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GENERAL STUDIES (TEST CODE : 874)

Name of Candidate	RAHUL JAIN		
Medium Eng./Hindi	English	Registration Number	24773
Center	ORN	Date	12/10/17

INDEX TABLE

Q. No.	Maximum Marks	Marks Obtained
1	12.5	
2	12.5	
3	12.5	
4	12.5	
5	12.5	
6	12.5	
7	12.5	
8	12.5	
9	12.5	
10	12.5	
11	12.5	
12	12.5	
13	12.5	
14	12.5	
15	12.5	
16	12.5	
17	12.5	
18	12.5	
19	12.5	
20	12.5	

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।

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EVALUATION INDICATORS

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

Overall Macro Comments / feedback / suggestions on Answer Booklet:

1.

2.

3.

4.

5.

6.

All the Best

Answer the following questions in not more than 200 words each:

1. The greatness of the Mughal achievement in the political unification of India was matched by the splendour and beauty of the work of architects, poets, historians, painters and musicians who flourished in the period. Comment.

भारत के राजनीतिक एकीकरण में मुगलकालीन उपलब्धियों की महानता वस्तुतः वास्तुकारों, कवियों, इतिहासकारों, चित्रकारों एवं संगीतकारों के कार्यों की भव्यता एवं सुंदरता से अभिव्यक्त होती है, जो उस काल में फले-फूले। टिप्पणी कीजिए।

Mughals entered India in 1526 and ruled for more than 300 years & politically & geographically unified the country. Their influence not only restricted with politics but is also seen in other domains:-

Architecture - ~~Culmination~~ Culmination of Persian architecture with Indian architecture. The geometry, simplicity & foresighting technique of Mughals (Persians) mixed with grandeur & lavishness of Indian style as evident in

- ① Taj Mahal, Agra [one of the seven wonders of world]
- ② Buland Darwaza, Fatehpur Sikri

③ Red fort, New delhi et al.

Poets & Music → ~~Poets~~ Poets & Musicians like Tansen, Baiju Bauru etc. were court poets of Mughals. Qawwali & Sufi Songs were popular. Indian (Hindustani) music got influenced with Persian lyrics (Urdu is liberally used.)

Historians → Abul fazal, feizi etc. & their work ~~As~~ Akbarname, Baburnama, ~~the~~ Humayunama etc. evidents the history of mughals & their administration.

The era was also marked by travellers from central asia who were historians & has recorded India in their great works

Painters → Ustad Mansoor, Daswant, Keru Jahangir etc. The period saw the

mixing of Indian style with Persian & European style of painting which still perceives as essential features of Indian paintings. Oil Painting, Charcoal painting & Portrait paintings emerged during this period.

Mughals though were from Persia & Turks but ~~are~~ when they invaded India became Indian & their influence is even seen today in varied fields.

2. Traditionally, India had developed wide-ranging water harvesting techniques in keeping with the local ecological conditions and their water needs. Substantiate with examples.

पारंपरिक रूप से भारत ने स्थानीय पारिस्थितिक दशाओं एवं अपनी स्थानिक जल आवश्यकताओं के अनुसार विविध प्रकार की जल संचयन (वाटर हार्वेस्टिंग) तकनीकों का विकास किया था। उदाहरण सहित पुष्ट कीजिए।

Ancient & Medieval India evidents
technological & scientific advancements of
India way ahead of Europe. Water
harvesting & storage techniques was central
importance in the cities.

- Indus Valley Civilisation :- Great bath
at Mohenjodaro evidents the storage
techniques {use of Chuna for water
proofing}

- Arthashastra by Kautilya evident the
water harvesting techniques of Maury
-an Period.

- Use of Big Ponds & their construction
around Temples in Southern India.

- Prevalence of wells in Dravidian architecture.
↳ evidents the storage & watershed practices.
- Baoli & Vav -: Ravi-Ki-Vav & Adalaj in gujarat evidents the practices in gujarat etc.
- Baodi's in Rajasthan to evade the water scarcity (Staircase wells)
- Mandar in MP → Efficient Rain water harvesting practices. : even evident today widely used in water supply of city
- ③ Khooni Bhandara, underground water drainage system in Bulnaupur (M.P.) - Mughal era
- Canal System for irrigation by ~~ferza~~ ferozshah Tughlaq.

Rain water harvesting was widely prevalent in ancient & medieval India to suffice water supply needs & for agricultural practices. The stated examples evident the same. & can be efficiently used for present day requirement as they were sustainable in nature..

3. Imperial rivalries of 18th Century Europe were played out in India as well. Comment in the context of the Carnatic Wars.

18वीं सदी के यूरोप की साम्राज्यिक प्रतिद्वंद्विताएं भारत में भी देखी गईं। कर्नाटक युद्धों के संदर्भ में टिप्पणी कीजिए।

During 18th Century, European Powers were in war around the globe for conquest of colonies & supremacy & the war was played out in India as well.

The Anglo-French rivalry was evident in way of Carnatic wars.

1st Carnatic War - (1744-1748)

In Europe Anglo-French war for Succession of Austria led to siege of Madras by France & in retaliation attack on Pondicherry by British Company. Treaty of Aix-la-Chapelle was signed to give Madras back to Britishers.

2nd Carnatic War (1741-54)

- Over succession of Hyderabad.
- British sided with Nizam Jung & French with his rival
- Treaty of Madras was signed to end the war

3rd Carnatic War (1756-63)

- 7 years long war in North America led to war in India.
- Robert Clive & other British officers with their smart diplomacy & naval supremacy defeated French in Battle of Wandiwash &

thus East India Company emerged as supreme power in India.

Thus, the Carnatic wars were the result of both the global war

between french & Britishers over
Imperial supremacy & to annex
India due to its resources & richness.

4. The Lucknow session of 1916 was a watershed event during the freedom struggle of India due to various reasons. Elucidate.

भारत के स्वतंत्रता संघर्ष के दौरान 1916 का लखनऊ सत्र विभिन्न कारणों से एक ऐतिहासिक घटना थी। स्पष्ट कीजिए।

Lucknow Session of 1916 presided by A.C. Majumdar is hailed as watershed event in freedom struggle for India.

Highlights of Session

① Extremists got entry back into Congress

— Post Surat Split, 1907. it was for first time extremists & moderates came together & old issues were laid off.

— Bal Gangadhar Tilak accepted to go via. constitutional means. Annie Besant emerged as potential leader as well

② Lucknow Pact between Muslim League & Congress

- Hindu Muslim came together & laid out common demands against rule
- Congress accepted Separate electorates for Muslims.

Thus Lucknow Session was a turnaround event in Congress & this led to great development for political freedom in country & can be evident as:-

① The Montagu-Chelmsford reforms, 1919

- ↳ based on demands of Congress & Muslim League
- ↳ A move for political empowerment of Indians (give away of Benevolent despotism)

② Hindu - Muslim Unity got strengthened

which helped in Non-cooperation movement.

However at the same time acceptance of Separate electorate led to the development of two nation theory (later) & became the roots for partition of country post independence.

The Lucknow Session is thus a very important movement in Indian history which propelled both the politics & freedom movement for then years ahead.

5. Reforms initiated by the Justice Party became a model for social affirmative action in the country. Comment.

जस्टिस पार्टी द्वारा आरंभ किए गए सुधार देश में सकारात्मक सामाजिक कार्यवाही हेतु एक आदर्श बन गए थे। टिप्पणी कीजिए।

Justice Party was established in Madras
Presidency ~~in~~ post 1915 by T. Nair &
Thyagraja Chetty with an objective
of promoting non-Brahmin interests
in country.

- Justice party hailed Brahmins of
taking over jobs & political leadership
places & overlooking interests of
non-brahmins.

- They were against congress as they
hailed it as Brahmin dominant
party & thus boycotted Annie Besant
led Home rule league & Gandhiji's
Non-cooperation movement

- To serve interests of non-brahmins they asked / demanded for separate ~~res~~ reservations for backward classes based on social background.
- later under leadership of Periyar they ~~start~~ started Temple movement & self-respect movement for reducing brahmanical dominance & promoting equality in society.

Thus it was the efforts of Justice Party & its leaders & their reforms which became a model for social affirmative action.

However they were also criticised to promote caste based politics even by non-brahmins (muslims etc.)

as they served interests of specific classes.

Thus the contribution of Justice Party in demands of reservation, self respect & Temple entry movement is vital in social upliftment of country.

6. War in the Korean Peninsula proved to be disastrous for Korea, a missed opportunity for the United States and a defining moment for China. Examine.

कोरियाई प्रायद्वीप में हुआ युद्ध कोरिया के लिए विनाशकारी, संयुक्त राज्य अमेरिका के लिए एक खोया हुआ अवसर तथा चीन के लिए एक निर्णायक क्षण सिद्ध हुआ। परीक्षण कीजिए।

Korean War (1951-53) was between North Korea & South Korea but in greater picture was a part of cold war between communist & capitalist forces.

North Korea was communist led & South Korea was democratic under influence of USA. As North Korea invaded ~~the~~ S. Korea, US & UN forces retaliated & went beyond the 39 degree channel (demarcated border) till Yale river (China - N. Korea border) & captured N. Korea. China warned US & UN forces

& in retaliation annexed Seoul, capital of S. Korea.

Thus ceasefire agreement was signed with 38 degree channel & political status quo.

Overall. Korean war had following
Consequences

- Korean peninsula suffered huge human & infrastructure losses & animosity even exists ~~day~~ today
 - ↳ North Korea went into isolation with Communist dictator.
- China gained the most as rising power under leadership of Mao Zedong & gained global attraction & position
- US was one of the biggest sufferers as it faced global criticism for

Crossing line, perpetuating war &
lost to communist state.

Korean Peninsula still suffers from
the tension despite ceasefire agreement
of 1953 & rising threat of nuclear
war is a cause of concern for
global world today.

7. The Munich Pact brought neither peace nor stability in relations between European countries, rather it turned out to be an act of appeasement that made war inevitable. Comment.

म्यूनिख समझौते ने यूरोपीय देशों के बीच संबंधों में न तो शांति उत्पन्न की और न ही स्थिरता, अपितु यह तुष्टीकरण की एक ऐसी कार्यवाही सिद्ध हुआ जिसने युद्ध को अपरिहार्य बना दिया। टिप्पणी कीजिए।

Munich Pact, 1938 was signed between Germany (Adolf Hitler) & Britain & France for annexation of Czechoslovak by German forces. Britain & France hailed pact as historical & pact for peace but it turned other way round.

The pact was a failure because..

- It encouraged fascist forces Nazi Party (Hitler) & Mussolini to go for further annexation → Poland was annexed next which led to war.

- It was a policy of appeasement as Britain & France thought Fascist forces will check the spread of communism in eastern Europe
 - The pact strengthened & gave rise to Hitler's popularity & his policy of Greater Germany - 3rd reich, which led to Germany further increase its naval & airforce fleet without hindrance
- Thus the Munich Pact was not a pact for peace but was a pact with mis calculation by Britain & France as a measure to check spread of Communism & serve their vested interest.
- The policy of appeasement not only

Increased confidence of fascist
forces but also strengthened them
geographically & militarily & made
the world war-II inevitable.

8. Explain how Gandhi's non-violent philosophy influenced Martin Luther King Jr.'s methods. Also discuss the contributions and accomplishments of King to ensure civil rights for all people regardless of race in America.

व्याख्या कीजिए कि किस प्रकार से गांधीजी के अहिंसावादी दर्शन ने मार्टिन लूथर किंग जूनियर के तरीकों को प्रभावित किया। साथ ही अमेरिका में नस्लीय भेदभाव के बिना सभी लोगों के लिए नागरिक अधिकार सुनिश्चित करने में मार्टिन लूथर किंग के योगदानों एवं उपलब्धियों की भी चर्चा कीजिए।

Martin Luther King Jr. was the central & most influential leader of American civil rights movement to abolish racial discrimination & demand of equal rights.

King was highly influenced by the non-violent & civil disobedience philosophy of Gandhi & used them widely in his movements. He hailed Gandhi as the greatest Christian born after Jesus Christ & his philosophy as the most practical & ideal way to solve racial problems in USA

The march from Selva to Montogemny was similar to what ~~gg~~ Gandhiji did in Civil disobedience movement, 1930.

① He used Montogemny bus incident & promoted non-violent, & civil disobedience methods & constitutional means to protest against government.

Contributions of Martin Luther King

- ① He led to a mass uprising in ~~Southern~~ Southern American States against racial discriminations
- ② With his powerful oratory skills, he convinced masses for non-violent means of struggle & gained global attention which pressurised US government to give equality rights

③ His speech "I have a dream" became the motto of movement which is even today hailed as most powerful & influential speeches ever.

for his contribution King was awarded Nobel Prize for Peace which he truly

deserved & is often hailed as "Gandhi of America". He experimented, used & established the Gandhian principles as live examples in front of world for global peace.

9. Apart from the linguistic reorganisation of states, the three language formula was an important part of government policy to address the language question in India. Discuss.

राज्यों के भाषाई पुनर्गठन के अतिरिक्त, त्रि-भाषा सूत्र भारत में भाषा की समस्या का समाधान करने की सरकार की नीति का एक महत्वपूर्ण भाग था। चर्चा कीजिए।

Post Independence, reorganisation of states was the biggest challenge in front of government.

The First State Reorganisation Commission - on under Fazal Ali recommended linguistic reorganisation of states which later served as policy for separation & creation of new states, which led to further linguistic issues -:

- ① medium of language {conversation} between state & centre
- ② medium of education
- ③ Constitutional directives to promote Hindi
- ④ Issue of national language
- ⑤ Fear among southern states to prevent

their languages.

To address above challenges in
1968, 3-language formula was introduced.

formula

- ① for Hindi Speaking States — English, Hindi & modern Indian language
- ② for non-Hindi Speaking States — English, Hindi & regional language

The idea was to sway away fear,
promote Hindi as national language &
simultaneously preserve regional languages
as well.

However, 3-language formula suffered
criticism as southern states opposed it
stating Hindi as regional & not as
national language.

3- language policy though could not achieve desired objectives even exists today as a part of National Education plan & is used as tool to pacify the linguistic issues.

~~Other~~

10. Enumerate the measures for the welfare of Unorganised Workers in India. In the context of problems being faced by 'domestic helps', discuss the need for additional measures to safeguard their interests.

भारत में असंगठित कामगारों के कल्याण हेतु किए गए उपायों को सूचीबद्ध कीजिए। 'घरेलू सहायकों' द्वारा सामना की जा रही समस्याओं के संदर्भ में, उनके हितों की रक्षा करने हेतु अतिरिक्त उपायों की आवश्यकता की चर्चा कीजिए।

More than 90% of Indian Work force works in Unorganised Sectors (Informal work + Agriculture) & thus their welfare is a duty of state (Article -

According to Labour Bureau, Unorganised workers refers to workers working in establishments which have less than 10 workers or are self-employed. (Agriculture etc.). More than 90% of Indian workers are Unorganised workers.

Measures for welfare

- ① Pradhan Mantri Swasthya Scheme
- ② Labour identification number

- ③ Rashtriya Swasthy Bima Yojana.
- ④ Skill development - PM Kaushal Vikas Yojana
- ⑤ Rashtriya Rojgar Protsahan Yojana
↳ To encourage employer for formal employment via. 2/3rd of EPF contribution by government.

Domestic Help are the workers doing domestic household works. Labour bureau identifies 3.9 million domestic workers in India of which maximum are females.

Challenges & issues of Domestic Workers

- ① No Job Security
- ② Not paid as proportional to work
- ③ Exploited, Inhuman conditions of work
- ④ Social Stigma associated {referred as Bai etc}
- ⑤ Cases of harassment & sexual offences against them.

⑥ Not counted under Employment Wage

Act: | ② lack of identity - no police verification

Thus additional measures are required.

- Mandatory registration of domestic helps via. employer with police
 - Covering them under Employment Wage act.
 - Training of modern equipments etc.
 - Providing free monthly health checkups
 - Setting up minimum standards of work on lines of Hong Kong, Singapore etc
 - Quick resolution of Sexual offences & harassment cases.
 - Use of Civil Societies/NGO's to take care of their needs & empower them.
- Thus ~~multi~~ multipronged approach is desired.

11. The manner in which the mentally ill have been treated in India suggests that policy measures alone may not be sufficient to address the challenges faced by them. Discuss.

भारत में मानसिक रूप से रोग ग्रस्त व्यक्तियों के साथ जिस प्रकार का व्यवहार किया जाता रहा है उससे यह सिद्ध होता है कि मात्र नीतिगत उपाय ही उनके द्वारा सामना की जाने वाली चुनौतियों का समाधान करने के लिए पर्याप्त नहीं हैं। चर्चा कीजिए।

WHO report states 4.3% of world's population suffers from ~~mental~~ mental illness & of which half of them resides in South Asia & thus is a cause of concern.

India due to huge population pressure, poverty, health issues, improper urban infrastructure, work pressure etc. is a center for mental illness patient & social stigma associated with mental illness further accentuates the cause.

The mental healthcare bill & National Health policy, 2017 tries to address the issues but the policy measures may

not be sufficient as -:

- ① Spending of Mental health is 0.06% of Health budget which is inadequate
- ② Only 3 psychiatrists per million is a huge mismatch of Doctors:patient ratio
- ③ Lack of adequate infrastructure at Primary health centres.
- ④ Social Issues
 - Social Stigma - mental illness perceived as black magic or prebirth sin
 - Often viewed as medical illness & not as illness due to societal conditions
 - Lack of awareness about mental diseases hinders timely cure of issues
 - Depression - in youths due to academic & work pressure.

Thus to address above issues which exists both in structure & society merely a policy won't suffice & thus government has to create adequate interventions at both levels to solve the issues & eradicate mental illness.

Urbanisation in planned way is a solution to reduce work & depression related stress & should be addressed.

12. Highlight the characteristics of Particularly Vulnerable Tribal Groups (PVTGs) and discuss the challenges faced by them. Also enumerate the measures taken by the government to address these challenges.

विशिष्ट रूप से सुभेद्य जनजातीय समूहों (Particularly Vulnerable Tribal Groups: PVTGs) की विशेषताओं पर प्रकाश डालिए एवं उनके द्वारा सामना की जाने वाली चुनौतियों की चर्चा कीजिए। साथ ही सरकार द्वारा इन चुनौतियों का समाधान करने हेतु किए गए उपायों को सूचीबद्ध कीजिए।

Particularly Vulnerable Tribal Groups (PVTGs)
are those tribal groups in which there
is poor growth in development indicators
& thus desire special interventions.

Characteristics of PVTGs

- ① Isolated & secluded with low levels of urban development
- ② High incidence of poverty, health issues
- ③ Low levels of education
- ④ lack of communication etc.

~~Minist~~ Ministry of Tribal Affairs on regular monitoring basis has identified 75 such tribes in country.

Challenges faced

- ① High health related issues
 - ↳ Prevalence of Sickle cell Anaemia in women
- ② Lack of development — low education
— low political participation
- ③ ~~Ex~~ Increasing encroachment by non-tribals
in their habitat area
 - ↳ Increasing cases of crimes atrocities against them.
- ④ Threat of extinction due to lack of communication
- ⑤ Possess vital information related to natural medical therapies & ayurveda
— however language barriers hinders the exchange of information.

Measures taken by Government

- ① Special Scheme for PVTG's

- identification of PVTG's
- constant monitoring & securing their interests
- state governments to take special measures fully funded by Centre

② Extension of Schemes for Tribes to PVTG's → Vanjeevan, Forest Rights Act, etc.

③ The Pt. Nehru's Policy of Tribal Panchsheel is a pragmatic solution which idealises the interest of tribes as most vital component & thus should be followed in both letter & spirit.

13. While suburbanisation is a common phenomenon in most urbanising countries, it is occurring at a relatively early stage of India's urban development. Enumerating the reasons behind this development, highlight the challenges it is creating for Indian cities.

यद्यपि उपशहरीकरण अधिकांश शहरीकृत हो रहे देशों में एक सामान्य परिघटना है, किन्तु भारत के शहरी विकास के संदर्भ में यह अपेक्षाकृत प्रारंभिक चरण पर में हो रही है। इस विकास के अंतर्निहित कारणों को सूचीबद्ध करते हुए भारतीय शहरों के लिए इसके द्वारा उत्पन्न की जा रही चुनौतियों पर प्रकाश डालिए।

Suburbanisation refers to development of agglomerations around or in peripheral areas of Urban cities. ~~Suburban~~ With increasing demand & growth of cities, Suburbanisation is a common phenomenon but occurs at gradual pace.

However opposite trends are seen in India as it is occurring at an early stage. Navi Mumbai, NCR & New Raipur evidences the same.

Reasons for such development

- ① Lack of education, Job, health & infrastructure facilities in villages,

- & towns → leading to migration in urban cities.
- ② Rising cost of land in cities ~~pro~~ forces people to live in outer periphery of cities.
 - ③ Unplanned development - lack of effective governance.

Challenges of such development in Indian Cities

- ① Affects Urban City planning as policy makers fail to gauge the magnitude of influx migration
- ② Rising chaos in traffic & health facilities
- ③ Development of slums in cities - poor standards of living, unhygienic conditions & lack of planned development

- (4) Increasing poor-rich divide
- Ghettoisation (Gated communities)
 - Increasing crime, rapes etc.

Thus early suburbanisation has varied impacts & challenges & thus has to be resolved by proper planning using migration data, & creating job, education, health & employment opportunities at village & town level. Rurban Mission can be vital in this regard.

14. Various geographical and anthropogenic factors have rendered Brahmaputra Valley susceptible to recurrent floods. Discuss the causes and suggest suitable measures of mitigation.

विविध भौगोलिक एवं मानव जनित कारकों ने ब्रह्मपुत्र घाटी को बारम्बार बाढ़ों हेतु अति संवेदनशील बना दिया है। इसके कारणों की चर्चा कीजिए तथा शमन के उचित उपाय सुझाइए।

Every year North Eastern Part of India suffers from floods due to huge inflow of water in Brahmaputra river leading to huge human & infrastructure losses.

Causes of floods

Geographical factors

- ① Heavy rains in area due to Bay of Bengal stream of South west monsoon & Himalayas
- ② Topography of region increases water flow & sediments into river
- ③ Water from glacier from Tibet et. al.
- ④ Basin Topography of region & landslides

Anthropogenic factors

- ① Habitation on flood plains & wetlands
 - ② Creation of concrete roads & urbanisation hinders seepage of excess water into ground.
 - ③ Pollution & addition of solid waste chokes storm water drains etc. & causes dredging in rivers
 - ④ Mining activities etc. affects natural checks.
 - ⑤ Deforestation leading to soil erosion
- ∴ Suitable measures are desired to check the menace

Measures

- Timely dredging & desiltation of rivers
- Ban on construction in flood plains & wetlands → restoring the same.

- Creation of flood cushions, flood check walls, embankments etc.
- Massive afforestation to prevent soil erosion & landslides
- fence wiring of old rocks to prevent landslides etc.
- Ban on putting/dumping effluents in rivers
- Ban on pollution etc.
- Cleaning of storm water drains etc.

Thus multipronged approach with wide citizen participation is desired for tackling floods.

15. Give a brief account of Earth's heat budget. Also discuss how increasing concentration of carbon dioxide in Earth's atmosphere effects it.

पृथ्वी के ऊष्मा बजट का एक संक्षिप्त विवरण दीजिए। साथ ही चर्चा कीजिए कि पृथ्वी के वायुमंडल में कार्बन डाइऑक्साइड की निरंतर बढ़ रही सांद्रता इसे किस प्रकार प्रभावित करती है।

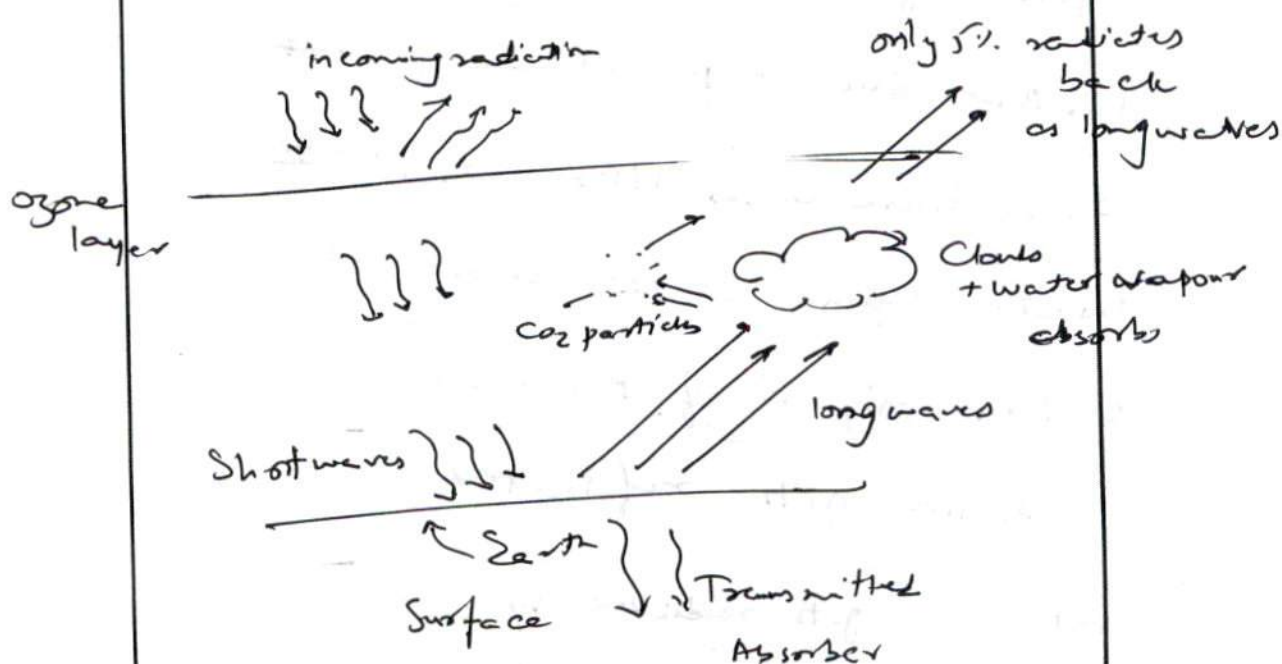
Earth's Heat Budget

Incoming insolation from ~~earth~~ sun get reflected by clouds & by ozone layer & thus only 50% reaches the earth surface which further gets absorbed & only ~~15~~ 15-20% gets reflected which gets trapped further due to prevalence of ~~gas~~ green house gases like ~~Carbonate~~ water vapour, Carbon dioxide etc. & thus only 5% of the incoming radiation gets reflected back

Short waves gets radiated by earth as long waves which gets trapped in atmosphere

Increasing concentration of Carbon dioxide due to anthropogenic activities affect earth surface

- Green house gas thus traps the insolation & causes heating thereby increasing radiation temperature & leading to melting of ice & global warming which impacts negatively to earth's atmosphere



16. Give an outline of the major geological events that have shaped the present drainage system of Peninsular India. Also, explain why peninsular rivers are unsuitable for navigation but facilitate hydroelectric power generation.

प्रायद्वीपीय भारत के वर्तमान अपवाह तंत्र को आकार प्रदान करने वाली प्रमुख भू-गर्भीय घटनाओं की एक रूपरेखा प्रस्तुत कीजिये। साथ ही स्पष्ट कीजिए कि ऐसा क्यों है कि प्रायद्वीपीय नदियां नौबहन के लिए अनुपयुक्त हैं लेकिन जलविद्युत उत्पादन को सुविधाजनक बनाती हैं।

Peninsular drainage pattern in India is characterised by non-perennial rivers, major rivers flowing from west to east & delta's at mouth of river.

Major geological events

- Creation of fiord basalt plains by reunion island hotspots (non-antecedent)
 - ↳ Hard rock → thus not navigable throughout region
- ~~of~~ Breaching of portion of western ghats → ~~the~~ tilt towards east leading to flow from west to east

- No glaciers & thus rely on rain water ~~for~~ → non-perennial.
- Huge siltation - leading to formation of deltas at mouth.

They are unsuitable for navigation because of ^① prevalence of hard rock magma & ^② presence of waterfalls which make them unnavigable.

- ③ Variability of water over months
- ④ lack of adequate canals etc.

However presence of hard rocks & varied topography supports hydroelectric projects & no seismic activity unlike Himalayan region also supports hydropower plants.

17. Elaborate with examples as to how government policies influence the location of industries. Also, mention the steps taken by the Government of India to stimulate industrial activity in backward regions.

उदाहरण सहित व्याख्या कीजिए कि किस प्रकार से सरकारी नीतियां औद्योगिक अवस्थिति को प्रभावित करती हैं। साथ ही, भारत सरकार द्वारा पिछड़े क्षेत्रों में औद्योगिक गतिविधियों को बढ़ावा देने हेतु उठाए गए कदमों का भी उल्लेख कीजिए।

Location of industries is influenced by Raw material availability, availability of Cheap labour, electricity, water, market etc. & as all above factors depends on government policies, thus location of industries depends too.

Influence of government policies on Industrial locations

- Tax holidays or Tax rebates
- Quick land clearances, environmental clearances
- Ease of doing business via. good infrastructure, land to port connectivity

- Autonomy in mining leases
- Open Acreage policy
- Low Regulatory sprawl / Cholesterol
- Eased labour issues - Retrenchment of workers etc.

All such policies impacts the location of industries & can be evidently seen in context of India as well.

Gujarat, Maharashtra, Andhra Pradesh leads due to proactive government ~~politics~~ policies as one of the major reasons.

Steps taken by Government to stimulate industries in backward regions →

- Tax rebates / incentives
- Cheaper rates lands & land acquisition & quick clearances

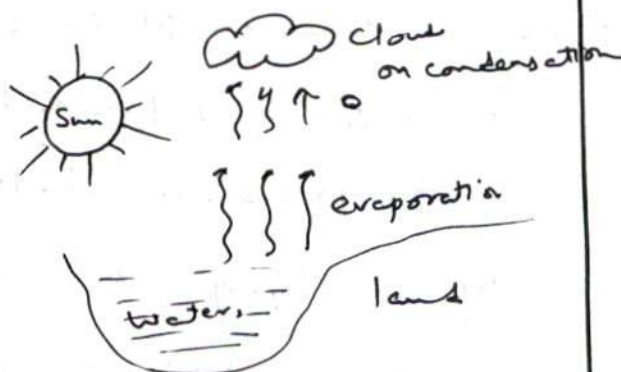
- Ease in labour & environmental laws
- Creation of District Mineral Foundation to tackle issues of workers etc.
- Policies like H.E.L.P / Open Acreage
- Special focus on North East
 - Creation of infrastructure & food processing industries in NE states by developing R&D centres & declaring Sikkim as organic state to promote organic farming.

Government policies are vital in reaping out real potential of Make in India programme & evidents the critical role of policies in location of industries

18. Explain, in brief, the process of cloud formation. Also, elucidate how clouds can help in weather forecasting.

संक्षेप में बादल बनने की प्रक्रिया की व्याख्या कीजिए। साथ ही स्पष्ट कीजिए कि मौसम के पूर्वानुमान में बादल किस प्रकार सहायता कर सकते हैं।

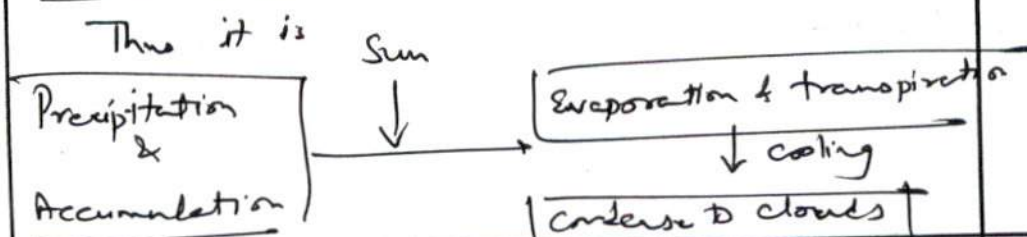
Cloud formation takes place by process of Precipitation, transpiration, Evaporation & Condensation



Process

Water accumulated in rivers & ponds & in plants etc ~~up~~ with sun's rays gets heated & evaporate or transpire which on reaching heights starts condensing leading to accumulation of water vapours into clouds

Thus it is



Cloud formation & their qualitative estimation can help in weather forecasting

① Using layers of clouds, - their shape, color etc. one can predict weather

- If the clouds are dark grey then they are rain-bearing clouds
↳ possibility of rain.
- if they are at ~~very~~ high level & white → Clear sky, no rain
- Cotton Shaped Clouds (Cumulus) clouds at low level when growing big at fast pace → chances of Thunderstorm in summer
- If rain bearing clouds are moving in horizontal direction in coastal areas → chances of cyclone

- if clouds are stationary but in excess & white - this will not rain but will be humid

Thus clouds can be used in qualitative estimation of weather & is thus very important component of weather forecasting.

19. The socio-economic and ecological consequences of soil degradation are far-reaching. Discuss. Suggest measures that can be taken to restore soil fertility and arrest soil degradation.

मृदा निम्नीकरण के सामाजिक-आर्थिक एवं पारिस्थितिक परिणाम दूरगामी प्रभाव डालने वाले होते हैं। चर्चा कीजिए। मृदा उर्वरता को पुनर्स्थापित करने एवं मृदा निम्नीकरण को रोकने हेतु किए जा सकने वाले उपाय सुझाइए।

Soil Degradation refers to soil erosion & loss of fertility of soil due to excessive farming, use of fertilisers & corrupt agricultural practices unsustainable in nature.

India suffers high from soil degradation & is a concern for national food security

Socio-economic consequences

→ Agrarian Distress - as crop yield decreases

→ leads to huge unemployment & migration of people.

→ Urban Migration issues - Ghettoisation etc.

↳ Increasing urban-rich poor divide

→ Feminisation of agriculture

- Impacts GDP of nation & macroeconomic indicators suffers instability
 - ↳ High inflation, rising food prices

Ecological Consequences

- Soil health degrades
- Turns land barren & fallow - Desertification of land
- Impacts biodiversity as dependent species faces threat of survival.
- Eutrophication of lakes & waterbodies

Measures to restore soil fertility

① Soil Health Card Scheme

- ↳ Advise fertilisers as per the requirement of land
- prevent ~~inadequate~~ excessive use of urea.
- rejuvenation of soil health via. Scientific methods

- ② Mixed Cropping - ~~to~~ farming legumes & Nitrogen fixation periodically
- ③ Organic farming
- ④ Use of drip irrigation & fertigation technique for limited use of fertilizers
- ⑤ Use of neem-coated urea
- ⑥ Agro-climatic farming & Agroforestry to reduce soil erosion
- ⑦ Connect farm to Research labs to promote scientific & sustainable agricultural practices.

Soil health is desired for ~~a~~ agriculture
good yield & attain objective of
"doubling farmers income by 2022"

20. Development of island territories requires a careful balancing of environmental and tribal concerns with exploitation of economic potential. Elaborating on the threats faced by island territories of India, comment on the recent measures proposed by the government regarding their development.

द्वीपीय क्षेत्रों के विकास हेतु संभावित आर्थिक क्षमताओं के दोहन के साथ ही पर्यावरणीय एवं जनजातीय चिंताओं के मध्य विवेकपूर्ण संतुलन की आवश्यकता है। भारत के द्वीपीय क्षेत्रों द्वारा सामना किए जाने वाले खतरों को विस्तार से बताते हुए, उनके विकास के संबंध में सरकार द्वारा हाल ही में प्रस्तावित उपायों पर टिप्पणी कीजिए।

Island territories of India - Andaman & Nicobar Islands & Lakshadweep are ~~marked~~ marked by

- High Biodiversity
- Huge economic potential - Deep sea ports
- Tourism
- Prevalence of Tribal populations (PVTG's) - Jarawa, Ong tribes etc.

Thus development in such areas is of huge concern as it has to balance between the above 3 criterion.

Threats faced by island territories

- ① Threat of extinction of tribes & bio diversity

due to

- Developmental activities
- lack of communication from external world. (Connectivity)
- prevalence or incidence of health epidemics

(2) Climate Change & Global warming

- Rising sea level - a cause of concern
- Adverse climate impacts flora & fauna & thus threaten endemic species

(3) Sea pollution & other polluting activities

↳ Coral Bleaching - Lakshadweep is a coral island

(4) Tsunami & Volcanic Activity

↳ 2006 Tsunami huge impact of A & N islands

Measures by Government of India

- ① Securing the interests of Tribals
by providing PVTG's status & special

schemes

- ② 2000 crore development plan for A&N islands for promoting economic activities by development of deep sea port
 - ③ Creation of 5 tourist beach destination - (Niti Aayog Document) by 2020 in Lakshadweep.
 - ④ INCOIS Hyderabad - Tsunami Early Warning System - to mitigate losses
 - ⑤ Paris Climate Accord, Kigali Agreement to prevent climate change
- Nehru's Tribad Parchsheet policy along with economic development & international collaboration for Climate Change are vital in this regard