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GENERAL STUDIES (TEST CODE : 1838)

Name of Candidate	Aniket Hirde	Registration Number	1045939
Medium Eng./Hindi	English	Date	29/08/22
Center	Online		

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	
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14	15	
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16	15	
17	15	
18	15	
19	15	
20	15	
Total Marks Obtained:		
Remarks:		

INSTRUCTIONS

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. There are **TWENTY** questions printed in **ENGLISH & HINDI** इसमें बीस प्रश्न हैं अंग्रेजी और हिन्दी में छपे हैं।
3. **All questions are compulsory.**
सभी प्रश्न अनिवार्य हैं।
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. 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. Word limit in questions, if specified, should be adhered to.
प्रश्नों में शब्द सीमा, जहाँ विनिर्दिष्ट है, का अनुसरण किया जाना चाहिए।
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।

16-B, 2nd 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

Time : 9:05 - 11:57

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.

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।

Chalukyas was a kingdom which ruled in S. India with Badami as its capital.

Architecture of Grandeur

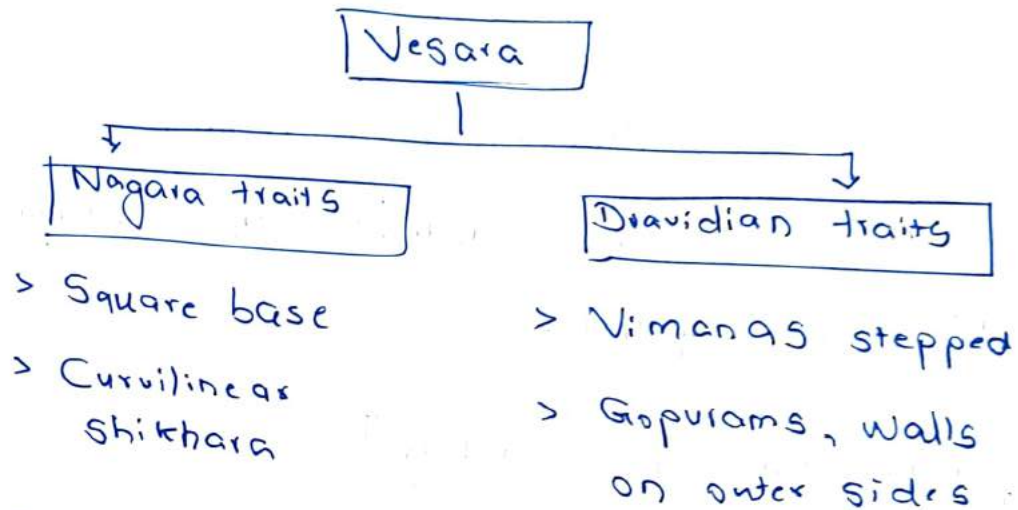
① Badami & Aihole caves at Ravan-pchadi are one of the largest in India.

② The temples built were larger than average heighted temples.

Hybrid Characteristics

> Chalukyas focused on Vesara style of architecture which combined both

Dravida & Nagara styles:



Chalukyan temples are:-

- ① Vesara style: Aihole & Badami
- ② Nagara style: Papantha.
- ③ South-Indian: Sangameswara.

Thus, Chalukyas paved way for hybrid architecture mixing South Indian & North-Indian traits.

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 was a
San-francisco based movement in 1914
which was started by ex-soldiers
& peasants.

Stated Goals of Ghadr Movement

- ① Gather revolutionary base across world
- ② Publish materials exposing British injustices.
- ③ Bring resurrection across all the colonies of British at once.
- ④ Strike terror in the hearts of imperialist.

Failure of stated objective

- ① Ghadr movement took off in Lahore, Ferozpur, Rawalpindi: after Komagata Maru incidence in 1915.
- ② However, it was crushed by British using Defence of India Act, 1915.

However, it wasn't really failure

- ① It spread awareness about injustices of Komagata Maru incidences.
- ② It inspired revolutionaries later.
- ③ British preferred negotiating with congress rather than tackling violent acts.

Thus although it couldn't meet its objective immediately, the political movement was not a failure.

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।

Gandhi's concept of Sarvodaya literally translates to 'Sarva' + 'Uday' meaning rise (lifting) of all.

Influencing Vinoba Bhave's Bhoodan

- > Bhoodan' movement which means 'Bhoomi' + 'Dan' was aimed at redistributing lands consolidated with Zamindars under British.
- > People with large land holdings were voluntarily asked to donate lands
- > It was re-distributed among landless & sharecroppers.

- > This led to more equity in society based on Gandhian concept.
- > It was further extended to Gramdan where in villages were donated for resettlement of landless.

However it had limitations

- ① Land owners were reluctant
- ② Land distributed per person was too less for self-sufficiency.

The concept of Sarvodaya is today enshrined in our Constitution in the form of Article 39 (b) & (c) - redistributing wealth.

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 Tectonics Theory states that plates comprising of both - continents & ocean floor move over Asthenosphere.

Evidences of Plate Tectonics

- ① Rising of Himalayas due to Indian plate pushing Eurasian.
- ② Formation of Mid-oceanic ridges.
- ③ Active seismic / volcanic zones at plate boundaries.
- ④ Finding on similar minerals on two different continents showing they moved apart. Eg:- Gold in Brazil

of Africa.

- 5) Fossil from different era showed different climatic conditions.

Explaining movement

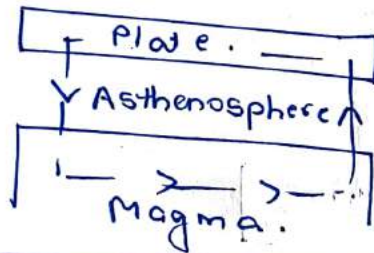


Fig 1. Convection Current

> Due to different temperatures & densities, metals get separated in Asthenosphere

> Radio-active decay causes convection current which leads to movement of plates.

Recently, geologists have discovered more plates to further explain the earthquakes in 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 are the plains in the deep ocean spread all across the world.

Formation of Abyssal Plains

- ① Spreading of sea-floor due to convectional current.
- ② Under-water volcanoes building the land-surface.
- ③ Movement of plates due to tectonics.
- ④ Erosion of sea mounds due to ocean currents.
- ⑤ Biological activities by marine organisms.

Features in Abyssal Plains

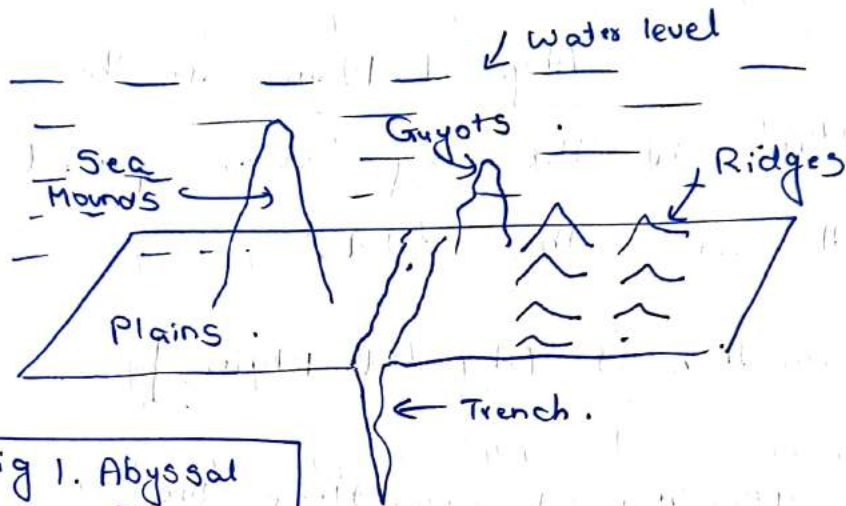


Fig 1. Abyssal Plains

- ① Sea mounds are the hills under water.
- ② Trenches are the deepest points.
- ③ Guyots are fully submerged hills.

Abyssal plains form one of the most productive grounds in terms of hydrocarbon, poly-metallic nodules, etc.

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।

India is one of the largest producer of tea today & has cultivation in North-East, Darjeeling, Karnataka, Kerala, etc.

Geographical Conditions

- ① Well drained soil - preferably slopy.
- ② Alluvial soil rich in iron.
- ③ No extreme weather events like heavy winds, floods, etc.

Climatic Condition

- ① Frost-free days during harvesting.
- ② Good rainfall - Eg:- Western Ghats.

③ Temperatures of $20-30^{\circ}\text{C}$.

Reasons for introduction in Dar

- ① Duars are the Darjeeling - Sikkim & partly NE Himalayas.
- ② Slopes provided well-drained soil.
- ③ Ambient climate throughout year.
- ④ Floodplains produced by Himalayan rivers provided adequate water.
- ⑤ Closer to their capital - Kolkata.

Even today, the Darjeeling Tea is world famous for its quality & authenticity.

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।

Droughts are the condition of scarcity of water. Around 68% of Net Sown Area of India is drought prone (2nd ARC). Today drought has taken new form as flash drought.

	Flash	Conventional
Time period	> <u>3-4 days to week</u>	> Occurs over <u>months / years</u> .
Causes	> <u>Localized or Spontaneous</u>	> <u>Prolonged over long time</u> :
	i) <u>Heat waves</u>	i) <u>Years of ground-water use</u>
	ii) <u>Heavy evaporation</u>	ii) <u>Encroaching of water bodies</u> .
	iii) <u>Spontaneous water demands, etc.</u>	iii) <u>Erratic rains due to climate change</u> .

	Flash	Conventional
Effect	> <u>Smaller area</u> , Smaller time	> <u>Larger area</u> , over the years.
Example	> Drought in <u>Maharashtra</u> in 2022	> Drought of <u>2009</u> in India.

Increasing Vulnerability to Flash Droughts

- ① Increasing temperatures leading to more evaporation of surface water.
- ② Increased construction, deforestation leading to aquifers damage.
- ③ Erratic monsoon with intense break leading to monsoon droughts.

India has lost \$ 80 billion to disasters in last 20 years (UN Report).

We need concerted efforts to tackle conventional & emerging threats.

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।

Informal workers refer to the workforce which are not formally registered with government. They form 95% of workforce (PLFS 19-20) & do not enjoy social security benefits like paid leaves, insurance, etc.

Various Initiatives Taken

- ① PM Atal Pension Yojana to provide post retirement pensions.
- ② PM Rojgar Pratsahan Yojana to formalize the economy.
- ③ Social Security Code 2020 fixing minimum wages, working hours, etc.

- ④ e-Shram portal to register informal workers & provide accidental insurance.

Gaps Remain

- ① Informal workers not empowered to challenge the employees.
- ② outsourcing due to rigid labour laws has led to more informalization.
- ③ Access to schemes is an issue.
- ④ Schemes like PPF are also dominated by formal sector.

Going ahead, we need to formalize economy or recognize the informal economy through contract, gig regulations to ensure decent working conditions for all (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 recently increased the minimum marriageable age of girls to 21 bringing it at par with boys.

How will it help?

- ① Parity between genders in line with Article 15.
- ② Giving more opportunities of career, education, etc. to girls.
- ③ Giving legal basis to authorities.

However problem remains

- ① Even when age was 18 & 25! of women of age 30 today were married before 18 years (NFHS-5).

- ② This shows it is mentality & not the law which needs changes.
- ③ Parents marry daughter early because of social norms, fear of dowry, etc.
- ④ Even in liberal societies, there are lesser avenues for girl education & career. Eg:- 1:7 ratio in IITs.
- ⑤ Giving 3 years more is of no use if girls are not economically productive.
- ⑥ Might lead to more underground marriages & misuse of law by authorities for harassment.

Although, raising age is one component, we need to accompany it with mindset change to stop child marriages.

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 उर्द-गिर्द होने वाली बहम को पुनः केंद्र में ला दिया है। इस संदर्भ में, परीक्षण कीजिए कि क्या क्षेत्रवाद राष्ट्रीय एकता के लिए खतरा है।

In 2021, Haryana brought 'Haryana

State Employment of Local Candidate

Bill which reserved 75% of jobs in private sector for locals. It promoted regionalism which is placing regional interest over national interest.

Threat to National Integration

- ① Creates distinction between workforce - locals vs outsiders which is against Article 19 - Right to Profession.
- ② Reduces investments in India due to constraints causing lesser economic activities & hence social unrest.
Eg:- Venezuela.

- ③ Some regionalist movement can turn violent & secessionist. Eg:- khalistan.
- ④ Reduces effectiveness of national policies
Eg:- Ek Bharat Sreshtha Bharat.

However, it can be positive

- ① Strengthens diversity by voicing demands of all regions.
- ② Promote democracy through regional parties.

Regions have to uphold their demands & progress to some extent.
But it should be on outward looking factors like skills, R&D, etc. v/s inward looking like reservations.

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।

Ancient India period refers roughly to before 250 AD which includes Harappan civilization, Mauryan, etc.

Role of Agricultural Surplus

- ① Agriculture increased as man moved from cattle rearing (Early vedic) to wheat cultivation (later vedic).
- ② To store agricultural surplus, granaries were erected in cities.
Eg:- Harappan sites.
- ③ It led to stagnancy in human lives as hunting was no longer needed.

leading to formation of urban centres.

Growth of Crafts & Trade

- ① Food sufficiency means people could move to other occupations.
- ② Boat making, metallurgy, cosmetics, etc. flourished leading to manufacturing hubs. Eg:- Pataliputra on the banks of Son.
- ③ To safeguard the settlements, forts were built leading to urbanization.
- ④ Trade with central Asian brought concepts like Satraps which were de-centralized units like states/cities.

Growth of Population

① Settlements rather than hunting-gathering gave more time to procreate.
Hence population increased

② However, land could satisfy limited people & hence people migrated.

Eg:- Harsha kept Niolpitu to track migration to urban centres.

Even today, the urbanization continues due to same three factors.

Agri surplus from Green Revolution increased income to settle in urban areas, population explosion in 1980s & trade avenues in cities like Mumbai.

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 the 18th century was in a state of disarray with multiple power centres like Marathas, Mughals & even foreign powers trying to establish their rule.

Failed at Economic Progress

- ① Over-dependence on agriculture.
- ② No new innovations like boat making, steel, etc. when Europe was blooming with Industrial Revolution.
- ③ Non-existent connectivity - no roads, railways, etc.

- ④ No investments from emperor who only enjoyed lavish life.

Failed at Cultural Progress

- ① Handicrafts were limited with no mass manufacturing.
- ② Multiple religions, creeds existing without unity. Eg:- Anglo-French Rivalry, Tipu Sultan was where Marathas supported British.

Failed at Social Progress

- ① Dismal position of women - sati, child marriage prevalent.
- ② Education system too traditional for changing world & limited to

upper castes

- ③ Non-existent healthcare.

Could have saved the country

- ① British couldn't have taken advantage by pitting one group against other.
- ② Modern machinery to fight British could have been developed.
- ③ Lower inequalities would have improved economy of country.

However, the learnings have been well taken where through Aatmanirbhar Bharat, PM-JAY, NEP 2020 are trying to ensure economic, social & cultural progress.

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।

The Civil Disobedience

Movement was withdrawn in 1934 after British started severe oppression due to failure of 2nd Round Table Conference.

2 - Stage Debate post CDM

	<u>Swarajists</u>	<u>No-changers</u>
Ideology	<ul style="list-style-type: none"> > <u>keep the movement going</u> > <u>Council entry</u> to keep political activities going 	<ul style="list-style-type: none"> > <u>Pause movement</u> as <u>masses</u> were tired > <u>Constructive activities</u> like Charkha, Khadi, etc.

SwrajistsNo-changers

Why the ideology?

Mend or end the council

Keep people involved in mass struggle.

Positives of approach

> Voice against Bureaucracy

> Taking up causes like

> Defeat of anti-India bill

Anti-touchability
liquor consumption
etc.

like Public

Safety Bill.

Issues with Approach

> Couldn't keep away the lust of power

> Did not work for economic upliftment of untouchables

> failed to take

peasant's cause.

> khadi was expensive.

Although both the approaches had both positive & negatives, they eventually managed to challenge the British empire in India.

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 was a revolution which happened in 1917 & which overthrew the Czarist regime. However, it was followed by a civil war.

Causes of Civil War

- ① Russia was most damaged in World War-I due to non-modernized defence forces.
- ② High inflation, high prices led to social unrest.
- ③ Lack of immediate strong control.

after collapse of Czar - everyone
wanted their share.

Course of war

New government pulls out of world war

→ Tries to stabilize economy
through increasing production → fails

→ People take to streets →

Widespread protests → Suppression

by government → Bolsheviks take
over.

Outcomes of war

① Bolsheviks rise to power.

② Shift to closed economy with
focus on strategic goods. Eg:-

Machinery, defence equipment, etc.

Reasons for Bolshevik Victory

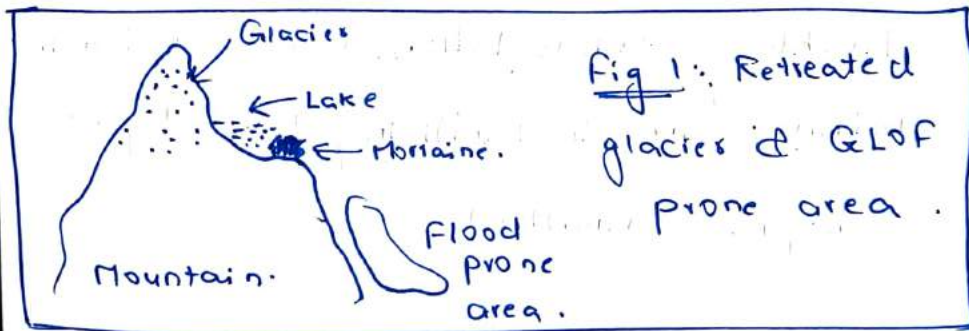
- ① Weak governance after Revolution.
- ② Supported by masses - peasants, workers, v/s support of only few high class to Government.

Russian revolution & subsequent civil war provided new model of communism which provided that state has social welfare responsibilities in addition to political & economic duties.

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 Lakes are the lakes formed when glaciers retreat leaving behind Moraine as embankments. Sometimes these moraines burst leading to floods known as ~~GLOFs~~ GLOFs.



Susceptibility of Himalayas

- ① Himalayas have the largest number of glaciers outside polar areas.
Eg:- Biafo, Batura, etc.

- ② Himalayan glaciers are melting at rate ~2x higher than global average (IPCC AR 6)
- ③ At Himalayas, Indian plate is pushing against Eurasian plate leading to rock falls, spill-over effects.
- ④ Himalaya region is tectonically active.
- ⑤ Reckless deforestation, road construction, mining are destabilizing the slopes (Chopra Committee).

Measures Needed

- ① Mapping of Glacial Lakes using Synthetic Aperture Radar.

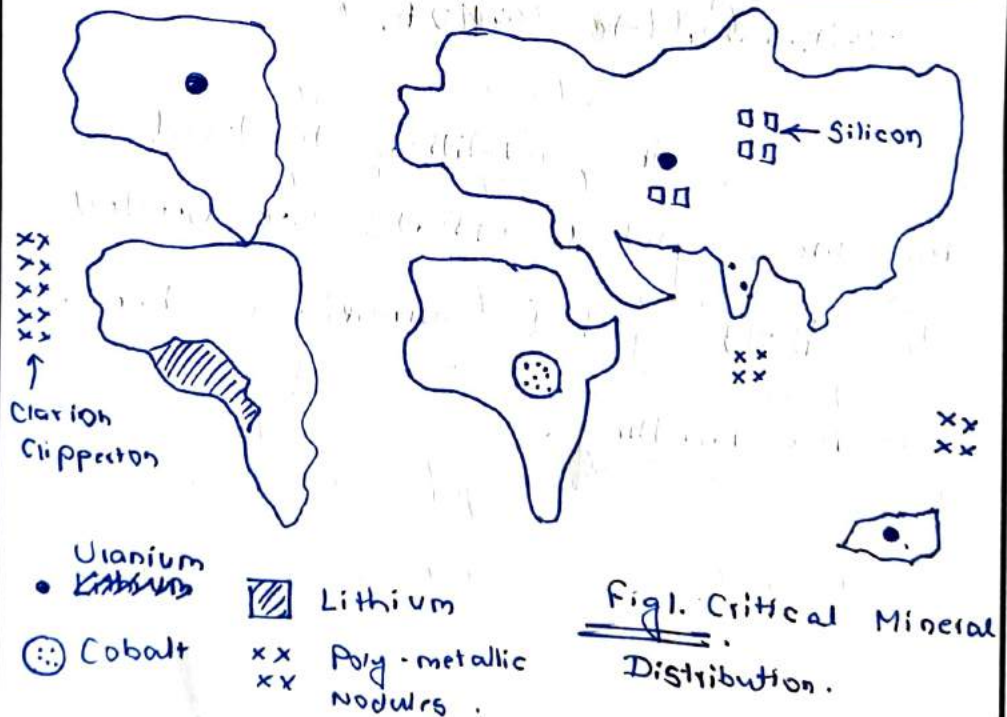
- ② Maintaining channels for natural ecological flow of rivers to avoid flooding.
- ③ Reducing local pollutants like Black Carbon by substituting Diesel with EVs & biomass with LPG.
- ④ Stabilizing slopes through afforestation
- ⑤ Shifting of communities extremely vulnerable to GLOF.

In addition to local measures, global efforts are needed to halt global warming & hence glacier melting.

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 are minerals which are often available in lower quantities but are super-valuable in their end-uses. Eg:- Lithium, Manganese, Uranium, Poly-Metallic Nodules, etc.



Distribution in India

- ① Uranium: Very low quantities in Cuddapah basin, Chhattisgarh Basin, Aravallis.
- ② Monazite :- Andhra, Kerala, Odisha, etc
- ③ Lithium: Brine pools of Rajasthan.
- ④ Poly-metallic Nodules :- Indian Ocean region — 5kg/m² availability.

Significance of Critical Minerals

- ① Use in new technologies - Lithium Cobalt in Electric Vehicles.
- ② Silicon in semi-conductor is used in almost all electronic devices today.

- ③ India's polymetallic storage can satisfy its energy needs for next 100 years.
- ④ High-value products give boost to economy in lesser volume output.
- ⑤ Geopolitical significance like oil in 1970s.
- ⑥ Relatively environment friendly.
Eg:- 3 stage Nuclear Plant from Monazite as fuel.
- ⑦ Abundant v/s Fossil Fuels.

India has started missions like Deep Sea Mission, Critical Mineral Partnership with Australia to explore these minerals sustainably.

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 - sheets are huge
mass of ice usually found near
poles.

Importance of ice - sheets

- ① Have high albedo - reflecting
excess energy & maintaining the
heat balance.
- ② Produce cold air mass leading to
temperature stabilization.
- ③ Support biodiversity like polar
bear, seal, etc.

- ④ Maintain permafrost which has stored carbon, GHG, etc.
- ⑤ Insulates the ocean from further Freezing
- ⑥ keeps the ocean current working. Eg:- Arctic Meridional Ocean Current.

Impact of Melting

In 2021, 6 trillion tonnes of ice melted in a single day in Arctic (IPCC AR6) which has serious impacts.

On World:

- ① Rising sea level - highest in last 3 decades

- ② Weakening ocean current leading to lower heat re-distribution.
- ③ Lowering Albedo increasing global warming.

On India:

- ① Arctic amplification affects Indian Ocean & hence Indian Monsoon.
- ② Loss in fish productivity which is staple food for ~ 16 million people.
- ③ More extreme events like El-Nino.
- ④ Weakened Indian Ocean Dipole leading to lower rain.
- ⑤ Increased heat waves. Eg:- April 2022.

India has rightly taken sustainable exploitation of ice-sheets through its Bharati, Himadri, Maitri stations.

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 two
cyclones produced simultaneously due
to different weather conditions.

Role of Rossby Waves

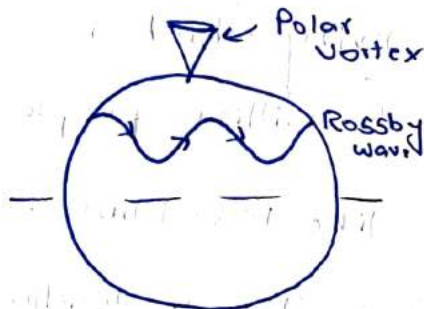


Fig 1. Rossby wave

> Jet streams are
sinusoidal wind
patterns circling
the globe due
to temperature

difference between temperate & polar
region

> When temperature difference drops,
jet streams meander more forming
Rossby Waves.

- > More meandering means more cold air comes in contact with sub-tropical warm air leading to extra-tropical cyclones.

Role of Madden-Julian Oscillation

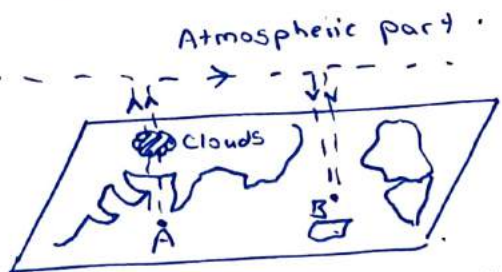


Fig 2 Madden
Julian Oscillation

- Eastward movement
- > Madden Julian Oscillation is eastward moving ocean-atmospheric phenomenon.
- > It has convective phase (pt. A) where rainfall / cyclones occur.
- > As it moves east, the cyclone frequency towards east increases leading to twin cyclones.

With increasing global
temperatures due to climate change,
both - Rosby waves & MJO are
intensifying leading to higher
frequency of twin 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।

India since independence through various measures has brought female literacy from ~ 20% to ~ 65% today showing empowerment.

Welfare Approach (1947-70s)

- ① Constitutional provisions like Article 15, Article 16 prohibiting discrimination on grounds of sex.
- ② Provision of healthcare, education to all women.
- ③ Strict laws like Dowry Prohibition, etc to avoid harassment.

Development Approach (1970s-1990s)

- ① Formation of Self Help Groups like SEWA for development.
- ② Women started joining male dominated ITs, Factories, etc.
- ③ Poverty alleviation schemes like 20 point programme focussed on women.

Empowerment Approach (1990+ Today)

- ① Safer workplace. Eg:- POSH Act.
- ② Reservations in local bodies through 73rd / 74th Amendment.
- ③ Bettering health through schemes like SAG (Scheme for Adolescent Girls), ICDS, etc.

- ④ Opening up of economy leading to more jobs. Eg:- IT Industry.

Role Played by Voluntary Organisation

- ① SHG like kundumbashree (Kerala) has majority women workforce.
- ② Formation of voluntary cooperatives like Lijjat which empowered women.
- ③ Providing skill - training like tailoring, beauty parlour, etc.
- ④ Spread awareness about rights against domestic abuse, harassment, etc

Going ahead, it is important to ensure parity in gender to reap the ~~econom~~ demographic dividend effectively.

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 Mixing up of markets, thoughts, cultures, etc. due to increasing inter-connectedness in the world. In India, it sped up after 1991 liberalisation.

Aggravating Poor's Challenges

① Inequalities have increased with top 10% in India owning 60% wealth (World Inequality Report 2022)

② India is facing imported inflation affecting poor disproportionately.

- ③ Traditional industries have ruined.
Eg:- Plastic replacing copra in Kerala.
- ④ Healthcare has become more expensive
due to foreign pharma MNCs.
- ⑤ Education has become inaccessible
due to proliferation of private
schools & extreme focus on English
- ⑥ Loss of employment due to globalisation
and automation.

However, it has the impacts

- ① Economic growth of India has
increased leading to more budget
for social welfare.
- ② Spread of ideas like equality
improving condition of poor women.

Eg:- Today 88% women can say "No" to their husbands (NFHS -5)

- ③ Online proliferation will make health tele-consultation, education easier going ahead.
- ④ New markets for local handicrafts - Eg:- Kalpuri Chappals which had lost relevance in between.
- ⑤ Better technologies like precision farming, drones, etc. making small land holding of poor viable.

Thus globalization has had both (+ve) & (-ve) effect - we need to protect the poor from its adverse effect while reaping its benefits.