

Samyak

An Institute For Civil Services

RAS - 23 MAINS TEST SERIES

सिद्धि - 10/A10

Time : 3 Hours

Maximum Marks : 200

पृथ्वी विज्ञान (भूगोल एवं भू-विज्ञान) (विश्व, भारत एवं राजस्थान)
Earth Science (Geography and Geology) (World, India and Rajasthan)

Paper - III (Unit-I)

Name :		MARKS	
Enroll. No.:	Part	Attempted Questions	Marks Obtained
Date of Birth :	Part - A	23	29
Medium : ENGLISH	Part - B	16	29 1/2
E-mail :	Part - C	7	36 1/2
Exam Date : 24 DEC 2023	Total	46	111
Inviligator's Signature :			
ECN:	RCN:	Hindi: NA	English: NA

अनुदेश (Instructions)

- परीक्षा शुरू होने से पहले पुस्तिका को जाँच लें।
Please check the booklet before commencement of the exam.
- दिये गये रिक्त स्थान में निर्देशित शब्द सीमा में उत्तर दें।
Write the answers according to the prescribed word limit, in the space given.
- अंक योजना प्रत्येक खंड के प्रारम्भ में दी गई है।
The marking scheme is given at the start of every section.
- परीक्षा के पश्चात् उत्तर पुस्तिका हॉल अधीक्षक को सौंप दें।
Return the answer booklet to the hall superintendent after completing the paper.

	REVIEW PARAMETERS	SCALE			
		Good	Above Average	Average	Below Average
1.	DOES THE ANSWER ADDRESS THE DEMAND OF THE QUESTION?		✓		
a.	Answer Relevancy		✓		
b.	Answer Enrichment points like use of: · Key Terms/ Subject Vocabulary. Use of Commission/ report/ government publication/ judgements, etc. Association with the Current Affairs and use of examples to explain the concept and idea		✓		
2.	HOW WELL IS THE ANSWER PRESENTED?		✓		
a.	Structure - Intro, Body, Conclusion		✓		
b.	Presentation – Using Subheadings/ points/ highlighting/ flowcharts/ diagrams/ maps		✓		
c.	Language & Grammar		✓		
d.	Word limit		✓		

Detailed Comments / Feedback / Suggestions for Improvement
विस्तृत टिप्पणियाँ/फीडबैक/सुधार के लिए सुझाव :-

1. Practice regularly.
2. Focus on Hindi
3. All the best
4. Excellent answers.
5. hope you will get through
6. good luck
- 7.
- 8.
- 9.
- 10.
- 11.

Note : Answer the following questions in 15 words. Each question carries 2 marks.

नोट : निम्न प्रश्नों के उत्तर 15 शब्दों में दीजिए। प्रत्येक प्रश्न 2 अंक का है।

1. रैट होल माइनिंग क्या है?

What is Rat Hole Mining?

its illegal mining 1/2

Rat hole mining: Mining carried out by digging a small trench, which is specially prevalent in North eastern state Meghalaya for coal mining.

Supreme Court: - ordered to ban rat hole mining view it is unscientific and dangerous to human life.

give example of tunnel in mt
(Write above this line only)

2. 'गोलन हाइट्स' पर टिप्पणी लिखिए?

Write a comment on 'Golan Heights'?

Syria
Golan height
Israel 1/2

Golan height: it is the disputed territory between Israel and Syria. & illegally occupied by Israel during 6 days war of 1967. Israel and Syria both claims the territory of their own.

recently due to Israel & hamas conflict, it came into headline & catched news headlines.

3. राजस्थान में निम्न वर्षा के लिए उत्तरदायी प्रमुख कारणों को लिखिए-

Write main reasons responsible for low rainfall in Rajasthan-

Himalay branch 2

(i) South west monsoon: blows parallel to the Aravali mountain.

(ii) low water content of sub tropical westerly jet streams - only monsoon (low rainfall)

(iii) only Himalay branch of South west monsoon enters Rajasthan.

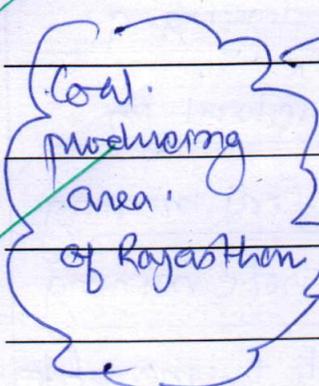
(iv) no orogenic relief in and semi arid region near the east side of the range.

Reasons for low rainfall in Rajasthan

4. राजस्थान में प्रमुख कोयला उत्पादक क्षेत्रों का नाम लिखिए-
Name the major coal producing areas in Rajasthan-

Palana
Wiral
Barsingher

Coal produced in order of Andamanam land Coal.



Arid plains:- Coal mainly found in arid plain near petroleum, natural gas, regions of Jaisalmer, Bikaner, Jodhpur & Bherwara

Semi arid plains:- Semi arid plains also contribute in coal production in Rajasthan territory

5. सेंडाई फ्रेमवर्क के अंतर्गत प्राथमिकता वाले चार क्षेत्र बतायें-
Name four priority areas under Sendai Framework-

Use as per area specific in basin or coal type

Sendai Framework (2015-2030) :- International Convention 1 1/2

adopted for disaster management on global & national level, India satisfied of Disaster risk reduction

- priority area
- Disaster mitigation
 - Disaster preparedness
 - Disaster management

(Write above this line only)

6. भ्रंशघाटी क्या है? इसके दो उदाहरण दीजिए-
What is a Rift valley? Give two examples of this-

due to plate tectonic 1 1/2

Rift valley :- Rift valley is the valley formed by rivers flowing on the rift like Narmada and Tapti rivers which is mostly found below sea level.

- example
- Narmada river rift valley
 - Tapti river rift valley

(Write above this line only)

7. गोखुर झील का निर्माण किस अवस्था में होता है? भारत की सबसे बड़ी गोखुर झील (oxbow lake) कौनसी है?
 In which stage Ox-bow Lake is formed? Which is the largest oxbow lake of India? *River*

ox bow lake - It is formed by tidal activities and river flowing activities, when large deposits

deposited on the mouth of water dispersion outlet that subsequently it closed or partially closed called ox-bow lake.
 longest oxbow lake → chilika lake (Odisha) pulikat lake (Andhra Pradesh)

(Write above this line only)

8. फ्लाई ऐश (Fly Ash) क्या है? इसकी उपयोगिता बतायें-
 What is fly ash? Explain its usefulness-

Fly ash :- particulate matter of 2.5 mm and particulate matter of 10 mm with carbon content dispersed out of the construction, industrial and other activities.

Usefulness → formation of bricks
 → used for construction in freestanding
 → used for construction of roads

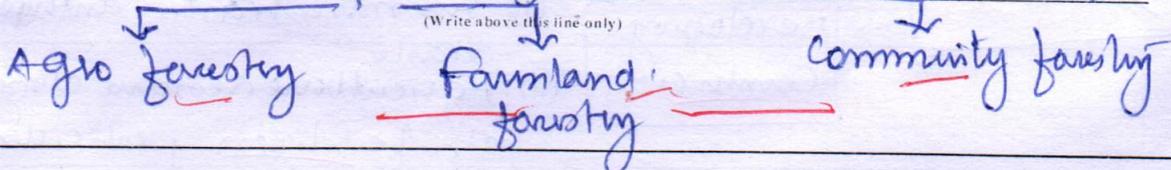
(Write above this line only)

9. 'सामाजिक वानिकी' की संकल्पना बतायें तथा प्रमुख प्रकारों को स्पष्ट करें-
 Explain the concept of 'Social Forestry' and explain its main types.

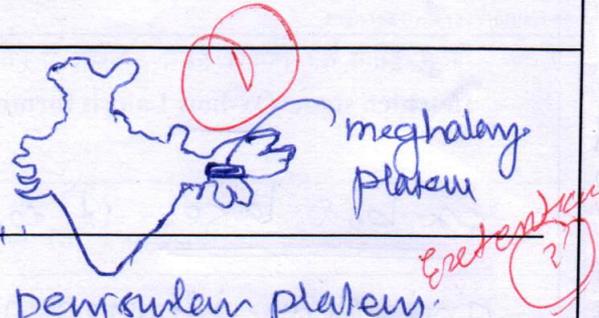
Social forestry → The concept introduced by Forest

Survey of India, in which the people's contribution prominently considered to grow forest

Types → Urban forestry :- The tree canopy developed on patches of urban area like, park, barmland
 → Rural forestry :- first developed in small areas



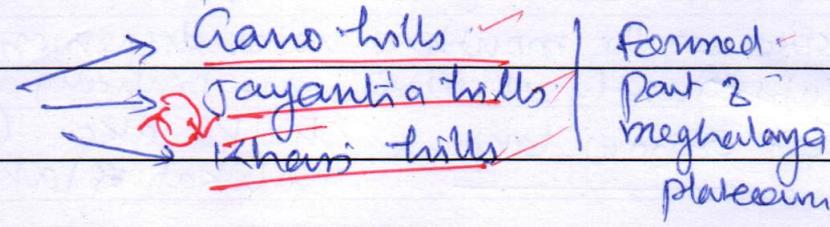
10. 'मेघालय का पठार' विभाजन बताइये-
Tell the division of 'Meghalaya Plateau'.



Meghalaya plateau :- meghalaya.

plateau is the sub part of peninsular plateau.

Region,
Division



(Write above this line only)

11. बॉन चैलेंज
Bonn Challenge

Germany - desertification

Bonn Challenge :- is the 1st agreement adopted during COP-15 of United Nation Framework Convention on climate change.

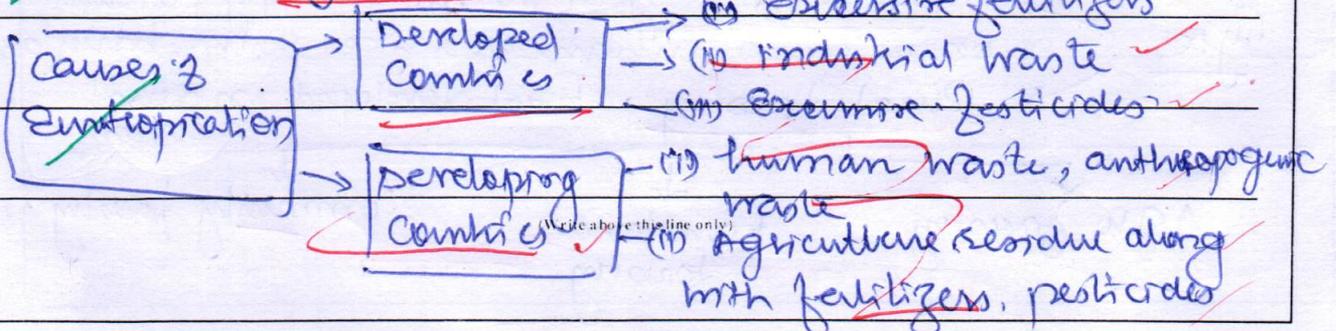
for Biological diversity as convention on Biological diversity.

Forestry plantations - land degradation

(Write above this line only)

12. 'विश्व के लगभग 10% महासागर अब मृत क्षेत्र हैं।' विकसित एवं विकासशील देशों में यूट्रोफिकेशन के प्रमुख कारणों को व्यक्त करें-
'About 10% of the world's oceans are now dead zones.' Express the main causes of eutrophication in developed and developing countries-

10% oceans are now dead zones because of accumulation of contents by fertilizers, industrial waste & other toxic material by means of eutrophication.



13. ISRO की रिपोर्ट में "दिल्ली, गुजरात और राजस्थान की 50% से अधिक भूमि क्षरण" की स्थिति प्रकट की गई है। इस दिशा में भारत सरकार के प्रयास बतायें-
 ISRO's report has revealed the situation of "more than 50% land degradation in Delhi, Gujarat and Rajasthan". Explain the efforts of the Government of India in this direction-

- (i) launched of Soil health card.
 - (ii) Zero Budget natural farming of subhas pattern by Joramrit, Bejarmrit, etc
 - (iii) National mission for organic farming
 - (iv) Incentives for organic farming
 - (v) Conservation of land by → mulching, tillage
 - (vi) Avoid or less use of fertilizers → use of gypsum, & phosphate
- Green water project*

14. किशन गंगा जल विद्युत परियोजना
 Kishan Ganga Hydroelectric Project

Kishan Ganga hydroelectric project :- it is proposed to be constructed on Chenab river, along with Rattle hydroelectric project. *Kishan Ganga gives water canal project linked to Jhelum*

→ opposed by Pakistan as violation of Indus water treaty but India issued notice under Article IX of Indus water treaty to serve the treaty as Pakistan violated the dispute resolution clause of treaty

15. 'हार्ट ऑफ नियोलिथिक ऑर्कनी'
 'Heart of Neolithic Orkney'

- Neolithic
 - Mesolithic
 - Chalcolithic
 - Bronze Age
 - Iron Age
- Scarboree, Rosoy, etc*

16. राफा क्रॉसिंग
Rafa Crossing

Connecting the gaza to Egypt

Rafa crossing is a passage way in Atlantic

ocean to reach mediterranean sea.

It is in the news because of Israel &

human conflict

(Write above this line only)

17. अशोधित जन्म दर से क्या अभिप्राय है? वर्तमान में भारत की CBR बतायें-
What is meant by crude birth rate? Explain the present situation of India-

Crude Birth rate :- It is defined as the

number of children born per lakh of population

is called crude birth rate

present situation :- Crude birth rate is 18/lakh.

according to census 2011

(Write above this line only)

18. भारत में प्रमुख लौह अयस्क उत्पादन क्षेत्र बतायें-
Name the major iron ore production areas in India-

include Rajasthan too

Major iron ore production areas

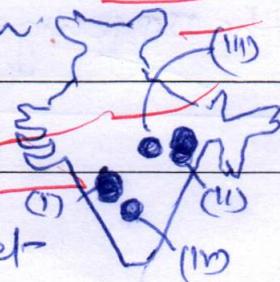
(i) Maharashtra - Coa. Belt :- It is highly productive region. Iron ore.

(ii) Orissa - Jharsud Belt :- In Orissa the Orissa & adjoining one

(iii) Durg - Bastar - Chhappur Belt :- Chhattisgarh mineral rich region

(iv) Bailly - Chhappur - Chh mangrove - Tumkur Belt

- Orissa, Karnataka & Andhra Pradesh



(Write above this line only)

19. जिंस
Zings

(Write above this line only)

20. मिश्टी योजना (MISHTI) के उद्देश्य बतायें-
Explain the objectives of Mishti Yojana (MISHTI)-

Mangrove initiative for school children Habitats as intellectual income

MISHTI :- Scheme launched in Budget 2023-2024 by

government of India for mangrove Conservation & growth
→ increase awareness among people about importance of mangrove forest

Objective of the Scheme

(i) Conservation, protection & propagation of mangrove forest

(ii) Encourage peoples participation in mangrove conservation & development

(Write above this line only)

21. क्या राजस्थान में जनांकीय लाभांश की स्थिति मानी जा सकती है?
Can Rajasthan be considered in a situation of demographic dividend?

①

Yes Rajasthan can be considered as in the situation of demographic dividend

What is it? 15-65 Jam.

→ According to census 2011 - major chunk of young population is available to govt can

harness their potential to reap the benefit of dividend

(Write above this line only)

also number the present scenario

22. 'सिर सांटे रूख रहे, तो भी सस्तो जाण' की धारणा से किया गया खेजड़ली आंदोलन की प्रासंगिकता बतायें-
 Explain the relevance of the Khejadli movement which was carried out with the concept of 'Sir Sante Rukh Rahe To Bhi Sasto Jaan'.

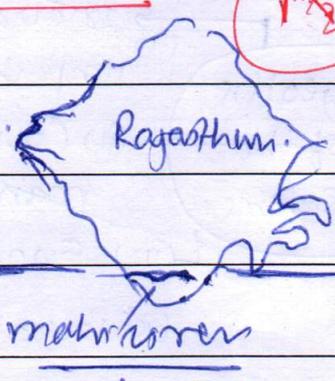
Relevance	(i) Concept of <u>'Service before self'</u> : <u>Conserve trees</u> (b/2)
Context of Sir Sante	at the <u>cost of life</u> (ii) <u>Sparks to other movement for conservation of trees</u> → <u>Chikpo, Apsko movement</u>
Rukh Rahe to Bhi Sasto Jaan	(iii) <u>Amrita devi sacrificed her life to save trees</u> and <u>govt of Rajasthan recognized</u> and started " <u>Amrita devi conservation</u>

23. माही नदी तंत्र से संबंधित बांध परियोजनायें बतायें-
 Tell the dam projects related to Mahi river system-

(Write above this line only)
 Bishnoi community movement memory
 Amrita devi now, global, national level also fight for
 climate change & increasing the cover

Mahi :- originates from mehand hill & river of south Rajasthan (1/2)

- Dam projects
- (i) Mahi Bajar Sagar Dam
 - (ii) Gandhi Sagar dam
 - (iii) Sardar Sarovar dam
 - (iv) Kangdi / Kadana dam PJ

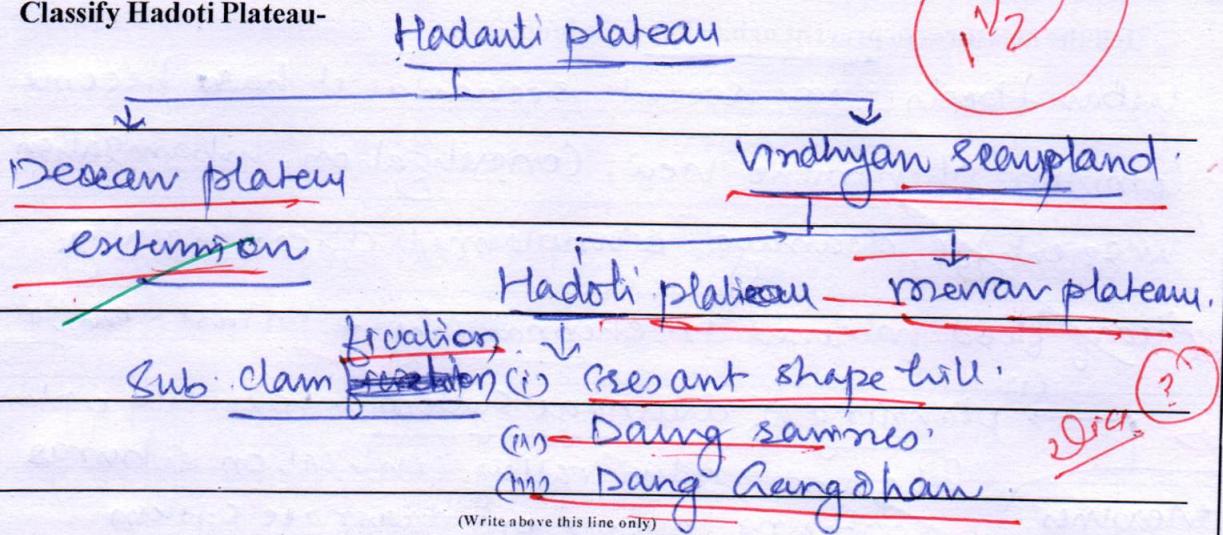


24. चौक/चौका प्रणाली के लाभ बताइयें-
 Explain the benefits of Chowk/Chauka system-

(Write above this line only)
 Som-Kamla Projct of canal
 Amby
 Kadana Buck boats etc

N/A

25. हाड़ौती के पठार का वर्गीकरण करें-
Classify Hadoti Plateau-



Note : Answer the following questions in 50 words. Each question carries 5 marks.

नोट : निम्न प्रश्नों के उत्तर 50 शब्दों में दीजिए। प्रत्येक प्रश्न 5 अंक का है।

1. इण्डियन ओशन डायपोल (IOD) का दक्षिणी पश्चिमी मानसून पर प्रभाव बताइए।
Explain the effect of Indian Ocean Dipole (IOD) on the south-west monsoon.

Indian ocean dipole :- It is the phenomena of temperature difference between western Indian Ocean and Eastern Indian Ocean.

positive Indian ocean Dipole :- Western Indian Ocean is warmer than Eastern Indian Ocean.
 intense rain *Rain more than usual*

3

negative Indian ocean dipole :- Eastern Indian Ocean is warmer than western Indian Ocean.
 -drought

Impact on S-W monsoon

positive impact :- When Indian Ocean dipole is positive, it attracts S-W monsoon more and more rainfall occurs.

negative impact :- When Indian Ocean dipole is negative, it does not attract and normal S-W monsoon rainfall occurs.

In conclusion - Indian Ocean dipole having positive impact on else remained neutral.

2. भारत में शहरी बाढ़ को रोकने के उपाय बताइए।

Tell the measures to prevent urban floods in India.

Urban floods: - recent scenario. it has become common phenomena view, concretization, urbanization, unscientific drainage, unplanned cities. recently

heavy flood witnessed in Chennai city & in last year Jaypuri city

3 1/2
Spoon
like
cities
like
cities

(1) planning of drainage system: - when city is planned like and indus valley civilization & hangs soothing impact on drainage system.

(ii) Augmented & strengthened municipal worker for cleaning of drains before rainy season.

(iii) Avoid concretization on open, streets & parks area to percolate water.

(iv) prepare percolation system, water syringes.

(v) water harvesting system,
(Write above this line only)

3. ज्वारनदमुख पारितंत्र से आप क्या समझते हैं? ज्वारनदमुख पारितंत्र की समस्याओं का उल्लेख करें?

What do you understand by estuarine ecosystem? Mention the problems of estuaries ecosystem?

Estuarine ecosystem: - when seas flow in the river, usually

then form estuary and the subsequent ecosystem is called estuarine ecosystem.

3
Bio
diversity
Fishing
Tourism
over
board

Problems of estuarine ecosystem: - western what errors form estuaries

(i) The fertile soil drainage into sea.

(ii) They do not form fertile soil for agriculture

(iii) not suitable for agriculture

(iv) harmful for biodiversity and ecosystem.

(v) Less population density

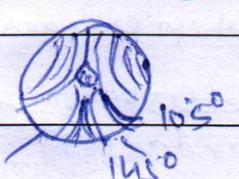
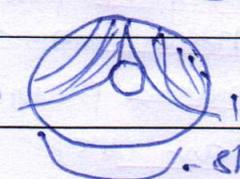
(vi) more alkaline soil found.

(vii) non navigable,
(viii) form marshy land.

(Write above this line only)

4. P-waves एवं S-waves में अन्तर लिखिए।
Write the difference between P-waves and S-waves.

Describe what it related to

P-wave	S-wave
(i) Primary wave.	(i) Secondary wave.
(ii) part of ground wave.	(ii) part of ground wave.
(iii) Travel in solid, liquid & gases medium.	(iii) Travel in solid medium only.
(iv) Travel parallel to ground.	(iv) Travel vertical to ground.
(v) First to arrive on ground.	(v) Arrive after P-wave.
(vi) Less shadow zone: 105° to 145°	(vi) more shadow zones: 145° to 180°
 <p style="color: red;">Shallow zone 105° to 145°</p>	 <p style="color: red;">Deep shadow zone 145° to 180°</p>

(Write above this line only)

5. भारत में नाभिकीय या परमाणु ऊर्जा उत्पादन में सहायक प्रमुख खनिज पदार्थों के वितरण पर संक्षिप्त टिप्पणी लिखिए-
Take a brief note on the distribution of major raw materials helpful in nuclear or atomic energy production in India-

Nuclear and atomic energy production raw material such as uranium, Thorium, plutonium distribution in India

- Monozite Kerala etc
- (i) Rajasthan uranium belt:
 - (1) Umsa mines
 - (ii) Rarsla mine - Sikar
 - (iii) Khandela hill mines
 - (ii) Ladhak. Belt of uranium storage: recently discovered in Ladhakh, the storage of uranium.
 - (iii) South belt: little uranium production in Karnataka and Andhra Pradesh.

+ thorium

(Write above this line only)

6. पश्चिमी तटीय मैदान और पूर्वी तटीय मैदान की तुलना कीजिए।
Compare the western coastal plain and the eastern coastal plain.

Western coastal plains	Eastern coastal plains
(i) narrow plain	(i) wide plain
(ii) River form Estuary	(ii) Rivers form delta
(iii) heavy rainfall	(iii) comparatively less rainfall
(iv) Extends on Gujarat to Kanyakumari	(iv) extension from Suramsethka to Kanyakumari
(v) Rivers - Narmada, Tapi	(v) Rivers - Mahanadi, Godavari, Krishna, Kaveri
(vi) Fertile plains - which are	(vi) less fertile
(vii) Rainfall - S-W monsoon	(vii) Rainfall - N-E monsoon
Sub parts	
<p>steep thin or Karels ports</p> <p>Gujarat plain</p> <p>Kutch plain</p> <p>Kathiyawar plain</p> <p>Konkan plain</p> <p>Kannada plain</p> <p>Malabar coast</p>	<p>Uttar plain</p> <p>Northern circars</p> <p>Malabar coast</p> <p>Coromandel coast</p>

7. कच्छ/मैंग्रोव वनस्पति का महत्व व चुनौतियां बतायें-
Explain the importance and challenges of Kutch/Mangrove vegetation-

Kutch/mangrove vegetation: in the area of Saurashtra Kutch and Bay of Kambhal-

Importance

- Navigation of Sir Creek remains intact
- if prevents coastal erosion.
- maintain stability of port area, Kandla port
- strategic importance: as hostile neighbour Pakistan can use marshy land.
- maintain ecosystem & Biodiversity

Challenges

- Disputed area of Sir Creek with Pakistan as Pakistan does not agree with Thattay principle of PCA/UNCLOS
- marshy land not demarcated properly
- exploitation due to industrialization in Gujarat
- provide safe haven to terrestrial as it is dense in nature

8. भारत के संदर्भ में जलोढ़ मिट्टी का संक्षिप्त विवरण दीजिए-
Give a brief description of alluvial soil in the context of India-

Alluvial soil :- Alluvial soil mostly found in the river catchment area like drainage basins.

(i) Fertile soil :- Alluvial soil is fertile in nature.

(ii) lack of :- nitrogen, phosphate & humus

(iii) different :- of potash,

(iv) moderate water retention capacity

(v) Extensive in India :- Ganga, plains,

Beahmaputra plains, Delta region & Ganahand
Godavari, Krishna, & Kaveri

(Write above this line only)

9. पश्चिम एशिया की भू-राजनीतिक समस्या बताते हुए भारत पर इसके प्रभावों की समीक्षा कीजिए-
Explaining the geopolitical problem of West Asia, review its effects on India-

Geopolitical problems of West Asia :- (i) Sunni & Sunni
blocks conflict, (ii) Issue of Israel-palestine (iii) Issue of
Nagorno Karabakh region (iv) Issue of Golan, high, west
bank, Gaza strip, Jerusalem (v) Issue of Black Sea &

Armenia peninsula. (vi) Issue of strategic check points, piracy
→ (i) hampers energy security of India

(ii) Supply chain disruption
(iii) hampers trade and business with west Asia
(iv) frequent changes in foreign policy but remains
non alignment friendly
(v) Balancing countries involved in conflict i.e. Israel-palestine
the stable solution

(vi) it is positively impacted that Indian grain export
increased with defense deals

2/2
Extensive
INSTC
CBPO
IMEC
etc

10. 'उष्ण कटिबंधीय पतझड़/पर्णपाती वन' का वर्गीकरण कीजिए-
Classify 'Tropical deciduous/deciduous forest'

Tropical deciduous forest :- Tropical deciduous forest divided into two sub categories

(1) Tropical dry deciduous forest :- Tropical dry deciduous forest, drops their leaves in autumn, not very dense, found in Aravalli, semi arid region of Rajasthan, Peninsular, and plain region.

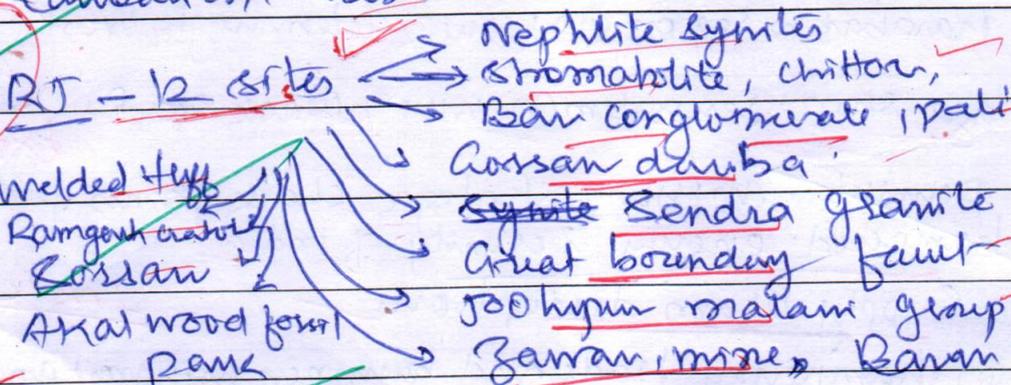
AGN
NE
specific
that
other
states

(2) Tropical moist deciduous forest :- moist deciduous forest found in peninsular Eastern Rajasthan, dense, & they do not drop their leaves

(Write above this line only)

11. भू-धरोहर स्थल की अवधारणा स्पष्ट कीजिए तथा राजस्थान में इसकी संभाव्यता पर प्रकाश डालिये-
Explain the concept of geo-heritage site and throw light on its potential in Rajasthan.

Geo heritage site :- sites have importance for education, research, conservation, & preservation.



potential in Rajasthan → Rajasthan has potential.

great effort → Jaypur heritage site :- has it encompass UNESCO sites, city as heritage.

(Write above this line only)
(1) Udaipur & Ajmer :- has many perspective to be recognized as Geo heritage

12. IGNP की पेयजल परियोजनाएं बतायें-
Tell the drinking water projects of IGNP-

Indira Gandhi Nahar Project - origin from Beas river, Bhakra, Nagar dam - & it provides Rajasthan as sources of irrigation & drinking water

2 1/2

Drinking water project :-

(i) Sohmukh Nahar Project : Drinking water to Chum, Rajgarh, Sohmukh, Bhadra

(ii) Chowhay Kumbharan lift canal

(iii) Barkal Surcha fan breaker

Mountains all same height
minerals and lifts

(Write above this line only)

13. राजस्थान में डॉ. व्लादिमिर कोपेन द्वारा 'जलवायु प्रदेश सीमांकन' का वर्णन करें तथा यह भी स्पष्ट करें कि कोपेन सूत्र ऊंचे भागों के लिये अनुपयुक्त क्यों है?
Describe the 'climatic region demarcation' by Dr. Vladimir Köppen in Rajasthan and also explain why Köppen's formula is unsuitable for higher parts?

Climatic Classification by Köppen

2 1/2

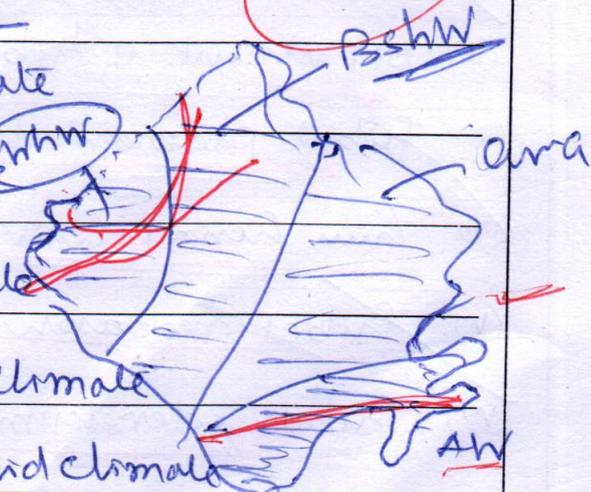
(i) Aw :- ^{very} Tropical humid climate

Pratapgarh, Jhalra, Bundi, Kota, Bhikhar, dhyanu, Banswara

(ii) Aw :- Tropical humid climate

(iii) BWhw :- Tropical Arid climate

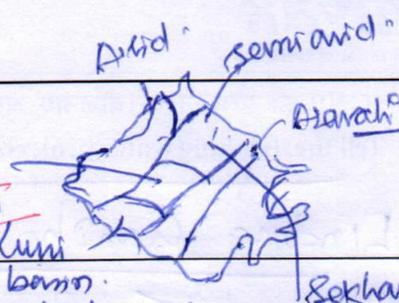
(iv) Bshw - Tropical semi arid climate



→ unsuitable for higher parts :- E shows only polar region & mountain vegetation found on other polar mountains also but E demarcates only of the low & high summer

(Write above this line only)

14. नागौर उच्च भूमि की विशेषताओं का संक्षिप्त वर्णन कीजिए-
Briefly describe the characteristics of Nagaur highland-



Nagaur highland is characteristic

(i) part of western plain / ~~desert~~ semi arid desert in semi arid region between 25° isohyetal line to 50° isohyetal line Nagaur highland lies north of Duni Basin.

3 1/2

Saline lakes

448 sum

Rel

(ii) hump belt / Kubad patti : hump belt is the prominent feature of Nagaur highland, the rocky region visible

now erosional feature Sekharoli and Duni basin area

(iii) Region :- Nagaur distt and associated districts

(iv) sandwiched between Duni basin & Sekharoli plain

(v) it lies between 25° isohyetal & 50° isohyetal line

(vi) west of Aravali range

(vii) east of Arid region (Write above this line only) (viii) part of Thar desert

15. राजस्थान में जनजातीय विकास हेतु प्रमुख संस्थाएँ-
Major institutions for tribal development in Rajasthan-

Major institution of tribal development :-

(i) Department of tribal affairs

(ii) Tribal pramanshakti committee of Rajasthan

(iii) Cum honoris cum institute for tribal welfare

(iv) Tribal research institute, Udaipur

(v) Tribal development Board

(vi)

16. राजस्थान में सौर ऊर्जा उत्पादन की अनुकूल संभावनायें बतायें एवं इस दिशा में राज्य की प्रगति का विवरण प्रस्तुत करें-

Explain the favorable possibilities of solar energy production in Rajasthan and present the details of the state's progress in this direction.

3

Favorable possibilities of solar energy

Prevalence of Sunshine :- 325 day out of year

(i) Low Rainfall :- It makes it more favorable

(ii) Richness of Sunshine 507 kWh/cg

(iii) Clean sky and dust free environment

(iv) Availability of land / Barren land

(v) Favorable policies - RS govt solar policy 2019

formulated solar policy - 2019

Projects run on PPP model also

Details of present progress

1st among India in solar power generation

solar plants

(i) Bhadla solar plant, Jodhpur

(ii) Fatehgarh solar plant

(iii) Mukh solar plant

(iv) Phalodi, Pokhran

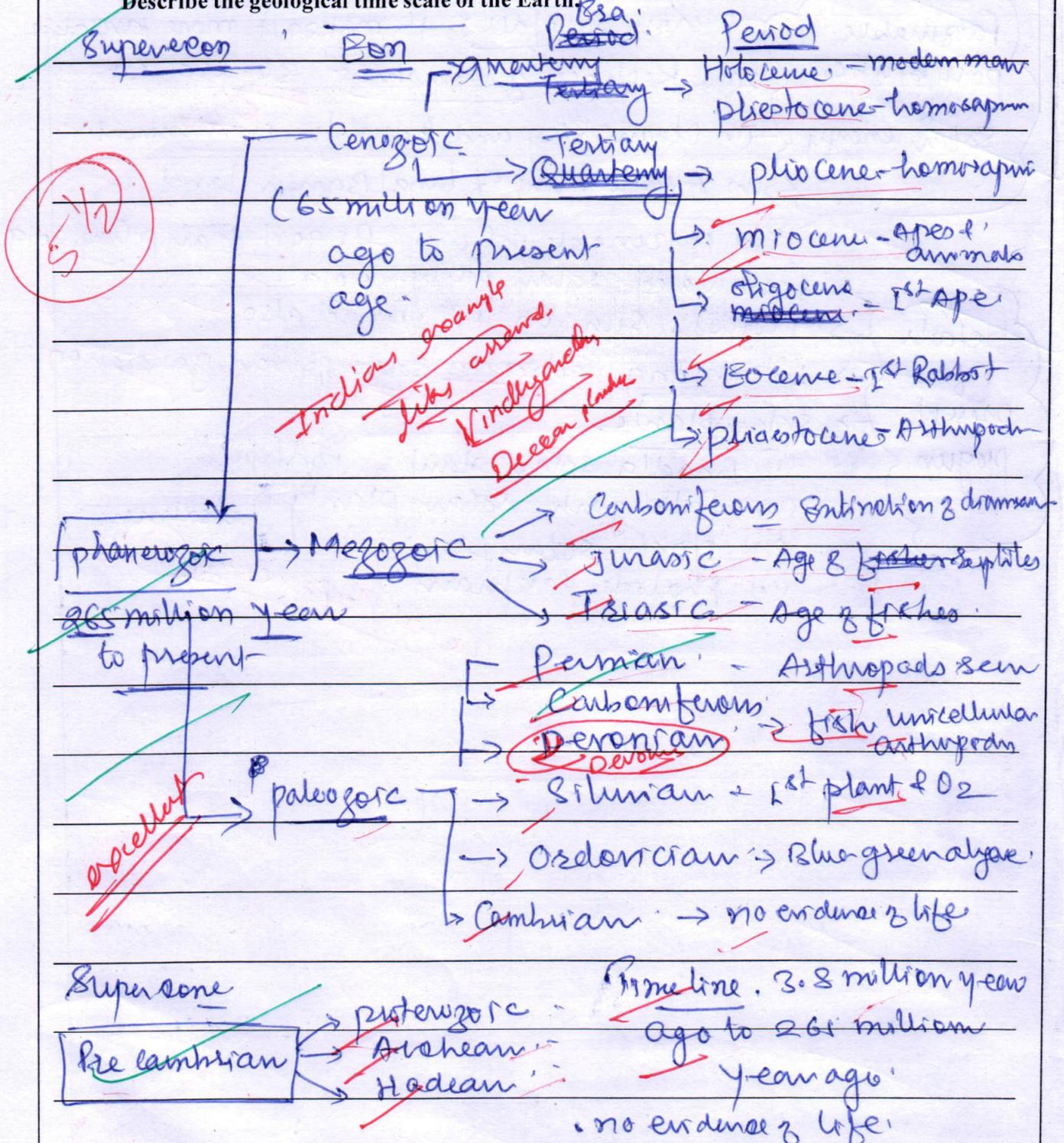
Jaisalmer

Total Capacity 2

Note : Answer the following questions in 100 words. Each question carries 10 marks.

नोट : निम्न प्रश्नों के उत्तर 100 शब्दों में दीजिए। प्रत्येक प्रश्न 10 अंक का है।

1. पृथ्वी के भू-वैज्ञानिक समय मापक्रम का विवरण दीजिये-
Describe the geological time scale of the Earth.



in conclusion:- Geological time scale evolved since centuries and arrived at the consensus of modern world and currently the holocene period is in progress.

2. गंगा के मैदान पर विस्तृत चर्चा करें-
Discuss in detail on the Ganga plain-

Ganga plain → the plain formed by the river Ganga & its tributaries. Ganga originated from the Gangotri glaciers from Uttarakhand & enters the plain at Hardwar.

Ganga plains details:

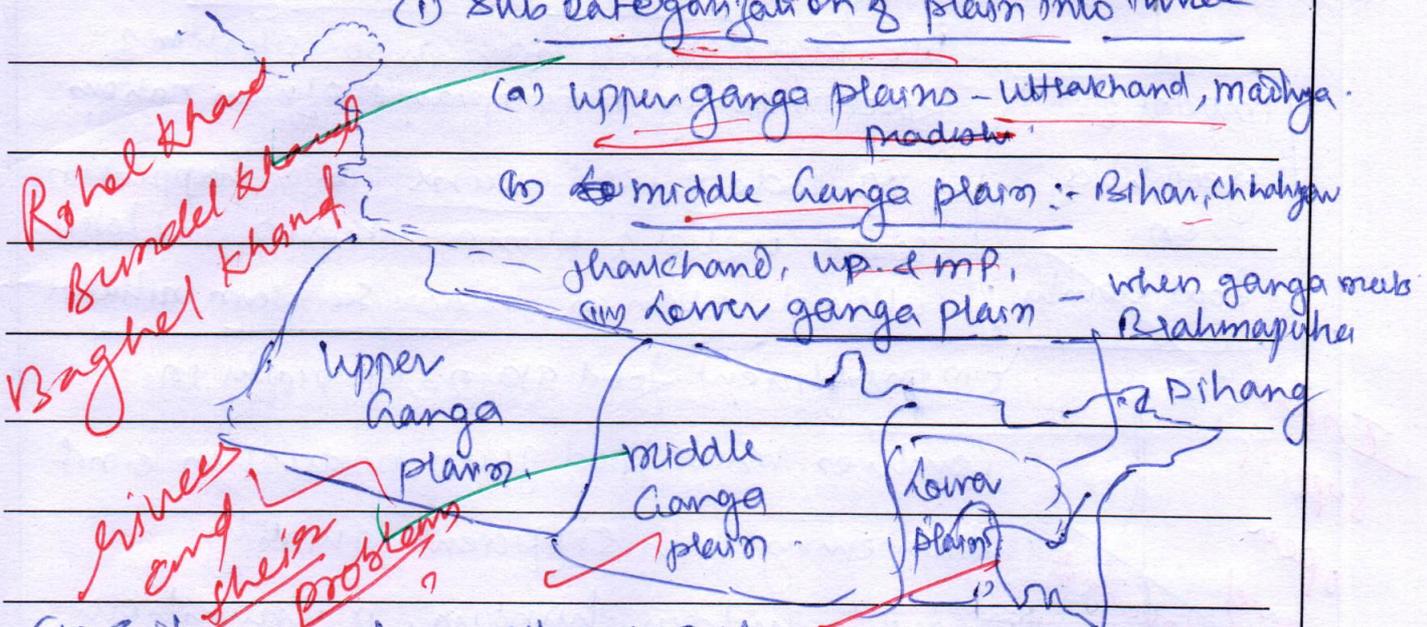
5/12

(1) Sub categorization of plain into three

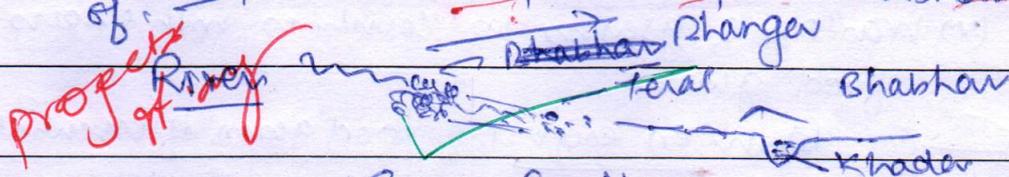
(a) Upper Ganga plains - Uttarakhand, Madhya Pradesh

(b) Middle Ganga plain :- Bihar, Chhattisgarh

Jharkhand, UP & MP, Lower Ganga plain - when Ganga meets Brahmaputra



(2) Soil: majority of Alluvial Soil with different characteristics of Bhabhan, Terai, Bhabhan, Khadar



(3) Major rivers :- Ganga, Gomti, Yamuna, Chambal, ~~Kosi~~, ~~Padma~~

Kushi, Gandak, Ahagra, Ken, Betwa etc

(4) highest population density on the Ganga plain

(5) highest productivity of wheat & rice

(6) longest plain among Indian plains

Pros OR
 Maintaining some
 disadvantages
 or cons

Ganga plain proved its potential & realized during green revolution and subsequently ensuring food security like problems over-saturated floods etc

3. खाद्य सुरक्षा पर भू-राजनीति का प्रभाव बताते हुए, वर्तमान समय में उत्पन्न हो रही खाद्य असुरक्षा की संभावना से निपटने के लिए भारत द्वारा किए जा सकने वाले उपाय बताइए।

Explaining the impact of geopolitics on food security, explain the measures that can be taken by India to deal with the possibility of food insecurity arising at present.

Geopolitics and food security :- Conflict over territory and

conflict between major countries like Russia &

Ukraine have badly affected the food security

of major countries. Start with Geo political system.

→ (i) Disruption of supply chain management
like Russia Ukraine war causes situation of food insecurity in European & African nations

Impact of
Geopolitics
on
Food security

(ii) No trade of food grains :- as happened in recent conflict of Russia - Ukraine but later alternate open as "Black Sea grain initiative"

(iii) Inefficient food grain, specially in

countries where food grain production is not happening with sufficient quantity

(iv) Lead to hidden hunger, malnutrition and stunting of people, stunting, wasting

(v) Wastage of grains in countries with excess food grains

Steps

taken

by India

to deal with

possibility of

food

insecurity

→ (i) Plan on export of food grain of essential need

→ (ii) Ensure strategic stockholding in sufficient way

(iii) Focus more on agriculture productivity

(iv) Diversify the food grain like use of millets

(v) Ensure proper storage and avoid wastage of food grain in FCI godowns

The global supply chain disrupted by geopolitical issues but India took firmly proactive measures to ensure food security

India support
open
and
movement
free
in sea
UNCLOS
Humanitarian Assistance

(Write above this line only)

4. "भारत के जनसांख्यिकी लाभांश ने देश की वृद्धि और विकास के संदर्भ में अवसर की खिड़की खोली है और इस खिड़की के बंद होने से पहले इसका लाभ उठा लेने की आवश्यकता है।" टिप्पणी करें-
 "India's demographic dividend has opened a window of opportunity in terms of growth and development of the country and there is a need to take advantage of this window before it closes."
 Comment-

Demographic dividend :- The young & working age people in the age group of 15 years to 59 years are in the majority of working force & called demographic dividend.

→ (i) Demographic dividend for next 25 years

Window of opportunity

→ (ii) Skilling the young people with skill development programme of India
 → (iii) Opportunities of public private partnership for industrial growth and development

→ (iv) Skilled manpower :- Right man for right job strategy for reaping benefits

→ (v) Reason of growth & development

Atmanirbhar Bharat
 Make in India programme
 Make in India programme
 PLI Scheme

→ (vi) As window period of 25 year only

Need to take advantage of this window

→ (vii) If not utilized, demographic dividend may lead to demographic disasters
 → (viii) Condition of Bham charr will arise
 → (ix) India vision @ 2047 as a developed nation will be derailed.

HDI Gender gap
 poor's BPL
 inequality etc

→ (x) Need to use to augment the Atmanirbhar Bharat vision complete in nature

→ (xi) India as production hub, major exporter & strengthen the production.

The vision of India's \$ three trillion dollar economy would be ensured by reaping the fruits of demographic dividend.

5. भारत की दीर्घकालिक 'निम्न उत्सर्जन विकास रणनीति' (LT-LEDS) पर प्रकाश डालिये-
 Throw light on India's long-term 'Low Emission Development Strategy' (LT-LEDS)-

Long term -
Low emission development strategy :- India is the major contributor in the field of climate change.

Strategy & initiatives :- at national level.

(a) Net zero target by 2070 :- during Cop-27 India proposed to net zero by 2070.

(b) Panchamrit - during Cop-27 → net zero by 2030
 → 50% energy from renewable sources
 → 45% energy reduction in carbon
 → 1 billion carbon sequestration terms
 → 45% energy from non fossil fuels

2030 - 50% non fossil fuel

(c) Mission life :- mission life for climate change.

(d) FAME scheme :- faster adoption of electric vehicles.

(e) National electronic energy mobility mission :-

(f) Solar energy initiative & solar plants
Global initiative :- RT major players - plants (Bhadli, Fatehgarh, Nokin, etc)

(g) Green credit initiative :- during Cop 28 at Dubai

(h) India does not agreed to methan pledge as India

is the major producer by means of Agriculture & Animal husbandry & it will take long course

Global initiative

(i) one some one world on green initiative

(ii) International Solar alliance

(iii) Mission life (iv) Agreed to - Loss & damage funds
 Loss and damage fund

(v) Agreement on Cop 28 → global stock take report
dubai declaration → tripling renewable energy

(vi) Renewable energy efficiency pledge
 in conclusion India is transition toward low emission by balancing internal factors

5/10

Ethical
 Binding
 Carbon
 Sink

Carbon
 Emission

6. राजस्थान खनिज सम्पदा की दृष्टि से सबसे समृद्ध राज्यों में से एक है तथ्यात्मक विवरण दीजिए तथा इस क्षेत्र से संबंधित समस्याओं को बिंदुवार स्पष्ट करें-

Rajasthan is one of the richest states in terms of mineral wealth. Give factual details and explain the problems related to this area point by point -

Rajasthan is called as ~~the~~ 'Museum of mineral wealth'

(i) Richness :- Rajasthan stands first in mineral richness with 81 types of minerals.

(ii) Leading producer :- of gypsum, calcite, ochre, phosphate, & selenite.

(iii) only producer of lead, zinc, silver.

(iv) Richness of metallic, non metallic, and hydrocarbons minerals. metallic - Asarali & rich in metallic min.
non metallic. Hadanti plateau rich in minerals

= petroleum, coal, natural gas :- in Aravalli & Semi arid, Thar desert of Rajasthan.

(v) Jewellery minerals :- Gold, platinum, silver, are predominantly available Gold - Dantlaj

(vi) Famous for marble & marble market :- Makrana marble is famous across the globe.

(vii) Building material fame :- asot is used in old & new parliament building

(viii) 2nd position in production petroleum, natural gas.

production after Bombay High. landlocked state, unable to export cost effectively

Problems :- unemployed many regions
Issue of tenancy, Thar with dunes & biodiversity of Asarali
Less biodiversity of Asarali - SC pul-Asarali
Illegal mining
Ban on mining & security of job

7. राजस्थान राज्य वन नीति 2023 का विजन बतायें तथा इस उद्देश्य की प्राप्ति हेतु अपनाये जाने वाले सिद्धान्तों की व्याख्या करें-
Explain the vision of Rajasthan State Forest Policy 2023 and explain the principles to be adopted to achieve this objective.

Rajasthan state forest policy 2023 :-

vision:- To grow forest cover on 33% of state geographical region to enhance green cover and enriching Biodiversity

Principles to be adopted to achieve this objective:-

(i) use 2 social forestry effectively:- to encourage peoples to participate to enhance green cover

(ii) Urban forestry:- grow trees on urban baner and public land to augment forest cover

(iii) Rural forestry:- grow tree on rural land

(iv) Agro forestry:- grow trees on boundary wall of farm

(v) Community forestry:- on private land, tree grown

(vi) Ahar-Ahar aushadi yojna:- compulsory & medicinal plant provided free of cost

(vii) Green Credit Scheme for forestry:-

(viii) Forestry at crematorium ground & Raushalao

(ix) effective utilization of CAMPA fund

(x) Compulsory forestation on mining lease

(xi) effective budget outlay for forest development

Rajasthan vision 2030 would bring more fruits to the peoples with more green carpets of ecosystem and would change the state of Rajasthan from Desert to Green Rajasthan (Habit Rajasthan)