

# Samyak

An Institute For Civil Services

## RAS - 23 MAINS TEST SERIES

सिद्धि-II - 008

Time : 3 Hours

(Paper - II)

Maximum Marks : 200

सामान्य ज्ञान व सामान्य अध्ययन-II  
General Knowledge & General Studies-II

Name :		MARKS	
Enroll. No.:	Part	Att. Ques.	Marks Obtained
Date of Birth :	Unit - I	12	27 1/2
Medium : English	Unit - II	13	26 1/2
E-mail :	Unit - III	14	32 1/2
Exam Date :	Total		86 1/2
Evaluator's Code	Reviewer's Code	Invigilator's Signature	Student's Signature

### अनुदेश (Instructions)

1. परीक्षा शुरू होने से पहले पुस्तिका को जाँच लें।  
Please check the booklet before the commencement of the exam.
2. अंक योजना प्रत्येक खंड के प्रारम्भ में दी गई है।  
The marking scheme is given at the start of every section.
3. अभ्यर्थियों को उत्तर निर्धारित शब्द सीमा से अधिक नहीं लिखना चाहिए, इसका उल्लंघन करने पर अंक काटे जा सकते हैं।  
Candidates should not write more than the prescribed word limit in answers, violating this may result in deduction of marks.
4. अभ्यर्थियों को निर्देशित किया जाता है कि किसी भी प्रश्न का उत्तर प्रश्नोत्तर पुस्तिका में निर्धारित स्थान पर ही लिखें। बॉर्डर लाईन से बाहर उत्तर 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.

SAMYAK, Near Riddhi Siddhi, Gopalpura Bypass, Jaipur, 9875170111

Test Series Helpline & Whatsapp - 9414988860, Email Id - samyakttestseries@gmail.com

	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

- please learn about case study on ethics
- you are well aware about — structuring & presentation of answer.  
- so plz maintain status quo
- Time management is good.
- please focus on value addition, content argumentation & current affairs.

• You are a potential candidate, so please stay tuned.

Best of luck



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 के उत्तर 15-15 शब्दों में दें। प्रत्येक प्रश्न के 2 अंक निर्धारित हैं।

1. 'बौद्धिक पाखंड' की धारणा, बौद्धिक सत्तनिष्ठा से किस प्रकार भिन्न है?  
How is the concept of intellectual hypocrisy different from intellectual integrity?

(Write above this line only)

2. 'आधारभूत मानवीय मूल्यों' को सोदाहरण परिभाषित कीजिए।  
Define 'fundamental human values' with examples.

Basic human values keep on the category of universal value

It refers to the core values that moulds the character of a human being

Example - Integrity, compassion, politeness, non violence and Justice  
Love, affection, charity peace etc

(Write above this line only)

3. कर्तव्य के सन्दर्भ में 'नैतिक आबद्धता' को समझाइये।  
 Explain 'Moral Obligation' in the context of duty.

Every person is bound by morality  
 bound towards his

moral obligation means that duty to be performed  
 with the spirit of duties (or following Swadharma)  
 is the duty of human being

4. 'सत्यनिष्ठा' की अवधारणा को स्पष्ट कीजिए।  
 Explain the concept of 'integrity'.

(Write above this line only)

Integrity in mind, word &  
 action, maintained  
 consistency over a period of

Integrity refers to be accountable and actions for  
 the welfare of the society  
 It is virtue for a civil servant  
 explaining the conduct before the people.

(Write above this line only)

5. 'उत्कृष्ट स्वार्थमूलक सुखवाद' पर टिप्पणी लिखिए।  
 Write comment on 'Refined Egoistic Hedonism'.

Attention should be paid  
 to superior pleasure

Concept by Epicurus

All these actions are ethical which ensure  
 mental pleasure instead of physical pleasure  
 It is refined theory of Epicurus philosophy  
 maximum mental pleasure for maximum number  
 of people.

(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 के उत्तर 50 शब्द में दें। प्रत्येक प्रश्न के 5 अंक निर्धारित हैं।

1. "धर्म (रिलिजन) एवं नैतिकता में अनिवार्यता का संबंध हो यह आवश्यक नहीं।" उक्त कथन के पक्ष में अपने तर्क प्रस्तुत कीजिए।  
"It is not necessary that there be an essential relationship between religion and morality." Present your arguments in favour of the above statement.

*in this you can compare Gandhi's rahit mase*

The concept of religion and morality are different

(i) Religion means following the duty and morality is a virtue of normative science.

(ii) Religion may be for a specific individual whereas morality is a universal concept.

(iii) Religion is binding upon an individual whereas morality is an independent concept

Hence, religion and morality have no relationship.

(Write above this line only)

2. "चार्वाक दर्शन समाज में सकारात्मक मूल्य/पक्षों के साथ-साथ नकारात्मक मूल्य/पक्षों को भी बढ़ावा देता है।" समझाइये।  
"Charvaka philosophy promotes positive values/aspects as well as negative values/aspects in the society." Explain.

'Charvaka' philosophy is a heterodox philosophy and its founder was Brihaspati ji.

Positive value

Negative value.

(i) called for individual pleasure

promote materialism  
Not care for society

(ii) follow only Artha, kama

avoid Moksha

(iii) Present is reality

Individual centric in nature

(iv) pleasure, satisfaction

not believe about value of other

promote rationality

Jainism and Buddhism are other heterodox philosophy

(Write above this line only)

*present human  
is expert &*

3. "गांधीजी का अहिंसा का सिद्धांत अपवादों को स्वीकृति प्रदान करता है।" सोदाहरण स्पष्ट कीजिए।  
 "Gandhiji's principle of non-violence allows exceptions." Explain with example.

In negative sense, non-violence means not hurting by  
action, thought and speech, but according to Gandhiji  
having compassion, politeness also part of non violence.  
Gandhiji compared it with cowardness. Between non-violence  
and cowardness, non violence should be chosen for  
the welfare of the society. cowardness is sign of  
a weak man whereas non violence is for a virtue of  
strong human being.  
 please describe your answer  
 with examples like  
 Home, non violence allows exception. • feminist acceptance

(Write above this line only)

4. नेपोलियन बोनापार्ट के जीवन से मिलने वाली/वाले शिक्षा/मूल्यों को लिखिए।  
 Write the lessons/values learned from the life of Napoleon Bonaparte.

• Rupture  
 • psychopathy

Napoleon Bonaparte was a Russian French ruler.

(1) Equality, fraternity, liberty are main value which  
can be taken from Napoleon Bonaparte

(ii) egalitarian society can be established, according to  
Napoleon Bonaparte.

(iii) Healthy relationship between human being and  
environment

(iv) upliftment of the weaker section

(v) Removal of emasculation

(Write above this line only)

phase include - courage, struggle, firm determination  
planning, efficiency  
self confidence, ambition

5. "गांधीवादी दर्शन में उल्लेखित 'सत्याग्रह' की अवधारणा, निष्क्रिय प्रतिरोध से भिन्न है।" समझाइये।  
"The concept of 'Satyagraha' mentioned in Gandhian philosophy is different from passive resistance." Explain.

'Satyagraha' means Satya + Agraha, it calls for change of the heart of the opponent.

Passive resistance is form of non violence whereas Satyagraha is form of non violence

(i) Satyagraha is a bridge whereas passive resistance is a wall

(ii) Satyagraha calls for co-existence between human being and environment whereas passive resistance applied force.

(iii) 'Satyagraha' demands self-force or love for weaker section whereas passive resistance don't care for weaker section.

(Write above this line only)

सर्वाधिक विश्वसनीय व परिणामोन्मुखी

**Samyak**  
An Institute For Civil Services

# TEST SERIES

for

# RAS Mains 2023

प्रारम्भ 07 अप्रैल  
(प्रत्येक रविवार)  
10 AM or 2 PM

Total **16** Test

**12 + 04**

TOPIC WISE FULL TEST

विशेषताएं ▶

- प्रत्येक टेस्ट पेपर के साथ आधे घंटे हिंदी/अंग्रेजी का नियमित टेस्ट
- विस्तृत मूल्यांकन और वन-टू-वन पर्सनल इंटरैक्शन
- Detailed Model Answer Key
- ऑनलाइन एवं ऑफलाइन

Near Riddhi Siddhi,  
Gopalpura Bypass, Jaipur

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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 के उत्तर 100 शब्दों में दें। प्रत्येक प्रश्न के 10 अंक निर्धारित हैं।

1. वस्तुनिष्ठता की अवधारणा को स्पष्ट करते हुए प्रशासन में वस्तुनिष्ठता का महत्त्व बताइये। क्या किसी व्यक्ति के शत प्रतिशत वस्तुनिष्ठ होने की सम्भावना हो सकती है?

Explain the concept of objectivity and explain the importance of objectivity in administration. Can there be a possibility for any person to be hundred percent objective?

*one of foundation value of Nolan committee of 2002*  
Objectivity means belief and conduct of a human being should be ethical and for the public welfare.

(1) It plays as guiding principle in the administration.

(2) It enhance decision making for an administrator.

*Good approach*  
(3) It helps in ensuring public welfare during formulation of policy.

*with authority*  
(4) It helps in resolving ethical dilemma.

(5) It ensure public participation in the formulation of policy.

*elaboration*  
(6) It makes human being more accountable.

(7) It protects interest of the weaker section.

*please*  
No, there is no possibility for being hundred percent objective.

*maximisation*  
(1) As natural resources are not adequate.

*Chaturghat*  
(2) No guarantee for hundred percent accountability.

(3) Interference of private relation and public relation.

(4) Politicisation of the bureaucracy.

*Grandhi's talisman*  
Grandhi's talisman with helps in achieving objectivity in the society.

(Write above this line only)



2. निम्न पर टिप्पणी लिखिए / Write comment on the following.

1. प्रशासकों के समक्ष उत्पन्न होने वाले विभिन्न नैतिक द्वंद्व / Various ethical dilemmas arising before administrators
2. श्रीमद्भगवद्गीता के स्वधर्म का महत्त्व / Importance of Swadharma of Shrimadbhagvadgita

① The ethical dilemmas means contradiction between right and wrong conduct in the public administration.

- (i) Emotions during discharging of duty toward welfare
- (ii) Protecting the interest of employment and human being
- (iii) Involvement of personal and professional life during decision making process.
- (iv) Involvement of politics in decision making process.

To resolve a ethical dilemma, constitution, rules and regulations and code of conduct and code of ethics should be followed and wisdom of leader helps in resolving the dilemma.

② 'Swadharma' means following the duty by oneself. It is 'Artha's philosophy' in essence.

- (i) The public welfare in the society Good approach but content
- (ii) Upliftment of the weakest section Enrichment
- (iii) Establishment of the rule based society to regulate
- (iv) Protection of the interest of the minority.

Accordingly, there is no work inferior or superior all workers are equal and should be followed.

The specialist and generalist controversy can be resolved by...

(Write above this line only)

2. निम्न पर टिप्पणी लिखिए/Write comment on the following
1. प्रशासकों के समक्ष उत्पन्न होने वाले विभिन्न नैतिक द्वंद/Various ethical dilemmas arising before administrators
  2. श्रीमद्भगवद्गीता के स्वधर्म का महत्त्व/Importance of Swadharma of Shrimadbhagvadgita

① The ethical dilemmas means contradiction between right and wrong conduct in the public administration.

(I) Emotions during discharging of duty toward values

(ii) Protecting the interest of environment and human being

(iii) Involvement of personnel and professional life during decision making process.

(iv) Involvement of politics in decision making process.

To resolve a ethical dilemma, constitution, rules and regulation and code of conduct and code of ethics should be followed and taking help of trade helps in resolving the dilemma.

② 'Swadharma' means following the duty by oneself. It is 'Vedta's philosophy' in essence.

(i) The public welfare in the society good approach but content

(ii) Upliftment of the weakest section enrichment

(iii) Establishment of the rule based society (required)

(iv) Protection of the interest of the minority.

Accordingly, there is no work inferior or superior all workers are equal and should be followed.

The specialist and generalist controversy can be resolved by...

(Write above this line only)

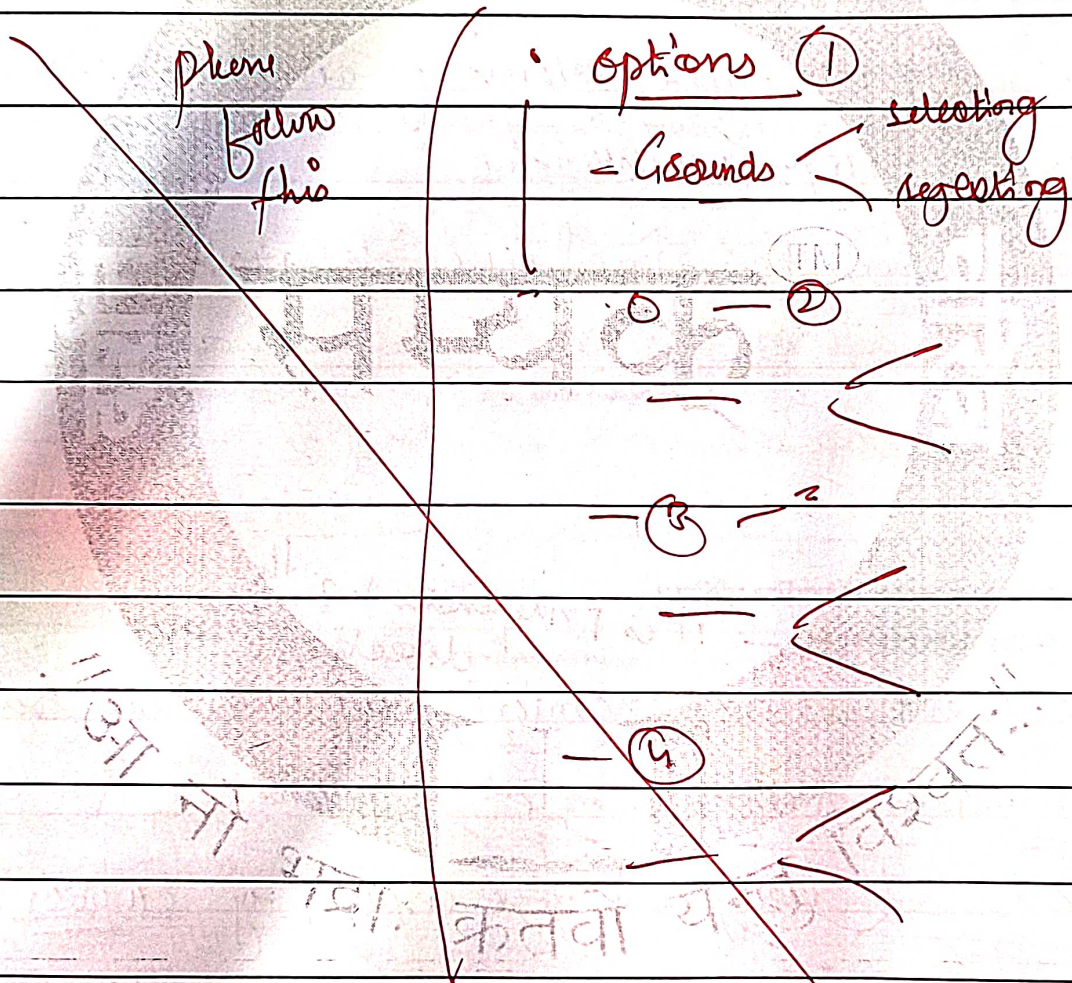
3. प्रश्न में उल्लेखित केस स्टडी का अध्ययन करते हुए विकल्प तथा विकल्प चयन या खारिज करने के आधारों को बताइये। खेरवाड़ा एक जनजातीय जिले का ब्लॉक है। खेरवाड़ा प्राइमरी स्वास्थ्य केन्द्र में अनेक पद खाली हैं और केवल एक डॉक्टर जिनका नाम लोकेश है, एमबीबीएस हैं। एमबीबीएस थोड़े से कोर कर्मचारियों के साथ प्राइमरी स्वास्थ्य केन्द्र का कामकाज संभालते हैं। एक साल पहले खेरवाड़ा के प्रधान ने डाक्टर लोकेश से एक व्यक्ति के लिए चिकित्सा प्रमाण पत्र जारी करने के लिए कहा था, जिसको डॉ. लोकेश जानते थे कि वह जरा भी बीमार नहीं था। इसलिए उन्होंने इंकार कर दिया। इसी समय डॉ. लोकेश ने खेरवाड़ा में अपना आवासीय मकान बनवाने की योजना बनाई। जब डॉ. लोकेश के मकान बनाने की योजना भवन निर्माण की अनुमति हेतु पंचायत के सामने आई तो पंचायत ने टालमटोल की नीति अपनाई और न तो उन्हें अनुमति दी और न ही उनके प्लान को अस्वीकृत किया। डॉ. लोकेश ने उनसे निर्णय लेने का अनुरोध करते हुए दो बार मुलाकात की लेकिन कोई कार्यवाही नहीं हुई। कुछ दिनों बाद सुबह के समय जब प्राइमरी स्वास्थ्य केन्द्र में केवल क्लीनर, स्टाफ नर्स तथा डॉक्टर ही उपस्थित थे। नर्स के पास फोन आया कि प्रधान के पुत्र और उसके एक मित्र की कार से दुर्घटना हो गई है और उन्हें प्रधान एवं अन्य लोग प्राइमरी स्वास्थ्य केन्द्र में ला रहे हैं। नर्स ने यह बात डॉक्टर को बताई। अब डॉ. लोकेश को गाँव के प्रधान का रवैया याद आता है। इस सन्दर्भ में डॉ. लोकेश के पास क्या विकल्प हो सकते हैं तथा विकल्प चयन या खारिज करने के आधारों को स्पष्ट कीजिये।

**Studying the case study mentioned in the question, explain the options and the basis for selecting or rejecting the option.**

Kherwara is a block of a tribal district. There are many posts vacant in Kherwara Primary Health Center and there is only one Doctor named Lokesh (MBBS). He manages the functioning of the primary health center with a small core staff. A year ago the village head of Kherwara had asked Dr. Lokesh to issue a medical certificate for a person whom Dr. Lokesh knew was not at all ill. So he refused. At this time, Dr. Lokesh planned to build his residential house in Kherwara. When Dr. Lokesh's plan to build a house came before the Panchayat for permission to construct the house, the Panchayat adopted a policy of avoidance and neither gave him permission nor rejected his plan. Dr. Lokesh met them twice requesting them to take decision but no action was taken. A few days later, early in the morning, when only the cleaner, the staff nurse and the doctor were present in the Primary Health Centre, the nurse got a call that the son of village head and one of his friends had met with an accident in their car and the village head and others are bringing them to the primary health centre. The nurse told this to the doctor. Now Dr. Lokesh remembers the attitude of the village head. In this context, what options can Dr. Lokesh have and explain the grounds for selecting or rejecting the option.

The Dr. Lokesh, being a doctor, he has clinical duty to ~~treat~~ treat the patient without any fear or favour. No matter who the patient is. A doctor has value like integrity, compassion and accountability for his patients and a doctor also emerges an ethical oath before doing his practice. ~~to~~ ~~direct~~ ~~the~~ ~~patient~~ ~~is~~ ~~the~~ ~~top~~ ~~most~~ ~~duty~~ ~~and~~ ~~can~~ ~~be~~ ~~a~~ ~~role~~ ~~model~~ ~~after~~ ~~breaking~~ ~~the~~ ~~son~~ ~~of~~ ~~village~~ ~~head~~ ~~man~~ ~~despite~~ ~~his~~ ~~misg~~ ~~governor~~

In order to construct the house, he can approach the higher authority and can explain them the reasons for granting permission. He may write to revenue head or collateral office explaining the whole matter of construction of house.



(Write above this line only)

Unit - II  
(यूनिट - II)

(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 के उत्तर 15-15 शब्दों में दें। प्रत्येक प्रश्न के 2 अंक निर्धारित हैं।

1. हाल ही में सुर्खियों में रहे 'बैलेचले पार्क घोषणा पत्र' पर टिप्पणी लिखिए।

Write comment on the 'Bletchley Park Declaration' that was recently seen in the news.

*Signed at Bletchley Park, England by EU & countries*

It was related to 'use of Artificial Intelligence' objective to protect the interest of all stakeholders in application of Artificial Intelligence. India ~~is among~~ has signed the 'declaration'.

(Write above this line only)

2. अनिषेकफलन को सोदाहरण परिभाषित कीजिए।

Define isotropy with example.

*it is independent of the directions*

The element whose chemical properties are same but physical property are different. Diamond and graphite are isotropy of carbon where carbon atoms are arranged in their physical property are observed tetragonal to hexagonal.

(Write above this line only)

3. 'विद्युत ऋणता' पर टिप्पणी लिखिए।  
Write note on 'Electronegativity'.

Electronegativity means electron subatomic particle  
with negatively charge  $-1.6 \times 10^{-19}$  kg  
revolves around the nucleus of atoms they have  
properties of repulsion

(Write above this line only)

4. चिकित्सा के क्षेत्र में रेडियोएक्टिव/रेडियोधर्मी समस्थानिकों के उपयोग लिखिए।  
Write the uses of radioactive isotopes in the field of medicine.

- (I) Iodine <sup>131</sup> - for treated cancer
  - (II) Cobalt - <sup>60</sup> - for cancer diagnosis
  - (IV) radioactive therapy by radiation for cancer treated
  - (II) Iodine - 140 - cancer treatment
- f. Sodium 24

(Write above this line only)

5. 'जीन डोपिंग' पर टिप्पणी लिखिए।  
Write note on 'Gene Doping'.

Gene Doping means inserting the foreign gene  
in human body with the help of gene therapy  
etc by gene gun

*Please read more about it for conceptual clarity*

(Write above this line only)

3. 'विद्युत ऋणता' पर टिप्पणी लिखिए।  
Write note on 'Electronegativity'.

Electronegativity means electron subatomic particle  
with negatively charge  $-1.6 \times 10^{-19}$  kg  
revolves around the nucleus of atoms they have  
properties of repulsion

(Write above this line only)

4. चिकित्सा के क्षेत्र में रेडियोएक्टिव/रेडियोधर्मी समस्थानिकों के उपयोग लिखिए।  
Write the uses of radioactive isotopes in the field of medicine.

- (I) Iodine <sup>131</sup> - for breast cancer
- (II) Cobalt <sup>60</sup> - for cancer diagnosis
- (IV) radiative therapy by radiation for cancer treatment
- (II) Iodine - 140 - cancer treatment

f. Sodium 24

Chromium 51 (Write above this line only)

mercury 203

phosphorus 31

5. 'जीन डोपिंग' पर टिप्पणी लिखिए।  
Write note on 'Gene Doping'.

*please read more about it  
for conceptual clarity*

Gene Doping means inserting the foreign gene  
in human body with the help of gene therapy  
or by gene gun

(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 के उत्तर 50 शब्दों में दें। प्रत्येक प्रश्न के 5 अंक निर्धारित हैं।

1. सुपर कंप्यूटर के अनुप्रयोगों को लिखते हुए इंटरनेशनल सुपर कंप्यूटर कॉन्फ्रेंस-2023 के अनुसार भारत के शीर्ष चार सुपर कंप्यूटरों के नाम बताइए।

While writing the applications of supercomputers, name the top four supercomputers of India according to the International Supercomputer Conference-2023.

Super computer works on the principle of quantum

It helps in agriculture for developing high variety seeds

It helps in developing targeted drugs in medical sector

It help in monitoring environmental pollution

It can help in mathematical calcult, bridge, genome

(i) Aharawal (ii) Param <sup>100th</sup> (iii) Shivay

(iv) Shakti the India's supercomputer

(Write above this line only)

2. मानव शरीर में पाई जाने वाली 'पाचक ग्रंथियों' पर संक्षिप्त टिप्पणी लिखिए।  
Write short note on the 'digestive glands' found in the human body.

Salivary gland,  
Liver  
pancreas

Digestive glands is part of human digestion system.

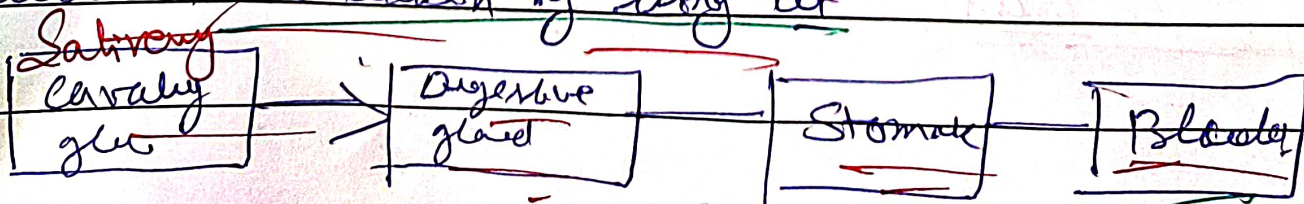
It is located in stomach. after cavity gland, it

secretes an enzyme by digestive gland and

secreted enzyme enter into stomach after it bleed

to eyes walls in human body the required

nutrition are taken by using it



(Write above this line only)



3. मिश्रणों को पृथक करने की उर्ध्वपातन व वर्णलेखन विधियों का वर्णन कीजिए।  
Describe the sublimation and chromatographic methods of separating mixtures.

Sublimation means directly gaseous form after heating the solid form of a material after evaporating the liquid the mixtures are obtained.

In chromatograph method high pressure is applied for separating the mixture. The solid impurities settled down at the bottom and less denser are float on the liquid.

Sublimation is a easy technique whereas chromatography is a complex technique.

(Write above this line only)

4. डीएनए फिंगर प्रिंटिंग की अवधारणा को स्पष्ट करते हुए इसके अनुप्रयोगों का उल्लेख कीजिए।  
Explain the concept of DNA finger printing and mention its applications.

DNA finger printing means identification of a person being using restorative DNA (0.7%).

- (i) It helps in identification of parents.
- (ii) In hospital during child exchange.
- (iii) In resolving crime case, to find culprit.
- (iv) In curing genetic disorders in medical science.
- (v) Developing smart drugs in medical field.
- (vi) Identification of a dead body during accident.
- (vii) Identification of genetic disorders.

(Write above this line only)

plan  
reconsider  
B  
found  
model  
answer

5. पादप हार्मोन 'ऑक्सिन' के कार्यकीय प्रभावों को उल्लेखित कीजिए।  
Mention the physiological effects of the plant hormone 'Auxin'.

*Growth Regulator*  
Auxin, a plant hormone

- (i) It stimulates the growth of the plant
- (ii) protect the plant from harmful weeds and insects
- (iii) Helps in early ripening of the fruit
- (iv) The colour of leaves changed due to it

In addition, (i) It result in bioaccumulation in plant

- (i) degrade the environment *To obtain parthenocarpous fruits*
- (ii) degrade the soil *Control unnecessary flowering to maintain dormancy in seeds*

(Write above this line only)

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TEC APPLY

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 के उत्तर 100-100 शब्दों में दें। प्रत्येक प्रश्न के 10 अंक निर्धारित हैं।

1. जीन चिकित्सा की अवधारणा को स्पष्ट करते हुए इसके लाभ/अनुप्रयोग बताते हुए इसकी सीमाएँ उल्लेखित कीजिए।  
Explaining the concept of gene therapy, explain its benefits/applications and mention its limitations.

Gene therapy refers to using biotechnology in } please define or concisely  
curing the disease in human body

(1) It helps in curing infertility problem in women IVF } please specify on methods

(ii) The genetic disorders can be cured during it, through parent baby, by removing defective mitochondria.

(iii) Virus and bacteria's characteristics can be imitate.

(iv) Desired results of baby can be obtained. } Approach is good

(v) New drugs can be developed by using it

(vi) precise and more targeted therapy can be developed } please elaborate

(vii) Plasma therapy and gene therapy can be developed

Limitation (1) It is against the natural processes. } Status quo

(ii) Promote designed baby culture in society

(iii) Non acceptance its defective baby by parents

(iv) Intellectual property and issues

(v) Against the ethical practices.

(vi) Promotes lab culture of organ and baby

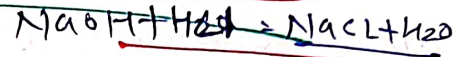
It should be used after due process and should not be used as a primary primary primary

(Write above this line only)

*please fulfil the  
use demand*

2. निम्न बिन्दुओं पर टिप्पणी लिखिए/Write comments on the following points.
1. सोडियम हाइड्रॉक्साइड के गुण व उपयोग/Properties and uses of sodium hydroxide
  2. चुंबकीय अनुनाद इमेजिंग तकनीक व अनुप्रयोग/Magnetic Resonance Imaging Techniques and Applications

(1) Sodium hydroxide is a formed by sodium and hydroxide  
chemical formula NaOH, a base, OH after dissolves



- (i) It is used in salt production
- (ii) It is used in production of soap -  $R-COO-Na$
- (iii) It is used in production of chemical industries
- (iv) It is used in ~~production~~ industrial sector
- (v) It is used in neutralisation of mixtures.
- (vi) It is used in explosive substances.

Hence, its use is multiple in sectors

(2) Magnetic Resonance Imaging Technology.

In this technology NMR technology is used and

*indicated* radio frequency field is induced for this technology

It gives segmental images of body.

- (i) Blood circulation can be monitored
- (ii) It is less harmful in diagnosis as no ionising <sup>rays</sup>
- (iii) Results are more reliable and accurate.
- (iv) Use hydrogen which is abundant in body

Despite above advantages, the metallic part cannot be diagnosis using this technology. Teeth are can not be diagnosis some negative effects are observed.

(Write above this line only)

3. निम्न पर टिप्पणी लिखिए/Write comment on the following.

1. थाइराइड व पैराथाइराइड द्वारा स्रावित हार्मोन व उनकी उपयोगिता

Hormones secreted by thyroid and parathyroid and their usefulness

2. क्रायो बायोलॉजी की अवधारणा व अनुप्रयोग/Concept and applications of cryobiology

(1) Thyroid secretes <sup>Thyroxine, T<sub>3</sub>, T<sub>4</sub>, TSH</sup> ~~trypsin~~ hormone and parathyroid secretes parathyroid hormone in the body, usefulness

(i) It maintains a healthy system in the body.

(ii) It protects from goiter disease in the body <sup>hypothyroidism, hyperthyroidism</sup>

(iii) It ~~improves~~ digestive system of the body.

(iv) It provide immunity to the body.

(v) It helps in blood purification in the body.

Hence, it can be concluded thyroid and parathyroid play important role in maintain a healthy body.

(ii) Applications of cryobiology <sup>phase explanation on Concept of cryobiology</sup>

(1) Agriculture: genetic insect, weed and other harmful organisms by manufacture smart pesticides, weed and

(a) helps in developing high variety seeds

(ii) Medical: can manufacture smart drugs or develop

(b) develop antibodies for more precise surgery

(iii) Industry: developed material which does not pollut

(iv) Environmental: nanosensor, nano merged for

environmental protection  
→ please read more about it for conceptual clarity

(Write above this line only)

(Unit - III)

(70 Marks)

(यूनिट - III)

(70 अंक)

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 के उत्तर 15-15 शब्दों में दें। प्रत्येक प्रश्न के 2 अंक निर्धारित हैं।

1. शीत ऋतु में दक्षिण भारत की तुलना में उत्तरी भारत में अधिक ठंड पड़ने के कारणों को लिखिए।

Write the reasons why North India is colder in winter than South India.

(i) Located in temperate region

(ii) Distance from the sea.

(iii) Influence of cold Siberian wind

(iv) Proximity to Himalayas cause falling during winter

(v) Large desert Thar and Rajasthan.

(Write above this line only)

2. राजस्थान में बेरिलियम उत्पादक क्षेत्रों के नाम लिखिए।

Write the names of beryllium producing areas in Rajasthan.

• Udaipur

Bhilwara

Dungarpur

Bikaner

Pali

Sirohi

Jaisalmer  
(Niyamoh)

Ajmer  
(Banswari)

(Write above this line only)

3. भारतीय भूवैज्ञानिक सर्वेक्षण (जियोलॉजिकल सर्वे ऑफ इंडिया) के द्वारा घोषित राजस्थान के प्रमुख भू-विरासत स्थलों के नाम लिखिए।

Write the names of the major geo-heritage sites of Rajasthan declared by Geological Survey of India.

(12) 12 sites declared by GSI

good answer

(1) Jaisalmer - ~~valley~~ (v) welded cliff - Jodhpur

(1) Crater - ~~Babar~~ (v) ~~Sandstone~~ granite - Pali

(1) ~~Sakar wood~~ ~~par~~ ~~Gravel~~ (v) (1)

(1) Jodhpur malim igneous ~~Jodhpur~~

(Write above this line only)

4. गुजरात का तटीय मैदान।  
Coastal plain of Gujarat.

Gujarat coastal plain - Part of western coastal plain

Kutch plain

Kachiyawad plain

Gujarat plain

These plain are ~~submergen~~ in nature

remains part created here.

(Write above this line only)

5. कॉन्फ्रेंस ऑफ पार्टीज 28  
Conference of Parties 28

It is united nation conference of climate change conference

COP-28 - Held in Abu Dhabi (UAE) in Dec 23

(1) Loss and damage fund was established

(1) global stock

(1) net-zero pledge.

(1) Green climate finance

(Write above this line only)

(30 Marks)

Part - B

(30 अंक)

भाग - ब

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 के उत्तर 50 शब्दों में दें। प्रत्येक प्रश्न के 5 अंक निर्धारित हैं।

1. सर्दियों के मौसम में दिल्ली की वायु गुणवत्ता के निम्न होने अथवा वायु प्रदूषण के बढ़ने के कारणों लिखिए।  
Write the reasons for the low air quality of Delhi or increase in air pollution during the winter season.

World air quality index declared Delhi one of most polluted

(1) Green house gas emission due to high industrial areas.

(ii) Burning of crop residue or stubble during November.

(iii) High pressure area slows movement of air

(iv) Carbon emission due to large transport vehicles.

(v) Construction of new building in NCR area.

→ odd even strategy, (i) air quality index helps in controlling

(ii) Smoke tower

• fine water & fine mist, Thermal inversion, Irregular Sanjau.

2. निक्षेपणात्मक निर्माण प्रक्रिया के आधार पर निर्मित मैदानों पर संक्षिप्त लेख लिखिए।

Write short article on the plains formed on the basis of depositional formation process.

The sediments brought by the river results in formation of plain. These plains are

(1) Alluvial plain formed due to deposition of the

alluvial deposit by river. Ganges plain, Brahmaputra plain

(ii) Delta plain : at the mouth of the river fine sediments results in forming delta plain, Godavari delta plain

These plains helps in production of grain (i) Kodan plain

(Write above this line only)



3. पृथ्वी की आन्तरिक संरचना के संदर्भ में 'स्वैस' के मत को स्पष्ट कीजिए।  
Explain the opinion of 'Suess' regarding the internal structure of the Earth.

Suess defined three on the basis of

rock structure

(i) SIAL - Silica + Aluminium

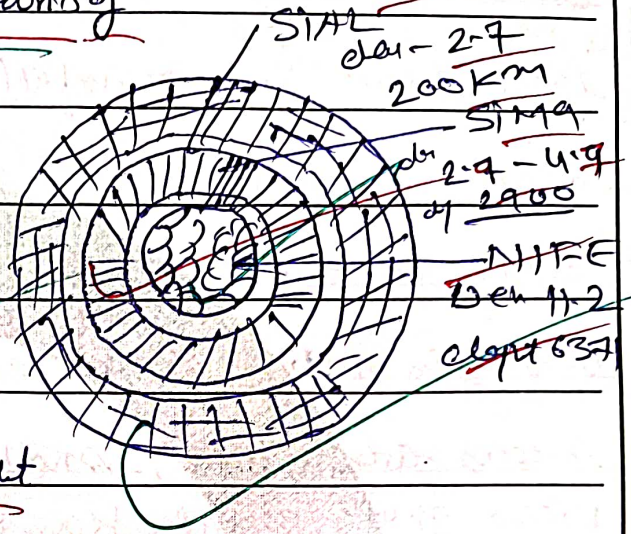
crust & upper part of earth

(ii) SIMA - Silica + Magnesium

silica + magnesium, middle part

(iii) NIFE - Nickel + Iron - lower part of the earth

(Write above this line only)



4. राजस्थान में अरावली पर्वतमाला के विस्तार को उल्लेखित कीजिए।  
Mention the extent of Aravali mountain range in Rajasthan.

Aravali mountain 690 km 692 km

formation - Decamberic period

(i) Northern aravali - Jaisalmer to

Jaipur - Rayasana (1051 m)

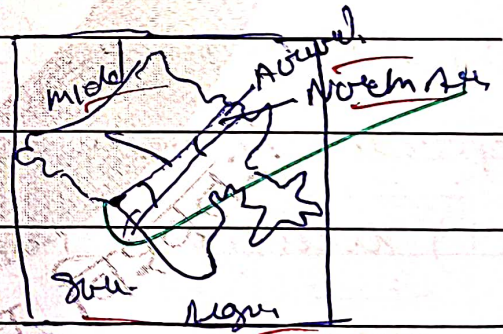
(ii) Middle aravali (Jaipur to Ajmer)

(Tolgay - 934 m) (Taragarh 873 m)

(iii) South Aravali - Ajmer to Rayasana (Carruslike type

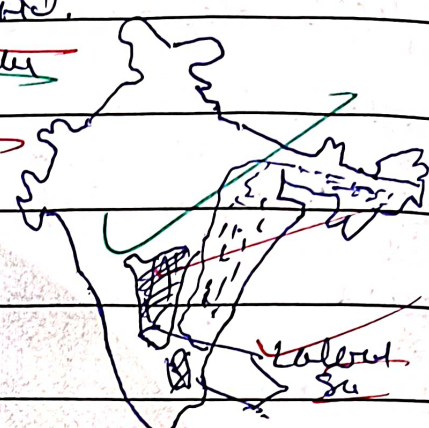
peak. (1722 m)

shape for demand of word limit



5. लेटेराइट मृदा की विशेषताएँ लिखते हुए भारत में इसके विस्तार क्षेत्र को बताइये।  
Write the characteristics of laterite soil and tell its area of distribution in India.

Complete leaching  
- silica  
- Red humus  
- Red  
- Lower  
Laterite soil means brick layers soil.  
These found high rainfall areas in  
Red laterite soil are leached away  
due to high rainfall

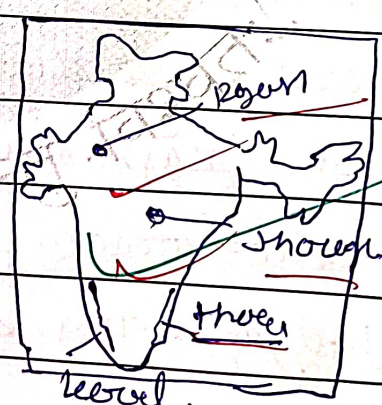


Poor in nitrogen, silicon and organic matter  
Areas are - Kerala, Andhra Pradesh, western coast of  
Kerala part, MP, Karnataka, Assam, Meghalaya,  
east coast of Orissa in all these for heavy  
(Write above this line only)

6. भारत में नाभिकीय या परमाणु ऊर्जा उत्पादन में सहायक प्रमुख खनिज पदार्थों के वितरण पर संक्षिप्त टिप्पणी लिखिए।  
Write short note on the distribution of major minerals helpful in nuclear or atomic energy production in India.

(1) Uranium and thorium is used for atomic energy production. Uranium is

(1) Uranium - Rajasthan  
Jharkhand in  
(2) Thorium - monazite sand  
in western coastal part of



western coastal part of Kerala, Andhra Pradesh  
Kerala, Karnataka, east coast

• please include - Beryllium  
Erbium  
Samarium  
Graphite  
Antimony

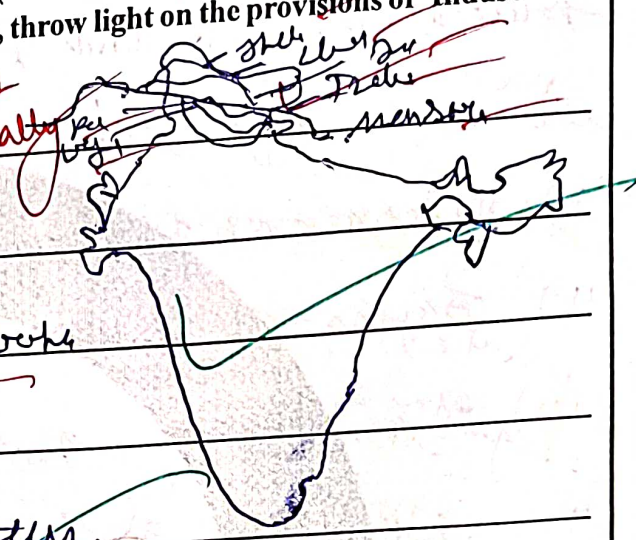
(Unit - III) (यूनिट - III)

Part - C (भाग - स)

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 के उत्तर 100-100 शब्दों में दें। प्रत्येक प्रश्न के 10 अंक निर्धारित हैं।

1. While writing article on the drainage system of Indus River, throw light on the provisions of 'Indus River Water Treaty'.  
 सिंधु नदी के अपवाह तंत्र पर लेख लिखते हुए 'सिंधु नदी जल समझौते' के प्रावधानों पर प्रकाश डालिए।

Indus river is a trans-himalayan river  
 originates from the western  
 Himalayas and its main  
 branches are - Ravi, Beas,  
 Chenab, Jhelam, Satluj.



The Indus Water Treaty was signed in 1960 between Jawahar Lal Nehru, former Prime Minister of India and Zulfikar Ali Bhutto, then President of Pakistan.

- (i) India was granted exclusive right of water flow over Ravi, Beas, Satluj
- (ii) Pakistan given water flow over Chenab, Jhelam and Indus.
- (iii) Indus water commission was constituted for overall progress. Please specify about its purpose, dispute resolution mechanism. It has been a long time since the treaty was formulated and it needs to be re-examined in order to deal with the ongoing issues.

(Write above this line only)

2. निम्न बिन्दुओं पर टिप्पणी लिखिए/Write comments on the following points.

1. राजस्थान के जैव विविधता क्षेत्र/Biodiversity Parks of Rajasthan

2. अल्पाइन पर्वत/Alpine Mountains

Biodiversity park of Rajasthan - it was established to

protect the biodiversity in in-situ and provides preserve

wild life there are as follows

*Please include  
steps  
biodiversity  
concept  
in content  
of Rajasthan*

Vanarajgarh biodiversity park - Jaipur

Jayangarh biodiversity park - Udaipur

Armaurongar biodiversity park - Jaipur

Jalpur biodiversity park (1) Baran biodiversity park

an other under biodiversity park an-2002 was  
constituted for its preservation

② Alpine mountains : These are formed during  
the tertiary period the young fold mountains

(1) Andes mountains - South America

*Please  
add diversity  
model  
answer  
for  
more  
(14)  
concrete  
approach*

And Dzhirg and Spalachu mountains - North snow

Himalaya - Snow

mountain peaks provide better life

(1) protective barrier

(2) natural resource

concrete approach plan of program work.

(Write above this line only)

3. निम्न बिन्दुओं पर टिप्पणी लिखिए/Write comments on the following points.

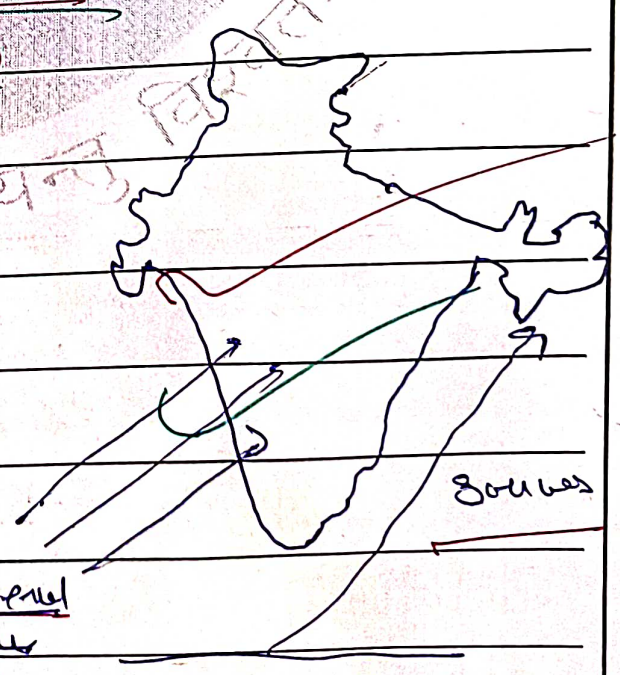
1. इंडियन ग्रीन बिल्डिंग काउंसिल/Indian Green Building Council
2. भारतीय मानसूनी पवनें व अंतः उष्ण कटिबंधीय अभिसरण क्षेत्र/Indian monsoon winds and intertropical convergence zone

(1) Indian Green Building Council - It was constituted under Environment Protection Act 1986. Est 17/2001

- (i) It helps in decreasing the environmental impact of work
- (ii) issued certificate for green buildings
- (iii) issue guidelines for construction green building
- (iv) It assess the impact of environment on atmosphere and climate change related aspect

(2) Indian monsoon wind: It originates in Indian sea bedies extends till equator it follows south-westward and hence as south-west monsoon wind.

It brings monsoon in India.   
 Please add AC in the box.   
 This comes beautiful in India.   
 Way to   
 Sub-tropical convergence zone in   
 with context   
 along equator belt also known as monsoon trough



originates over Equator region   
 shifted in respect to the Equator

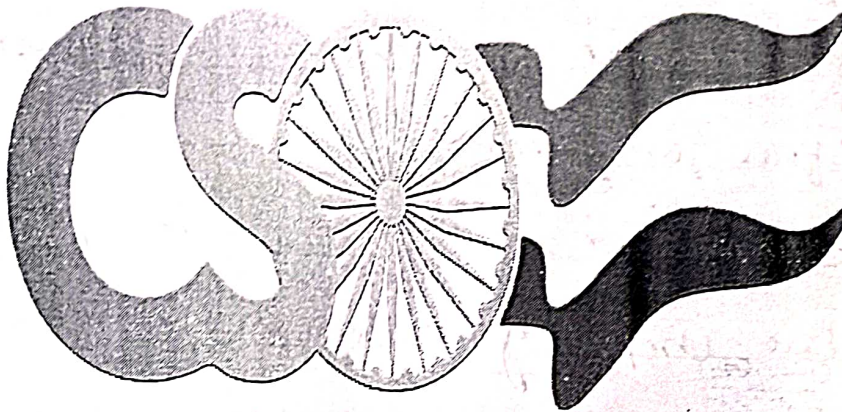
(Write above this line only)

# Samyak

An Institute For Civil Services

GET UPTO  
**100%**  
SCHOLARSHIP

“CIVIL SERVICES DAY” पर सम्यक् प्रस्तुत कर रहा है



TOP 100 विद्यार्थियों को  
LBSNAA (मसूरी)  
का FREE TOUR

## CIVIL SERVICES OLYMPIAD For RAS

**1st**  
**PRIZE**  
BIKE  
+  
**100%**  
SCHOLARSHIP



**2nd**  
**PRIZE**  
LAPTOP  
+  
**90%**  
SCHOLARSHIP



**3rd-5th**  
**PRIZE**  
MOBILE  
+  
**80%**  
SCHOLARSHIP



NCERT नवीन निर्माण  
COURSE  
**₹10000**  
FREE

+

MINIMUM  
**25%**  
SCHOLARSHIP

+

RAS PRE & MAINS  
SOLVED PAPERS  
BOOKLET FREE

TO ALL  
PARTICIPANTS

YOU CAN ALSO AVAIL SCHLOARSHIP @SAMYAKGURUKUL

परीक्षा की तिथि  
**21 APRIL**

परीक्षा का समय  
**9:00 से 10:30 AM**

रजिस्ट्रेशन शुल्क  
**₹51**

FOR MORE INFO  
**9875170111**

\*T&C APPLY