to address structural issues of poverty, skilling, gender sensitive employment, for women empowerment. Imperative to achieve  
SDG-5

10. Reservation for locals in private sector has again brought the debate around regionalism into focus. In this context, examine whether regionalism is a threat to national integration. (150 words) 10

निजी क्षेत्रक में स्थानीय लोगों के लिए आरक्षण के मुद्दे ने क्षेत्रवाद के इर्द-गिर्द होने वाली बहस को पुनः केंद्र में ला दिया है। इस संदर्भ में, परीक्षण कीजिए कि क्या क्षेत्रवाद राष्ट्रीय एकता के लिए खतरा है।

Recently, Haryana Government announced reservation for locals in private sector. This is manifestation of regionalism, the ideology of exhibiting loyalty towards one's region by virtue of distinct culture, language or geography.

Regionalism is seen as threat to national integration as :

- ① leads to 'son of soil' theory and creates ethnic stratification. Ex-Maratha vs Bihari.
- ② Hurts inter-state cooperation and creates conflict - Ex-River Water Disputes open around regional identity.

- ③ Can lead to secessionist tendencies  
Ex - Nagas demanding Nagalim.
- ④ leads to otherisation and discrimination Ex - North East student face discrimination in mainstream areas.

However Regionalism can also be useful for national unity.

- ① Cooperative federalism - regional parties can ensure demands of locals are met.

- ② Economic Development - for instance economic growth of Chattisgarh, Jharkhand has improved post secession

- ③ ensures liberty of thought and expression and accommodation of diversity. Ex - Three language formula in Southern States.  
Thus, Regionalism itself is not a threat, until it lead to secessionist tendencies

11. Explain how agricultural surplus, growth of crafts and trade, and growing population led to the second urbanisation in ancient India.

(250 words) 15

व्याख्या कीजिए कि किस प्रकार कृषि अधिशेष, शिल्प और व्यापार की वृद्धि तथा बढ़ती जनसंख्या के कारण प्राचीन भारत में द्वितीय नगरीकरण हुआ है।

Second urbanisation in Ancient India ensued around Rig Vedic Era after decline of Indus Valley Civilisation.

It was ensued by following factors

I. Agriculture Surplus

→ Settlement around Gangetic Plains - facilitated high agricult

ure output

+ Development of steel also helped in clearing forest

→ Livestock and agriculture produce were source of wealthy Ex-Govnat

## II. Growth of Crafts & Trade

- Gangetic River System provided  
source for inland water trade.
- Maueryan Art polished and  
wooden palaces polished
- North Black Polished Ware Pottery  
was at its zenith during its  
period.
- Rock Cut Architecture led to  
Uchitya and Viharas for settlement  
of monks (Jain and Buddhist)
- Metal Craft with steel development  
led to fine weapons, that helped  
in expansion of empires.

## III - Growth in Populations

- Due to fertile lands, Mahajanpads

rose around Ganga River Valley.

→ Increase in population helped  
create bigger infantry, cavalry-  
that helped in expansion of  
Janpads.

→ Further, frequent conquest led  
to expansion of settlement  
westwards (North West - Swat Valley)  
and Eastwards (South East Asia).

→ Southern India also saw secondary  
urbanisation during Gangetic  
Valley urbanisation.

Thus, population, agriculture  
and trade have always been  
at centre of urbanisation and  
prosperity.

12. India of the 18th century failed to make progress economically, culturally and socially at a pace, which would have saved the country from collapse.  
Comment. (250 words) 15

18वीं शताब्दी का भारत आर्थिक, सांस्कृतिक और सामाजिक रूप से उस गति से प्रगति करने में विफल रहा, जो देश को पतन से बचा सकता था। टिप्पणी कीजिए।

India of 18<sup>th</sup> century was ruled by the last rule of Mughal rulers and the state of affairs is one of reason for collapse of country.

Various failures during 18<sup>th</sup> century are:-

① Economic failures

① high drain of wealth from treasury to meet military adventures  
Ex- Aurangzeb was waging war against almost all states.

② Extravagant lifestyle of rulers while revenue were on decline.

③ High contrast between rulers and masses - highlighted by Fransois Bernier.

## ② Cultural failures

① Turned friends into foes.  
→ for instance Amangzeb fought  
with lifetime friends of Mughal rule  
like Rajputs.

② Imposition of Uniformity and  
Religious Intolerance.

+ Bringing back Jaziya, mass conversion

③ Lack of unity among ruling class  
- fought for power by hook or crook.

## ③ Social failures

① Lack of communal harmony that  
existed during Mughal Rule of Akbar

② High inequality and lack of  
scientific secular education.

③ Limited investment on modernisation  
of armed forces / Naval force.

④ High inter-regional rivalry in  
Subcontinent.

British exploited all these  
vulnerabilities to win war and  
longest across various regions  
of country.

In 18<sup>th</sup> century India  
stagnated economically, culturally  
and socially leading to collapse  
and capture by colonial power.

13. The withdrawal of the Civil Disobedience Movement triggered a two-stage debate on the strategic course of India's freedom struggle. Elucidate.

(250 words) 15

सविनय अवज्ञा आंदोलन की वापसी ने भारत के स्वतंत्रता संघर्ष की रणनीतिक कार्यप्रणाली के संबंध में दो-चरणों वाली बहस को आरंभ कर दिया। स्पष्ट कीजिए।

Civil Disobedience Movement  
(March - April, 1930) was withdrawn  
post Gandhi-Irwin Pact in 1930.

It triggered a two-stage debate  
with respect to ~~whether~~ longest  
leaders should take up Civil  
Entry. The debate was :-

- ① For Civil Entry - Struggle-Triumph  
Struggle Strategy. Vs.
- ② Against Civil Entry - Struggle-  
Victory Strategy

Rationale For Civil Entry :-

- ① Key positions in provincial  
Government and work for masses.

- ② Demonstrate capability of Indians of 'self-rule'.
- ③ Instill confidence among masses in Indian leadership.
- ④ Address concerns of hostile groups while in power - Zamindars, Muslims etc.

### Rationale Against Council Entry:

- ① Political offices may make leaders lose focus from freedom struggle.
- ② There is no real devolution of power to provincial government hence, limited scope for reforms.
- ③ Mass agitation may fire out if leadership takes government offices.
- ④ Gandhiji was against Council Entry.

However, finally, Gandhiji agreed for Council Entry by leaders. He gave following directions:-

- ① to wear political offices like horns of thorns.
- ② Use opportunity to demonstrate governance under Indigenous leadership.

Thus, Congress Council Entry in 1937 provincial elections proved its political strength, efficiency to rule, and acquire loyalty of erstwhile hostile groups.

This helped in later smashes of Individual Satyagraha, Quit India Movement

14. Throw light on the (causes, course and outcomes of the Civil War) which followed the Russian Revolution. Also, bring out the reasons behind the Bolshevik victory. (250 words) 15

रूसी क्रांति के बाद हुए गृहयुद्ध के कारणों, गतिविधियों और परिणामों पर प्रकाश डालिए। साथ ही, बोल्शेविक विजय के कारणों को भी स्पष्ट कीजिए।

Russian Revolution around  
early 20<sup>th</sup> century inspired  
several movements in India.  
Hence, it is a subject of study.

Cause of Civil War

- ① High inequality between working class and state.
- ② loss of liberty of citizens due to Lenine policies of Stalin.
- ③

15. What are Glacial Lake Outburst Floods (GLOFs)? Highlighting the susceptibility of the Himalayan region to GLOFs, state the measures required to address them. (250 words) 15

ग्लेशियल लेक आउटबर्स्ट फ्लड्स (GLOFs) क्या हैं? GLOFs के प्रति हिमालयी क्षेत्र की सुभेद्यता पर प्रकाश डालते हुए, इनके समाधान के लिए आवश्यक उपायों का उल्लेख कीजिए।

Glacial lake Outburst floods refers to sudden rise in water levels of rivers due to breaking of dammed glacial lake, either due to melting or overflows.

Recent Chamoli floods in Uttarak had were due to GLOF.

Susceptibility of Himalayan Regions to GLOF:

- ① Melting rate of glaciers is twice as much in Himalayan Region, due to Global warming.
- ② Ensuing Albedo Effect's positive feedback cycle (Fig. 2)

### ③ Topography of Himalayan Region

→ Ex-bowl topography of Guwahati make it susceptible to floods.

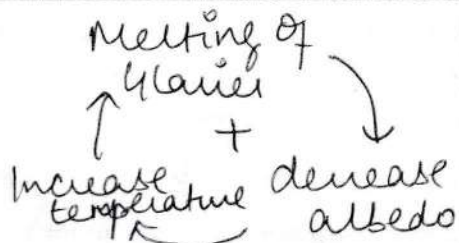


Fig 2. Albedo positive feedback cycle

### ④ Anthropogenic Causes

→ deforestation in Himalayan Region  
ISFR (2022) highlight high deforestation in Arunachal Pradesh.

→ Encroachment on flood plains

→ Development → dams, roads affecting local geology

→ Rising Carbon emissions - leading to rise in temperatures

### ⑤ Geographical Causes

→ High susceptibility to seismic activity in Himalayan Region  
- lies in Zone IV and V.

## Measures Needed to address them

### ① Risk Reduction Measures

① Siphoning off water from glacial lakes - Ex - Sikkim uses HDPE pipes to source glacial water for village use.

② Make room for water - Netherlands is undertaking deepening river beds, creating alternate channels for excess water flow.

③ Hazard Mapping of susceptible location and prevent habitations.

④ Climate Change Mitigation - Meeting Paris Agreement Goals.

⑤ Social and Environment Impact Assessment of development projects. Thus, planning of development as per CDRI, Sendai framework can help mitigate impact of GLOF.

16. Highlighting the significance of critical minerals, provide an account of their distribution in India and the world. (250 words) 15

महत्वपूर्ण खनिजों के महत्व को रेखांकित करते हुए, भारत और विश्व में उनके वितरण का विवरण प्रस्तुत कीजिए।

Critical Minerals refer to precious minerals needed for various industrial and development purposes. Ex-Lithium, Coal etc.

### Significance of Critical Minerals

- ① Crucial for economic growth
  - Aid in manufacturing - Ex-Steel is indispensable for industrial development
  - Technological advancement - Ex-Semi-conductor chips require Lithium Palladium.
  - Boost Exports and Integration with Global Value Chain - Ex- China
  - Meet Energy needs. Ex-Coal, Oil, Natural Gas.

② Need for Environment Conservation.

→ Non-fossil fuel energy Ex-Thorium  
for nuclear energy.

→ help meet Climate Mitigation  
Goals. Ex-solar panels made of  
critical minerals.

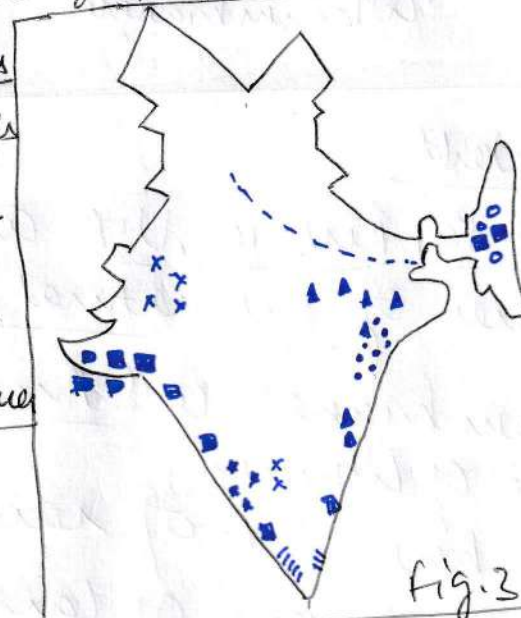
Their Distribution across India

→ Although India largely  
depends on imports  
for critical minerals

→ It is 5th largest  
producer of coal

→ 2nd largest producer  
of steel

→ 25% reserves of  
thorium.



▲▲ - Coal

●●● - Bauxite

- - - - Plate deposit

○○○ - Uranium

x - Lithium, Copper

■ - Crude Oil, Natural Gas

\* - Steel / Iron

|||| - Thorium

## Distribution of Critical Minerals in world

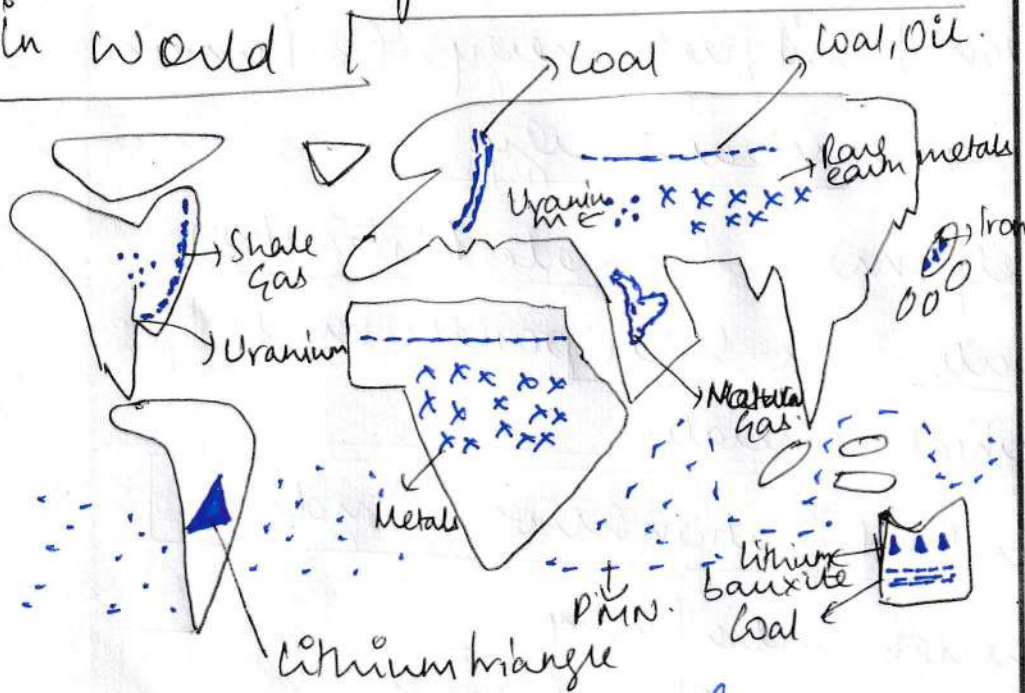


fig. 4.

### Across World.

→ West Asia, Russia, USA are major  
producer of oil, natural gas

→ Lithium triangle in S. America largest  
reserve of lithium

→ China has 98% of rare earth metals

→ Germany is one of largest producer  
of coal.

Thus, minerals geo presence is not  
directly proportional to development across  
the world

17. Highlighting the importance of ice sheets, discuss the likely impact of their melting on the planet with special focus on India. (250 words) 15

हिम चादरों के महत्व पर प्रकाश डालते हुए, भारत के विशेष संदर्भ में पृथ्वी पर उनके पिघलने के प्रभाव की विवेचना कीजिए।

Ice sheet are large swaths of frozen glaciers and permafrost largely concentrated in polar regions of world.



Ice sheet Across world. Fig. 5

Reasons for melting of Ice sheet

- Global warming - Rising temperature
- Decline in Albedo due to black carbon emission
- Increase in UV radiation due to Ozone holes
- Change in current in Oceans

## Impact of Melting

- ① Rise in sea levels - Almost all of Indian coastal cities are susceptible to sinking by 2050 - IPCC Report
- ② Freshwater inflow - change in Ocean circulation - Overturning of Atlantic Meridional Oceanic Circulation
  - one of 9 tipping points
  - Impact temperature distribution across world and India
  - Rainfall in India will be impacted.
- ③ Permafrost Melting - Release Carbon emissions ⇒ further increase temperatures
- ④ Agriculture and Ecosystems
  - Decrease in duration of Agriculture

- Shifting of habitation, agriculture polewards.
- Impact biodiversity like snow leopards (India's project - Sunder Himalayas)

- ⑤ Fishing and Marine Resources
- Freshwater marine species across Arctic, Antarctic region -
  - Geo-political competition for access to marine resources in Arctic (India - Observer in Arctic Council)

- ⑥ Rise in Sea Surface Temperature
- India experiences 10% of world cyclones - It will increase with rise in temperature
  - Thus, melting of ice sheets is a non-reversible climate phenomenon
  - hence, need to be mitigated, as per Paris Agreement (1.5°C) goal.

18. What are twin cyclones? Discuss the role of Rossby waves and Madden-Julian Oscillation (MJO) in their formation. (250 words) 15

जुड़वाँ चक्रवात (ट्विन साइक्लोन) क्या होते हैं? उनके निर्माण में रॉस्बी तरंगों और मैडेन-जूलियन दोलन (MJO) की भूमिका की विवेचना कीजिए।

Twin Cyclones are cyclones that originate <sup>near</sup> at equator and move in both directions - Northern and southern hemisphere

Rossby Waves

- They generate due to inertial force of earth's rotation.
- They aid in creating necessary rotation force for cyclone.
- They are ever present.
- As equator has very low coriolis force, Rossby waves aid in providing necessary circulating force to cyclones

18. What are twin cyclones? Discuss the role of Rossby waves and Madden-Julian Oscillation (MJO) in their formation. (250 words) 15

जुड़वाँ चक्रवात (ट्विन साइक्लोन) क्या होते हैं? उनके निर्माण में रॉस्बी तरंगों और मैडेन-जूलियन दोलन (MJO) की भूमिका की विवेचना कीजिए।

Twin Cyclones are cyclones that originate <sup>near</sup> at equator and move in both directions - Northern and southern hemisphere

Rossby Waves

- They generate due to inertial force of earth's rotation.
- They aid in creating necessary rotation force for cyclone.
- They are ever present.
- As equator has very low coriolis force, Rossby waves aid in providing necessary circulating force to cyclones

## Madden Julian Oscillation

→ It is a movement of clouds  
to and from between Pacific  
and Indian Ocean.

+ They affect climate and  
weather phenomena in Indian  
Ocean.

+ It is meteorologically related  
with ELNINO and La Nina  
and therefore, impact sea surface  
temperatures across Indian Ocean.

+ As MJO decreases rainfall  
across Indian Ocean, it leads to  
rise in temperature ( $27^{\circ}\text{C}$ ) and  
thus help creating cyclones.

19. Since independence, planning strategies for women's upliftment has evolved from welfare to development to empowerment. Elucidate. Also, discuss the role played by voluntary organizations in this context.

(250 words) 15

स्वतंत्रता के पश्चात, महिलाओं के उत्थान के लिए नियोजन रणनीतियां कल्याण से लेकर विकास और सशक्तीकरण तक विकसित हुई हैं। स्पष्ट कीजिए। साथ ही, इस संदर्भ में स्वयंसेवी संगठनों द्वारा निभाई गई भूमिका की भी विवेचना कीजिए।

Women's upliftment has been at core of planning strategies of India. It can be seen in following ways :-

### I. Welfare Approach

- ① Constitutional Provisions under exceptions given under Article 15
- ② Panchayati Raj Act - 331 - reservation in Gram Panchayat and ULBs under 73<sup>rd</sup> and 74<sup>th</sup> CAA.
- ③ Right to Education, Provision of Child Marriage Act
- ④ Provision of Domestic Violence Act

## II Development Approach

- ① National Food Security Act - Nation  
Card in name of eldest female.
- ② Indira Gandhi Pension Scheme for  
Widows, Elderly.
- ③ Beti Bachao Beti Padhao Scheme  
to encourage education.
- ④ Kasturba Gandhi Balika Vidyalaya

## III - Empowerment Approach

- ① Janani Shakti Yojana - Cash  
Incentives.
- ② POSN Act, POLSO Act.
- ③ National Rural Livelihood Mission  
- SHG programme
- ④ National Mission on Sustainable  
Agriculture - Mahila Kisan Sashakti-  
aran Dan Yojana.

## Role of NGOs

- ① Strengthening SNY - 'SEWA', Kudumbashree have played significant role
- ② Women Movement - Anti Arrack Movement / Chipko Movement by voluntary organisations.
- ③ Naz Foundation - played significant role transgender women empowerment
- ④ NGOs for marginalised sections like sex workers.
- ⑤ Education and Attitudinal Change - Vinodhara, Nanki Kali Organisation
- ⑥ Rescue homes for women affected by violence.

Thus, Voluntary Organisations have accelerated government's efforts in empowering and development of women

20. How far do you agree with the view that globalisation has aggravated the challenges faced by the poor in India? (250 words) 15

आप इस विचार से कहां तक सहमत हैं कि वैश्वीकरण ने भारत में निर्धनों द्वारा सामना की जाने वाली चुनौतियों को और बढ़ा दिया है?

Globalisation refers to interconnectedness of social, economic, political sectors of a country across the world.

Impact of Globalisation in aggravating poverty

- ① Rise in informalisation of labour  
→ informal worker earn  $\frac{1}{20}$  wage of formal worker
- ② Jobless Growth - that led to decline / impeded growth of labour intensive sector - manufacturing Agriculture
- ③ Integrated economies of world.  
→ Global financial crisis - 2008, due to interconnectedness led to recession, unemployment

- ④ Roll back of state - due to increase in privatisation, led to decline in welfare measures
- ⑤ Urbanisation and Migration led to slums - increasing marginalisation
- ⑥ Development led Displacement - aggravated poverty among tribes, dalits etc.
- ⑦ feminisation of labour - due to informalisation, as well as migration, feminisation of agriculture.
- ⑧ Increased Inequality due to capitalism. Ex - Green Revolution etc.
- ⑨ Regional Disparity - 52-1 incidence of poverty in Bihar against 1% in Kerala. Due - agglomerated growth.

However, it has also helped in exacerbating poverty :-

① Empowerment of women - increased participation in workforce with service sectors.

② Non-State Actors - NGOs, CSOs, have aided in development of marginalised sectors, women etc.

③ Entrepreneurial spirit - Rise of Billionaires post Globalisation.

④ Have aided in economic growth - India is fastest growing economy

⑤ Economic stability with engagement with IMF, NDB etc.

Thus, Globalisation itself is not responsible for poverty, but lack of inclusive growth. Thus, measures needed to achieve inclusive growth. (SDG-10)