

# Samyak

An Institute For Civil Services

## RAS - 23 MAINS TEST SERIES

सिद्धि - 12/A12

Time : 3 Hours

(Paper - II)

Maximum Marks : 200

सामान्य ज्ञान व सामान्य अध्ययन  
General Knowledge & General Studies

Name :		MARKS	
Enroll. No.:	Part	Att. Ques.	Marks Obtained
Date of Birth :	Unit- I	12	31½
Medium : English	Unit - II	13	29
E-mail :	Unit - III	13	31
Exam Date : 31-12-2023	Total	38	91½
Evaluator's Code	Reviewer's Code	Inviligator's Signature	Student's Signature

### 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.
- अभ्यर्थियों को उत्तर निर्धारित शब्द सीमा से अधिक नहीं लिखना चाहिए, इसका उल्लंघन करने पर अंक काटे जा सकते हैं।  
If there is a choice to attempt one question out of many and the candidate attempts more than one question then only.
- अभ्यर्थियों को निर्देशित किया जाता है कि किसी भी प्रश्न का उत्तर प्रश्नोत्तर पुस्तिका में निर्धारित स्थान पर ही लिखें। बॉर्डर लाईन से बाहर प्रत्युत्तर नहीं लिखें। बॉर्डर लाईन के बाहर लिखे गये उत्तर को जाँचा नहीं जायेगा।  
Candidates are directed to write answers only in the prescribed space of booklet. They should not write answer outside the border line. Answer written outside the border line will not be checked.



	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. Try to make answer more presentable
2. Underline keywords -
3. Work on answer's presentation, don't leave
4. Answer incomplete work on short answer question.
- 5.
6. Make flow charts, diagrams where required
7. Add more and more valuable points.
- 8.
- 9.
- 10.
- 11.



Unit - I  
(यूनिट - I)

(65 Marks)  
(65 अंक)

Part - A  
भाग - अ

Marks : 10  
अंक : 10

**Note :** Attempt all questions. Answer the following questions in 15 words each. Each Question carries 2 marks.

**नोट :** सभी प्रश्नों के उत्तर दें। निम्न प्रश्नों का उत्तर 15-15 शब्दों में दें। प्रत्येक प्रश्न के 2 अंक निर्धारित हैं।

1. परमशुभ की अवधारणा को स्पष्ट कीजिए-  
Explain the concept of supreme good.

This concept implies the highest form of  
deeds which yields desired results which  
are universalistic in nature & does not  
depend on other things. X (10)

(Write above this line only)

2. 'करुणा की थकान' पर टिप्पणी लिखिए-  
Comment on 'Compassion Fatigue'.

(Write above this line only)



3. 'नैतिक द्वंद्व' को परिभाषित कीजिए-  
Define 'Moral Dilemma'.

Moral dilemmas are contrasting situations  
of decision making in which person is  
in a situation which thing is to be  
Chosen.

Elaborate properly

(Write above this line only)

4. निजी संस्थानों में प्रबंधकों के समक्ष उत्पन्न होने वाले किन्हीं चार नैतिक चिंताओं को उल्लेखित कीजिए-  
Mention any four ethical concerns that arise before of the managers in private institutions.

- (1) policies of company are against societal needs
- (2) long-working hours vs overall health of employee
- (3) less salary vs more works
- (4) personal problems vs professional values

(Write above this line only)

5. महात्मा गांधी द्वारा प्रतिपादित 'सात पाप' उल्लेखित कीजिए-  
Mention the 'seven sins' propounded by Mahatma Gandhi.

- (1) politics without principle
- (2) Religion without sacrifice
- (3) Knowledge without character
- (4) commerce without morality
- (5) science without humanity
- (6) wealth without work
- (7) Power without service motive

(Write above this line only)



Part - B

(25 Marks)

भाग - ब

(25 अंक)

Note : Attempt all questions. Answer the following questions in 50 words each. Each Question carries 5 marks.

नोट : सभी प्रश्नों के उत्तर दें। निम्न प्रश्नों का उत्तर 50 शब्द में दें। प्रत्येक प्रश्न के 5 अंक निर्धारित हैं।

1. प्रशासन में सत्यनिष्ठा का महत्व उल्लेखित कीजिए-  
Mention the importance of integrity in administration.

25

Integrity is the continuous realization of personal & professional values in open, transparent manner. Importance -

standard  
Corruption

- (1) to prevent the bureaucrats from misusing powers
- (2) to serve the purpose public delivery & social justice
- (3) to prevent them receiving bribes & abide by the code of conduct
- (4) to cherish honesty; sympathy; compassion
- (5) to avoid the conflict of duties

Quality delivery of  
Citizen services

Hence, for participatory & effective administration it is necessary.

(Write above this line only)

2. महर्षि दयानंद सरस्वती के व्यक्तित्व पर टिप्पणी लिखिए-

Write comment on the personality of Maharishi Dayanand Saraswati.

born 12 Feb 1824.

Maharishi Dayanand Saraswati was a revivalist; scholar & social reformer of 19th CE. He belonged to Kathiawan.

Gyanani

He established 'Arya Samaj' (1875). He was supporter of widow remarriage; women education; opposed idolatry & rituals.

He lays emphasis on teachings of Vedas. All this reflects that he was a man of great wisdom;

2

religious tolerance & liberal thinking. He had very good persuasive skills & supporter of nationalism.

(Write above this line only)

book - Satyanki Prakesh Society is spirituality and nationalism



3. नैतिक व्यवस्था के संचालन हेतु परिणाम निरपेक्षवादी दार्शनिक कांट द्वारा प्रतिपादित आधारभूत मान्यताओं का उल्लेख कीजिए-

Mention the basic beliefs propounded by the absolutist philosopher Kant to result in the functioning of the moral system.

2

Immanuel Kant proposed Deontological ethics with following beliefs

(a) Duty for the duty sake - an act can be moral only when it is performed with duty motive.

To maintain facts morality?

(b) Universalistic application maxim of actions

(c) Autonomously chosen i.e. free from inclinations

Immortality of the soul

(d) Categorical Imperatives means heard the voice of conscience. (e) Laws of nature are not said to be moral. Hence, morality lies in those acts which are autonomously chosen with duty motive.

(Write above this line only)

4. परिणाम निरपेक्षवादी दार्शनिक कांट व भगवद्गीता में समानता-असमानता के बिन्दुओं को उल्लेखित कीजिए-  
Mention the points of similarity and dissimilarity between the absolutist philosopher Kant and the Bhagavad Gita.

2

Similarity - Both focuses on duty purpose.

Both relies on universal application of actions without biased by personal gains/inclinations.

Emphasis on intellectual and spiritual development of the individual

Dissimilarity - Gita ethics is religious in nature while Kant's is deontological.

Gita teaches path of devotion & Karma while Kant was duty abided.

Kant's present rigorous while Gita presents liberalism

(Write above this line only)



2

Sarvodaya  
Utilitarianism

5. "उपयोगितावाद, सर्वोदय की तुलना में संकीर्ण अवधारणा है।" टिप्पणी लिखिए  
"Utilitarianism is a narrower concept than Sarvodaya". Write Comment.

Utilitarianism focuses on maximum happiness of maximum number of people so it avoids the minority

maximise welfare.  
love.

consideration while devising policies. Whereas Sarvodaya principle of Gandhi Ji focuses 'universal upliftment

of all sections of society especially voices of & vulnerable sections should be heard in Sarvodaya.

human upliftment

It focuses on both majority as well as minority but utilitarianism is majority oriented.

Hence, Sarvodaya has wider connotations.

(Write above this line only)

which makes utilitarianism more capitalistic

Handwritten notes on the right margin, including "human upliftment", "love", and other faint scribbles.



Note : Attempt all questions. Answer the following questions in 100 words each. Each Question carries 10 marks.

नोट : सभी प्रश्नों के उत्तर दें। निम्न प्रश्नों का उत्तर 100 शब्दों में दें। प्रत्येक प्रश्न के 10 अंक निर्धारित हैं।

1. विवेकानन्द के दर्शन को स्पष्ट करते हुए समाज सुधार में उनके प्रयासों को उल्लेखित कीजिए-  
Explaining the philosophy of Vivekananda, mention his efforts in social reform.

Vivekananda was a Neo-Vedanti & social reformer  
who established 'Ramkrishna Mission' for social  
welfare. He focused on social works - charity.

His ideology is 'All religions are nothing but  
different paths to reach one God'. God/salvation  
can be achieved by service to people. He stated  
"Service to Humanity is service to God".

So people should focus on helping others;  
downtrodden so that they can achieve the  
salvation. He also focused on rational explanation  
of Vedanti philosophy. He was supporter of

Universal brotherhood & addressed 'World  
Religious Conference' as 'My dear brothers & sisters'.

He taught the lesson of Self-Awareness; self-  
reliance; self-confidence to the youth. His organization

'Ramkrishna Mission' best known for its social  
works - hospitals; schools; orphanage. Thus, his efforts  
mark the era of social-welfare works.

3

Accepted  
Practical  
Vedanta

Three  
basic  
beliefs  
Human  
nature  
is  
divine  
religion of  
the  
goal of  
life is  
realizing  
the  
divine  
power  
in  
the  
form  
of  
truth



2. निम्न पर टिप्पणी कीजिये-

Comment on the following-

1. गांधी जी का दर्शन और जैव विविधता संरक्षण/Gandhiji's philosophy and biodiversity conservation
2. सद्गुण/Virtue

5 1/2

(1) "Earth has enough for everyone need but not for everyone's greed" - this statement of Gandhiji reflects that man should not over utilize the resources or not destroy the biodiversity as every living creature has equal right to live on earth. We should fulfill our needs only because otherwise the balance of mother earth will destroy and hence can lead to collapse of human civilization.

new-vedanti philosophy

Influence by Jainism

Emphasis Hinduism

(2) Virtue - virtues are the ultimate good behavioural aspirations or dispositions.

permanent mental state of man.

They are of universal nature and help to guide our behaviour in different circumstances. They are expectations in behaviour to choose good or bad; right or wrong. Hence, they help to build strong characters.



3. केस स्टडी-

आपको शिक्षा का अधिकार अधिनियम के उल्लंघन के मामलों को देखने के लिए लोक सेवक के रूप में एक जिले में तैनात किया गया है। आपने देखा कि एक गरीब किसान ने अपनी बेटी को पांचवीं कक्षा की वार्षिक परीक्षा नहीं देने के लिए पीटा और उसे अपनी मोटरसाइकिल से बाँधकर परीक्षा हॉल में परीक्षा देने के लिए ले गया। शिक्षा के लिए बच्चों को शारीरिक दंड देना एक दंडनीय अपराध है जिसमें तीन महीने की जेल की सजा हो सकती है। जब आपने इसके बारे में पूछताछ की तो गरीब किसान ने बताया कि उसने अपनी बेटी के बेहतर भविष्य को सुनिश्चित करने के लिए ऐसा किया है क्योंकि वह नहीं चाहता कि उसके बच्चे उस गरीबी में रहें जिसमें वह रह रहा है। उनका यह भी कहना है कि उनकी आर्थिक स्थिति खराब है और अगर उन्हें जेल ले जाया गया तो उनके बच्चों को गंभीर कठिनाइयों का सामना करना पड़ेगा।

1. आपके पास उपलब्ध विकल्पों को लिखिए।
2. उपलब्ध विकल्पों का मूल्यांकन करें।

Case Study -

You have been posted to a district as a public servant to look into cases of violation of the Right to Education Act. You saw a poor farmer beat his daughter for not appearing in the fifth class annual examination and tied her to his motorcycle and took her to the examination hall to give the examination. Corporal punishment of children in the name of education is a punishable offense punishable with a jail term of up to three months. When you inquired about it, the poor farmer told that he did this to ensure a better future for his daughter because he did not want his children to live in the poverty in which he was living. He also says that his financial condition is bad and if he is taken to jail, his children will face serious difficulties.

1. Write down the options available to you.
2. Evaluate the available options.

Situation - Corporal punishments for studies

with good intension of future.

1. Options available

(a) Punish the father with imprisonment

(b) Release him by giving <sup>short</sup> warning

(c) Enquire the causes of not going to schools

Father is beating his child  
can be seen as a legal offense  
+ve -ve aspects

6/2



4.(a) As this option would worsen the financial state of his family moreover will deny the girl with education as well and sets bad faith in administration. So this should be avoided.

(b) Warning should be given to father as corporal punishment is punishable offence so that he might not repeat this in future because his ways are wrong but intentions to teach his daughter is good. This can be adopted.

(c) Make an enquiry about the girl's not going to school. There might be some reasons -  
 → fear of failure; school environment not conducive  
 So awareness about the importance of education should be raised. This should be followed.

Hence, awareness of friendly atmosphere for education should be created in village and also strict warning should be given to father.



Unit - II

(यूनिट - II)

Part - A

(10 Marks)

भाग - अ

(10 अंक)

Note : Attempt all questions. Answer the following questions in 15 words each. Each Question carries 2 marks.

नोट : सभी प्रश्नों के उत्तर दें। निम्न प्रश्नों का उत्तर 15-15 शब्दों में दें। प्रत्येक प्रश्न के 2 अंक निर्धारित हैं।

1. कैथोड किरणों के किन्हीं दो गुणों को उल्लेखित कीजिए।

Mention any two properties of cathode rays.

(1) It is negatively charged

(2) High speed moving ( $3 \times 10^8$  m/s)

(Write above this line only)

2. 'माइकोप्लाज्मा निमोनिया' टिप्पणी लिखिए-

Write comment on 'Mycoplasma Pneumonia'.

It is a viral disease generally, young

affecting children. It affects the

lungs of a person.

(Write above this line only)



3. वायुमण्डलीय नाइट्रोजन के यौगिकीकरण में सहायक किन्हीं चार मुक्त जीवी जीवाणुओं का नाम लिखिए-  
Write the names of any four free living bacteria that help in the fixation of atmospheric nitrogen.

Rhizobium

Plasmodium

Insect  
cancer

Azotobacter  
Azospirillum  
Clostridium

(Write above this line only)

4. भारत में आनुवांशिक संशोधित फसलों को विनियमित करने वाले प्रमुख निकायों का नाम लिखिए-  
Name the major bodies regulating genetically modified crops in India.

Department of Biotechnology (ICAR)

Genetic Engineering Approval Committee  
(Under Ministry of Climate Change, forest & environment)

Institutional Biosafety  
Committee

(Write above this line only)

5. 'विद्युत धारा का उष्मीय प्रभाव' के अनुप्रयोग लिखिए-  
Write the applications of 'Thermal effect of electric current'.

1) Electric heater

2) electric Iron

3) Immersion Rod

4) Incandescent bulb

1

work defraction

(Write above this line only)



Note : Attempt all questions. Answer the following questions in 50 words each. Each Question carries 5 marks.

नोट : सभी प्रश्नों के उत्तर दें। निम्न प्रश्नों का उत्तर 50 शब्दों में दें। प्रत्येक प्रश्न के 5 अंक निर्धारित हैं।

1. एकीकृत पीड़क प्रबंधन को परिभाषित करते हुए इसके उद्देश्यों को लिखिए-

Define Integrated Pests management and write its objectives.

21/2  
Integrated pests management is the practise of protecting agriculture crops from damages by adopting & using herbicides, pesticides, germicides, fungicides together as per the need of the situation.

Objectives - to reduce the post harvest losses

- to ensure the food security

- to reduce the overall cost

- to increase the income of farmers

- to increase the productivity

(Write above this line only)

2. 'डार्कनेट' की अवधारणा को स्पष्ट कीजिए व इसके उपयोग से जुड़ी प्रमुख चिंताओं को लिखिए-

Explain the concept of 'Darknet' and write the main concerns related to its use.

2  
Darknet refers to the network of websites over Internet which are hidden & are not publically viable. Here all illegal/ferands are done.

[Concern] → It is used for illicit purpose to harm, to steal or commit crimes.

Therefore, serious watchdog is required over its use to curb the cyber crimes.

(Write above this line only)

Reduce crop losses  
Keeping no. of pests below harmful  
Special software (TOR, I2P)  
Not accessible through common search engine (Google, Bing)



2 1/2

3. 'रोगाणुरोधी प्रतिरोध' के उन्मूलन के सन्दर्भ में किए गए वैश्विक व भारत के प्रयासों को लिखिए-  
Write the global and Indian efforts made in the context of eradication of 'antimicrobial resistance'.

Antimicrobial resistance is a situation in which  
over-doses of it create resistance in microbes  
over a time. Indian government is adopting AYUSH  
& naturopathy to boost immunity in humans.  
Moreover, discouraging the use of medicines for  
small illnesses. Globally also awareness is  
being raised about its serious implications  
through world health organisation.

are health  
is  
promoted  
by  
WHO

(Write above this line only)

4. 'धातु संक्षारण' को परिभाषित करते हुए संक्षारण को प्रभावित करने वाले कारकों पर संक्षिप्त टिप्पणी लिखिए-  
Define 'Metal Corrosion' and write a short note on the factors affecting corrosion.

'Metal corrosion' is defined as the deteriorating  
the properties of metal when it comes in  
contact with moisture & humidity. Ex.  
(Oxidation of metal is corrosion). Ex. Iron (Fe)  
converts into red (ferrous oxide)  $Fe_2O_3$ .

Factors affecting → Humidity & oxygen  
moisture are the  
prime factors responsible for corrosion. Exposure  
of a metal to these leads it deteriorate  
(corrosion).

presence of  
electrolyte

Reactivity  
of  
metals

(Write above this line only)



5. विज्ञान व प्रौद्योगिकी के क्षेत्र में 'सत्येन्द्र नाथ बोस' के योगदान पर टिप्पणी लिखिए-  
Write comment on the contribution of 'Satyendra Nath Bose' in the field of science and technology.

Satyendra Nath Bose, <sup>Jan 1, 1894, Kolkata</sup> was an astrophysicist.

His major contribution is the "Bose-Einstein Condensate" which is also known as 5<sup>th</sup> state

of matter. It can be formed at supercool temperature by matter having density  $1/100^{\text{th}}$  of air.

He did many research in molecular physics & states of matter.

<sup>Padma Vibhushan in the year 1954</sup>

(Write above this line only)

1/2

2

Planck's  
to provide  
in 1927



Part - C

(30 Marks)

भाग - स

(30 अंक)

Note : Attempt all questions. Answer the following questions in 100 words each. Each Question carries 10 marks.

नोट : सभी प्रश्नों के उत्तर दें। निम्न प्रश्नों का उत्तर 100-100 शब्दों में दें। प्रत्येक प्रश्न के 10 अंक निर्धारित हैं।

1. भारत में अंतरिक्ष क्षेत्र में निजी क्षेत्र को बढ़ावा देने के उद्देश्य से उठाये गये कदमों को उल्लेखित करते हुए निजी क्षेत्र की प्रमुख पहलों को लिखिए-

Mentioning the steps taken with the aim of promoting the private sector in the space sector in India, write the major initiatives of the private sector.

Announcement of 'New Space Policy' with a view to encourage private players in space sector in 2023.

4 1/2

New Space India Limited (NSIL) is a wing of ISRO working with private players so that they can help in boosting space sector.

space's contribution to the mission

Antares Corporation Limited is also marketing the space products. \* FDI is also allowed in space sector.

Production Linked Incentives (PLI) for manufacturing of space items.

Major Initiatives of private sector

Skymoot, a space startup, successfully launched first private rocket 'Vikram-S' of India.

Named after Vikram-Sarabhai.

Agnikul is the private rocket launching station by Agnidoot.

Govt on 24 June 2020 decided to

Moreover, parts of space crafts; satellites; rockets; semiconductors are manufactured by different private players.

private sector.



2. निम्न पर टिप्पणी लिखिए।

Write comment on the following.

1. प्रलय मिसाइल

2. लिथियम

3. 4D प्रिंटिंग

1. Pralay Missile

2. Lithium

3. 4D Printing

3

(1) Pralay missile - It is an indigenously developed ballistic missile. It is surface

to surface missile, developed by DRDO.

350 kg  
700 kg  
150-500 km range

(132281)

(2) Lithium - It is a metal which is used in

lithium-ion batteries of electric vehicles. Called as

halogen battery

white gold & placed 1st group of periodic table.

Recently, Salal district of Jammu found reserves

of it. It is placed in critical minerals.

hydroscopic material

4D printing



4

3. निम्न पर टिप्पणी लिखिए-

Write comment on the following:

1. अलैंगिक जनन की मुकुलन विधि/Budding method of asexual reproduction
2. विद्युत् चुम्बक एवं छड़ चुम्बक में अन्तर/Difference between electromagnet and bar magnet
3. चंद्रयान-3/Chandrayaan-3

(1) Budding refers to growth of buds which are <sup>into parents and</sup> able to reproduce over the surface of vegetation. <sup>then</sup>  
Yeast <sup>reproduce</sup> through budding. <sup>from</sup> <sup>the</sup> <sup>ma-</sup>  
 diagram

Electromagnet	Bar Magnet
(2) <u>They become magnet</u> <u>when electric current</u> <u>flows through them</u> <u>(temporary)</u>	→ <u>they are permanent</u> <u>in nature</u>
→ <u>very strong magnetic field</u>	→ <u>Comparatively less stronger</u>
<u>used in cranes; motors</u>	→ <u>used in toys</u>

(3) Chandrayaan<sup>3</sup> - It is India's third Lunar Mission.  
It made successful soft landing on south  
pole of moon. It is consisted of Lander -  
Vikram 4 Rover - Pragyan. It has life landed  
of 1 lunar day or 14 earth days. <sup>LVM-III</sup>  
 from Shriharikota - 14 July, 2023 -  
landed - 23 Aug, 2023



Unit - III  
(यूनिट - III)

Part - A  
भाग - अ

(10 Marks)  
(10 अंक)

Note : Attempt all questions. Answer the following questions in 15 words each. Each Question carries 2 marks.

नोट : सभी प्रश्नों के उत्तर दें। निम्न प्रश्नों का उत्तर 15-15 शब्दों में दें। प्रत्येक प्रश्न के 2 अंक निर्धारित हैं।

1. ज्वालामुखी द्वारा निर्मित किन्हीं चार आभ्यान्तरिक स्थलाकृतियों का नाम उल्लेखित कीजिए।  
Mention the names of any four Mediterranean landforms created by volcanoes.

(1) plateaus

(2) Mountains (Kilimanjaro)

(3) Mid-oceanic Ridges

(4) new earth crust

(Write above this line only)

2. भौगोलिक स्थिति के अनुसार पठारों का सौदाहरण वर्गीकरण लिखिए।  
Write classification of plateaus according to geographical location.

(1) Windised plateay (1)

(2) Volcanic plateay

(3) waterlogged plateay

(4) Inter montane plateay

(5) Aeolian plateay

(Write above this line only)

Piedmont  
Plateau  
Coastal  
Plateau



3. वर्ष 2011 की जनगणना के अनुसार क्रमशः राजस्थान के न्यूनतम शहरीकृत जिलों का नाम उल्लेखित कीजिए-  
Mention the names of the least urbanized districts of Rajasthan according to the census of 2011 respectively.

(1) Dungarpur (2) Barmer (3) Banswara  
(less than 8% urban population)

\* Banswara has least urban population in number.

(Write above this line only)

4. 'गोडावण हैचिंग सेन्टर' पर टिप्पणी लिखिए।  
Write comment on 'Godavan Hatching Centre'.

*Tripuranki collaboration -  
Govt, Wildlife  
Institute of  
India and  
Central  
Govt!*

Solapur, Baran is Gondavans hatching centre  
& conservation reserve also.

Sam; Jaisalmer is also Gondavans hatching  
Centre.

(Write above this line only)

5. "विश्व का प्रथम पाँच-देशीय बायोस्फीयर रिजर्व" पर टिप्पणी लिखिए।  
Write comment on "The World's First Five Country Biosphere Reserve".

(Write above this line only)



Note : Attempt all questions. Answer the following questions in 50 words each. Each Question carries 5 marks.

नोट : सभी प्रश्नों के उत्तर दें। निम्न प्रश्नों का उत्तर 50 शब्दों में दें। प्रत्येक प्रश्न के 5 अंक निर्धारित हैं।

1. भारत में वार्षिक वर्षा वितरण पर संक्षिप्त टिप्पणी लिखिए-

Write a short note on annual rainfall distribution in India.



■ >200cm  
 ▨ 100-200cm  
 □ 50-100cm  
 □ < 50cm  
 Rainfall distribution

3 1/2

125cm

Average rainfall in India is ~125 cm. Distribution

of rainfall on Amount of rainfall received-

① Areas of High Rainfall > 200cm -

Western ghats; Northeastern states; And

island

(2) Areas of Medium Rainfall (100-200cm) - Adjacent to western ghats

northern plains U.P; Bihar; Orissa

(3) Areas of Low Rainfall (50-100cm) - Jammu & Kashmir; M.P.

East Maharashtra; Chhattisgarh & Tamil

(4) Areas of Inadequate Rainfall < 50cm Telangana;

Karnataka

→ Western Rajasthan; some parts of Gujarat's Ladakh; some

area of peninsular India (Write above this line only)

2

2. "हिन्द महासागर में मालदीव की सामरिक स्थिति भारत को प्रभावित करती है।" टिप्पणी लिखिए-

"The strategic position of Maldives in the Indian Ocean affects India." Write comment-

Try to

make

diag

link

with

the

sub

of

the

strait

Maldives is a small island country which is

separated from Lakshadweep by 9° channel.

Hence, its strategic position in vicinity of India

makes it very important in Indian Ocean.

Moreover, trade through Indian oceans & curb

on the growing influence of china in Indian

Ocean region makes it as a Key Player for

security & strategical point of view.

(Write above this line only)

Strait of Hormuz

Strait of Malacca



3. राजस्थान में यूनेस्को की भू-पार्क एवं भू-धरोहर स्थल संकल्पना की सम्भावनाओं पर टिप्पणी लिखिए।  
 Write comment on the possibilities of UNESCO's geo-park and geo-heritage site concept in Rajasthan.

2 1/2

Geo-parks are geographical locations which are holistically develop & maintain with educational; scientific; cultural values.

following locations of Rajasthan has scope -

167 UNESCO Global Geoparks in the country

- (1) Romgarh crater
- (2) Zawar Mines
- (3) Great boundary fault
- (4) Stromatolite mines
- (5) Malana Group of Hills in Jodhpur
- (6)

Temple area

(Write above this line only)

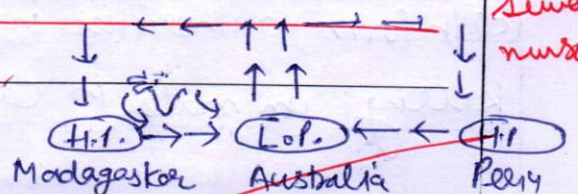
4. "भारत में मानसून की प्रक्रिया को अलनीनो की परिस्थितियाँ कमजोर करती हैं।" समझाइए-  
 "Conditions of El-Nino weaken the monsoon process in India." Explain.

El-Nino are the warm water currents that accumulates at Peruvian coast in place of cold currents. These current reverses the entire Walker Cycle over Australia & African continent and hence moisture-laden winds are carried away from Indian subcontinent. These warm currents create low pressure over Australia & High pressure at Madagascar so trade-winds converges away from India. Hence Monsoon weakens.

3  
 Good  
 Possibility of delayed and weak arrival season monsoon

(Write above this line only)

H.P. = High Pressure  
 L.P. = Low pressure



Reverse Walker cycle



5

आकस्मिक बाढ़ को परिभाषित करते हुए आकस्मिक बाढ़ के कारणों को उल्लेखित कीजिए-  
While defining flash flood, mention the causes of flash flood.

Flash floods are the high/huge volumes of water flow within small time drowning the entire area.

Causes of Flash floods

1) Cloud burst (lot of rain in small time)

2) Melting of Glaciers (Ex. Kedarnath)

3) Outburst of Glacial lakes (Ex. Sikkim floods)

4) Urbanisation (as in Jasi' math)

5) deflecting the flow of rivers.

(Write above this line only)

6.

राजस्थान में बढ़ते मानव-वन्यजीव संघर्ष के कारणों को उल्लेखित करते हुए व्यक्तिगत स्तर पर समाधान के रूप में उठाए जाने वाले कदम/प्रयासों को लिखिए।

Mentioning the reasons for the increasing human-wildlife conflict in Rajasthan, write down the steps/efforts to be taken as solutions at the individual level.

Reasons for Increasing Human-Wild life Conflicts -

① Loss of habitat of Animals (2) Deforestation (3) Urbanization

(4) poaching (5) mining in forest areas (6) over population

are some important reasons as population of humans

increasing so more forests are fell down. Hence, wildlife

find their way to villages; cities. Efforts -

(a) Plantation (b) Avoid buying property in forest areas

(c) Inform authorities in case poaching (d) Avoid hitting/

Killing animals in case they enter in villages.

(Write above this line only)

2 1/2

Weather  
log  
in a  
particular  
area

Flash  
flood

Breaking  
of man-made  
water

2 1/2

Separate  
wildlife  
and  
human  
settlements



Part - C

(30 Marks)

भाग - स

(30 अंक)

Note : Attempt all questions. Answer the following questions in 100 words each. Each Question carries 10 marks.

नोट : सभी प्रश्नों के उत्तर दें। निम्न प्रश्नों का उत्तर 100-100 शब्दों में दें। प्रत्येक प्रश्न के 10 अंक निर्धारित हैं।

1. राजस्थान में खनिज/खनन उद्योग के समक्ष आने वाली समस्याओं को उल्लेखित करते हुए 'राजस्थान खनिज नीति-2015' के महत्वपूर्ण प्रावधानों को उल्लेखित कीजिए।

Mentioning the problems faced by the mining industry in Rajasthan, mention the important provisions of 'Rajasthan Mineral Policy-2015'.

Problems of mining Industry in Rajasthan are

- ① Lack of proper safety measures for workers (silicosis)
- ② Illegal mining is the serious concern
- ③ Lack of proper Infrastructure facilities (Roads; factories)
- ④ Lack of research & development
- ⑤ Very less minerals are so far mined
- ⑥ Loss of revenue
- ⑦ Environmental delays & bureaucratic interferences

Formation of state  
mineral  
exploration  
trust.

Important provisions of Mineral policy-2015

- Mining Industry has to ensure proper safety.
- declare thrust sector

awarding bon  
detineated.

Incomplete answer



3 1/2

निर्माण प्रक्रिया के आधार पर पर्वतों का वर्गीकरण करते हुए पर्वतों के आर्थिक महत्व उल्लेखित कीजिए।  
Mentioning the classification of mountains on the basis of formation process, mention their economic importance.

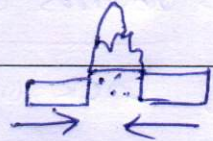
Residual mountain

Classification of mountains on the formation's basis -

Block mountain

① Fold mountains / Hoerst - these are formed due to

compressional stress of converging plates & subsequent upheaval, High peaks. Ex. Himalayas; Alps



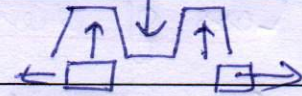
Volcanic mountain

② Volcanic mountains -

these are formed due to the solidification of lava eruptions over time. Ex. Kilimanjaro; Mid Oceanic Ridges

③ Block mountains - these are formed by tensional

stress of plates in which middle subducts & sidewise upheaval of plate/land take place



They have flat tops. Ex. black forest Germany

Economic Importance -

Hydroelectric power

(1) Fold mountains have highest peaks; they are tourist destination & also vegetation

Raw material to industry

(2) Volcanic mountains - are very rich in

mineral resources. They are great source of important minerals.

(3) Block mountains - they have flat tops so hill stations; timber are obtained.



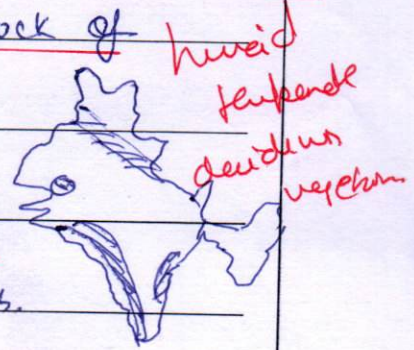
41/2

3. निम्न पर टिप्पणी लिखिए-

Write comment on the following:-

1. आर्द्र उष्णकटिबन्धीय अर्द्ध सदाहरित वनस्पति/Humid tropics semi-evergreen vegetation
2. जनसंख्या वितरण को प्रभावित करने वाले कारक/Factors affecting population distribution

1. Humid tropics semi-evergreen forests are found in areas of rainfall 175-225 cm. Underground creepers & Climbers provide them evergreen look. Deodar; Kail; Oak are some varieties. Mostly find in foothills of Himalayas; leeward side of Western ghats; small block of mount Abu (Rajasthan). as shown in the figure marked region. Tropics lies in major part of India except upper North.



Vegetation -  
Rosewood, Amu,  
Teak, chankar.

2. Factors affecting population distribution.

- (a) Historical factors - mostly settle in river banks; whose prey is available; already settled
- (b) Geographical factors - plains have large population compare to hilly terrain because of accessibility  
Ex. (Northern plains)
- (c) Social factors - where one society settles then other will settle nearby to it for interaction.
- (d) Urbanised towns - large cities have greater population because of facilities & employment.

Carburetor



W.H.

1. Most tropical semi-evergreen forests are found in areas

of annual 175-225 cm. Underground creepers &

climbers provide them evergreen look. Teak, Oak,

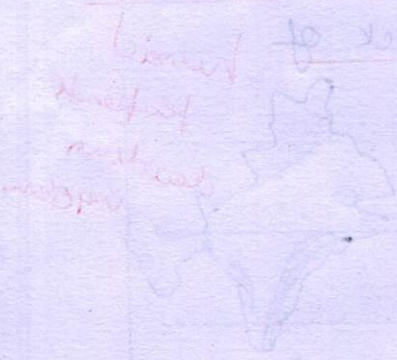
are some varieties. Mostly found in foothills of Himalayas.

toward side of western slope; small block of

mountain (Rajasthan) as shown in

the figure marked region. Tropical forest

is major part of India except high hills.



2. Factors affecting population distribution

in historical factors - mostly settled in river banks;

where prof. is oversteer & largely settled

in geographical factors - plain have large population compare

to high lands because of accessibility

3. Social factors - where one society better than other

will settle nearby to it for interaction.

4. Urbanized towns - large cities have greater population

because of facilities & employment

5. Climate

6. Soil

7. Water

low hills  
underground

large population compare to high lands because of accessibility

will settle nearby to it for interaction.

large cities have greater population

because of facilities & employment

Climate

Soil

Water