

Samyak

An Institute For Civil Services

RAS - 23 MAINS TEST SERIES

सिद्धि - 16/A16

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	33 $\frac{1}{2}$
Medium : English	Unit - II	12	40
E-mail :	Unit - III	12	35
Exam Date : 13 th Jan, 2024.	Total	37	108 $\frac{1}{2}$
Evaluator's Code	Reviewer's Code	Invigilator'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।
Candidates should not write more than the prescribed word limit in answers, violating this may result in deduction of marks.
- 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.

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	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 Solve all Questions..
2. Use proper full stop, comma etc
- 3.
4. Write organized answers
5. Intro - Body - Conclusion → use properly
- 6.
7. Use Diagrams, Blackboxes,
8. Avoid unnecessary writing.
- 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. बौद्धिक सत्यनिष्ठा

Intellectual Integrity

1 1/2

Integrity should be practiced through mind-thoughts and action according to vedic beliefs. In this regard, mind/intellectual integrity refers to the purity of means to be adopted for acquiring knowledge. ~~If someone speaks wrong about someone else behind his back, then he should not be angry at such a person.~~

2. जैन दर्शन का 'अस्तेय' संबंधी विचार क्या है? वर्तमान में इसकी प्रासंगिकता बताइये-

What is the idea of 'Asteya' of Jain philosophy? Explain its relevance in present time.

1

'Asteya' → non-possession is one of the 5 Mahavrats to be followed under Jain philosophy. ~~not to steal someone's money, property, or anything.~~ In present times, it forms the basis of public welfare, Corporate Social Responsibility and renouncing materialistic practices. ~~through thought-word action that is not to deprive anyone of his rights.?~~

3. सर्वपल्ली राधाकृष्णन के दर्शन पर प्रकाश डालिए, उनका दर्शन एक प्रशासनिक अधिकारी के लिए किस तरह उपयोगी है?
Throw light on the philosophy of Sarvepalli Radhakrishnan, how is his philosophy useful for an administrative officer?

9

Sarvepalli Radhakrishnan laid emphasis on developing intellectual and educated society.

In administration this may be helpful in creating educated and awakened society: increase

literacy rate and thus economic-social-political

(Write above this line only)

justice gets delivered

4. नैतिक अभिक्षमता की अवधारणा को स्पष्ट कीजिए-
Explain the concept of moral aptitude.

1

-persons ability understand and demonstrate ethical principles

Aptitude is the performance of action with own perception. Moral aptitude is the performance of moral actions concerning maximum welfare and acceptance from society. Skill to make ethical choices and action in an ethical manner.

(Write above this line only)

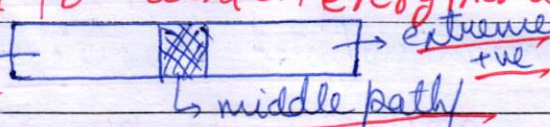
5. अरस्तु के 'मध्यम मार्ग सिद्धान्त' को समझाइये-
Explain Aristotle's 'Middle Path Theory'.

1/2

Aristotle propounds to follow middle path out of extremes. i.e., path of golden mean.

virtues according to which every moral virtue is a state

between two extreme viewpoints?



→ between violent and in-action choose middle path.

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

1. "आपको क्या करने का अधिकार है और आपको क्या करना उचित है, के बीच के अंतर को जानना नैतिकता है:" लोक प्रशासन और निर्णय लेने के संदर्भ में इस उद्धरण के महत्व पर चर्चा कीजिए-
 "Ethics is knowing the difference between what you have the right to do and what you are right to do"
 Discuss the importance of this quote in the context of public administration and decision making.

In administration, public official have to make decisions on every step, although he/she is provided with plenty of rights but in democratic, welfare oriented society choosing ethical way lead to good governance.
for example: During Covid, migrants were stopped to move according to rules, here a good administrator tries to strike balance between rules and morality → provide facility of food & shelter to migrant.

Accountability and responsibility.
 Ethical Dilemmas
 Long term sustanability?

2. "लोक सेवा के बदलते स्वरूप और लोक सेवकों से उच्च अपेक्षाओं के साथ, सार्वजनिक क्षेत्र में आचार संहिता अधिक महत्त्वपूर्ण हो गई है।" टिप्पणी कीजिये-
 "With the changing nature of public service and higher expectations from public servants, the code of conduct in the public sector has become more important." Comment.

In such diversified and large demography it is necessary to implement code of conduct as →

Commitment of civil servants?

- (i) Rising humanitarian concerns.
- (ii) Cases of sexual harassment are increasing
- (iii) Moral pressure and ethical dilemma creates situation of conflict and depression for public officer.
- (iv) It will put limits on rights provided to them.
- (v) Increase accountability of officials.

most employees will work in public interest and avoid appropriate behaviour?
 Code of conduct
 is a written letter?

3. नैतिक सुखवाद क्या है? मूल्यांकन कीजिए-
What is Ethical hedonism? Evaluate.

2

Hedonism refers to emphasises on present living with happiness. It declines to think of past and future. — Happiness is supreme good?

Happiness is the basis of determination
It relies on thoughts of "Yavat Jeevam, Sukham Jeevam. auspicious and inauspicious?
Rinam Krutva, Gitam peevam" of similar to Ajivak philosophy.

Under this one should practice only those actions that lead to provide maximum happiness without thinking on consequences. — Evaluation?

It supports materialistic actions in ethics.

(Write above this line only)

4. व्यक्तिगत नैतिकता व व्यावसायिक नैतिकता के बीच अंतर स्पष्ट कीजिये-
Explain the difference between personal ethics and professional ethics.

2/5

Personal Ethics

Professional Ethics

① It is developed through personal experience & knowledge

① Provided through rules and codes of profession

② It may change with time. learn + from family, society and friends

② Generally remains one/
Rests upon the individuals
unidirectional well as the

③ Morally accepted actions at personal level

③ May strike with vary person actions/level
Professional ethics game theory

④ Not codified

④ Codified

⑤ To practice religion is personal ethics

⑤ A doctor's profession is to cure patient, regardless of his/her nationality

(Write above this line only)

— Conclusion —

5. भगवद्गीता एवं काण्ट के नीतिशास्त्र में क्या समानता-असमानता है? बताइये-

What are the similarities and differences between Bhagavad Gita and Kant's ethics?

22

Similarities

Differences

The pure wisdom of Gita

① Swadharma (Gita) and

① Gita does not emphasised on

"Do the duty for sake of it" (Kant)

purity of both means & ends

② Krit pranash (Gita)

while Kantian approach → Teleological

Dutifulness (Kant)

② Gita does not completely

③ Does not think of
fruits [Both].

deny of fruits while Kant does.

④ Purity in work.

③ Gita → moral action, Kant → action

⑤ Follow your duty.

④ Gita: Public welfare; no such approach

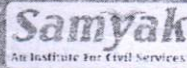
Freedom of will?

⑤ Gita: Non-possession; No such

(Write above this line only)

approach by Kant.

RAS-2021 RESULT



सम्यक मार्गदर्शन-सर्वश्रेष्ठ परिणाम

सम्यक ने पुनः एवा इतिहास, सम्यक सितारों ने फहराया परचम

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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. गांधीवादी नैतिकता से आप क्या समझते हैं? विभिन्न संघर्षों के समाधान में गांधीवादी नैतिकता की भूमिका की विवेचना कीजिए-

What do you understand by Gandhian ethics? Discuss the role of Gandhian ethics in resolving various conflicts.

Gandhian philosophy is double edged sword?

Gandhian ethics: It is the [↑]principles to be

followed by an individual as per Gandhian

approach like- Swadharma, Non-violence, etc.

Gandhian ethics' role to resolve conflicts -

① Samuday: To uplift the poorest for welfare:

do that action that make impact on the poor.

② Non-violence: To maintain peace, practice

non-violence till last resort.

③ 7-Social Sins: Ethical principles [↑]to be

practised → Science without humanity, Politics ^{without} principles, etc

④ Swadharma: non-interference reduces conflict

⑤ Asteya: non-possession: To practice economic

welfare; reduce hoarding; resolves [↑]conflict.

⑥ Harijan Seva: Those actions should be practical

that creates equal distribution of resources.

There are 11 values of Gandhi to be followed

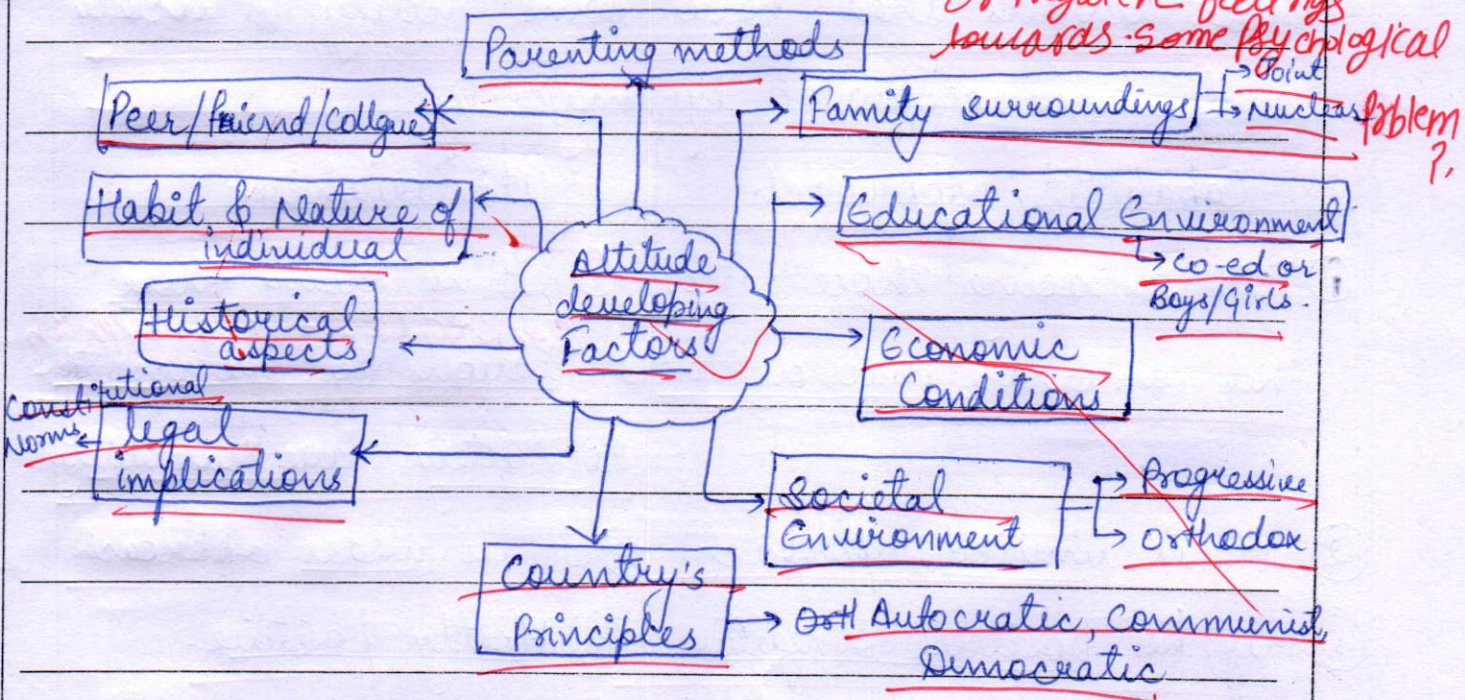
by every one, such principles reduces crisis of conflict with moral development.

2. "अभिवृत्ति एक छोटी सी चीज है लेकिन इससे बहुत फर्क पड़ता है।" अभिवृत्ति के निर्माण में योगदान देने वाले कारकों और अभिवृत्ति के विभिन्न कार्यों की चर्चा करें-
- "Attitude is a small thing but it makes a big difference." Discuss the factors contributing to the formation of attitude and various functions of attitude.

(5)

Attitude refers to the perception of an individual to thought and analyse his/her surroundings.

Factors contribute to develop attitude - Presence of positive or negative feelings towards some psychological



Functions of Attitude :-

- ① Attitude perceives person to implement his thoughts.
- ② Actions are done according to attitude. - To maintain a persons self.
- ③ Positive, Ethical, Moral attitude leads to esteem? development of Charismatic personality. - Utilitarian function?
- ④ Negative, unethical, Immoral attitude brings despotic & autocratic behaviour. - Knowledge function?

Thus, attitude differs accordingly and leads to impact the action of an individual.

- conclusion -

3. क्षमतागत दृष्टिकोण, उपयोगितावाद से कैसे भिन्न है? चर्चा कीजिए-
How does the capability approach is different from utilitarianism? Discuss.

5

Capability Approach: It refers to follow those actions which one can perform under his limits.

Utilitarianism: To follow and practice only those actions that have some utility in society and are acceptable by majority.

Capability Approach

Utilitarianism

① It is doing those actions that can be are under one's control

① It is doing those consequentalist approach actions that are acceptable to society / have some utility.

② It is limited approach.

② It is wider approach

③ May be positive or negative.

③ Mostly positive.

④ Performing action is justified at individual level.

④ Justification of action at societal level.

⑤ Its negative implications may lead to chaotic situation

⑤ Its implication are always according to society.

⑥ Matter of rights & power

⑥ Matter of duties & morality

Both are having their own applications in administration

→ capability → to practices actions are under one's authority.
→ utilitarianism → public welfare should be concerned.

Conclusion

(Write above this line only)

Unit - II (70 Marks)
 (यूनिट - II) (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 का उत्तर 15-15 शब्दों में दें। प्रत्येक प्रश्न के 2 अंक निर्धारित हैं।

1. अजैव निम्नीकरणीय अपमार्जक क्या है? उदाहरण सहित समझाइए।
 What is non-biodegradable detergent? Explain with examples.

2

combinations

These are those molecular structure which are harmful to environment as degradation of these is very hard or impossible or slow with natural process.

Example : Sodium Methanoate, Sodium lauryl Sulphate, etc.

(Write above this line only)

2. B6GA के उद्देश्य व महत्व पर प्रकाश डालिये-
 Throw light on the purpose and importance of B6GA.

(Write above this line only)

3. इसरो के अनुसार प्रक्षेपण यान की पीढ़ियों का वर्गीकरण कीजिये-
 As per ISRO, classify the generations of launch vehicle-

1

<u>launch vehicle</u> Experimental Operational Launch vehicle for future?	<u>SLV</u> → 5-stage fuel engines Satellite launch vehicle	I st Generation
	<u>ASLV</u> → 4-stage fuel engines Augmented SLV	II nd Generation
	<u>Polar SLV</u> → 4-stage → 2 solid & 2 liquid	III rd Generation
	<u>GSLV</u> → 3-stage → solid, liquid, Cryogenic Geosynchronous SLV	IV th Generation

4. निम्न पौधों के औषधीय गुण बताइये-
- a. वज्रदंती b. खूबकला c. रोहिड़ा d. कालमेघ

Tell the medicinal properties of the following plants-

- (i) Vajradanti (ii) Khoobkala (iii) Rohida (iv) Kalmegh

- (i) Vajradanti : Aesthetics : Skin glowing - Dental gum
- (ii) Khoobkala : Improves digestion
- (iii) Rohida : Anti-helminthic, in pregnancy.
- (iv) Kalmegh : Anti-biotic, in curing fever
 also included in Ghar-Ghar Aushadhi Yojana.
- (Write above this line only)

5. इंद्रजाल (ड्रोन रक्षा गुम्बद) की विशेषतायें बतायें-

Tell the characteristics of Indrajala (drone defense dome)-

- Indrajala → developed by DRDO (indigenous) Cyrene Robotics
- To safeguard defence system from cyber theft, attacks and hacking, through drone.
- Deployed in all the three wings of Indian Military → Airforce - Army - Navy.
- (Write above this line only)

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

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1. रोगाणुरोधी प्रतिरोध के कारण बतायें तथा रोगाणु रोधी प्रतिरोध से निपटने के लिये भारत द्वारा किये गये प्रयास बतायें-

Explain the reasons for antimicrobial resistance and explain the efforts made by India to deal with antimicrobial resistance.

(3)

Antimicrobial Resistance : when body starts showing resistivity against a fix dose of antibiotics ; to cure disease higher dose is taken. *Lack of effective*

Reasons → self-medication
→ not following complete medication *regulations.*
→ Repetitive intake of specific dose. *uncontrolled discharge of*
→ Drug intake without medical practitioner's advice. *untreated*

Efforts → ① MDR-TB for TB patients in India *urban waste?*

② Regulation on Medicals ③ Guidelines from drug intake dept.

(Write above this line only)

2. क्वांटम टेक्नोलॉजी क्या है? राष्ट्रीय क्वांटम मिशन, क्वांटम प्रौद्योगिकी क्षेत्र में भारत के अनुसंधान और विकास प्रयासों के लिये एक महत्त्वपूर्ण कदम का प्रतिनिधित्व करता है। स्पष्ट करें-

What is quantum technology? The National Quantum Mission represents a significant step forward in India's research and development efforts in quantum technology. Explain.

(3)

Quantum Technology → works on the principle of -
① Superimposition ② Entanglement ③ Interference.

→ It works using 'qubits' [Combination of 0 and 1.]

National Quantum Mission *Lack of effective regulations. uncontrolled discharge of untreated urban waste?*

① Aimed to include India among the Quantum developed countries → USA, China only. *muscal manifesto?*

② Provide ample infrastructure and research fund.

③ QUEST as training programme to enhance skill.

④ This will help India to collaborate with the developed technologies.

(Write above this line only)

3. बायोटेक्नोलॉजी अनुसंधान और नवाचार परिषद् (BRIC) क्या है? इसके उद्देश्यों को रेखांकित कीजिए-
What is Biotechnology Research and Innovation Council (BRIC)? Underline its objectives.

3

BRIC is founded to amplify and regulate the research and development related to biotech

PPP? advancements in India. Research excellence sustainable practices?

Objectives: ① To foster research based on biotech

② Provide assistance and skill to desired candidates

③ Creating positive environment for research

④ Boost Innovation in Biotech sector.

→ It is applicable in - Medical sector → PCR, Gel electrophoresis, Food sector → Flour, Sau, tomato, Aqui sector → Food enhancement / Preservation.

4. Wi-Fi 7 के बारे में बताते हुए वाई-फाई की पीढ़ियों की तुलना कीजिये-
Explain about Wi-Fi 7, compare the generations of Wi-Fi.

2/1/2

wifi → "wireless fidelity" is providing internet access without using cable system connectivity.

wifi 7: Satellite based private wifi connection

with high speed internet availability. Speed 36 Gbps?

① wifi → Range of 50 kilometers

Backward

② wifi max → Range upto 500 kms. compatibility

③ wifi → light fidelity : in room, can't cross solid medium

④ wifi 7 → Satellite based private, high speed wifi connection.

MULTI TRUNK operation?

(Write above this line only)

Part - C

(40 Marks)

भाग - स

(40 अंक)

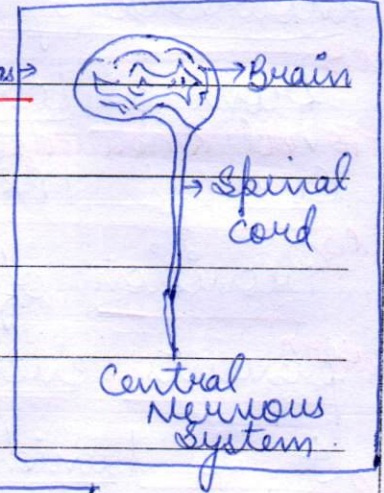
Note : Attempt all questions. Answer the following questions in 100 words each. Each Question carries 10 marks.

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

1. मानव तंत्रिका तंत्र का वर्गीकरण करते हुए प्रतिवर्ती क्रिया का वर्णन करें तथा तंत्रिका तंत्र संबंधी रोगों के प्रकार बतायें-

While classifying the human nervous system, describe the reflex action and tell the types of diseases related to the nervous system.

Human nervous system is classified as



Nervous system

Central Nervous system → Brain + Spinal cord

if injured ~~can~~ causes permanent paralysis

Peripheral Nervous system (all except Brain & Spinal cord)

Autonomic → always occurs active → functioning of heart, lungs

Symptomatic

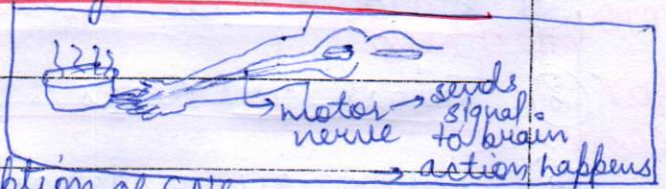
voluntary → under human control → walking, running

Involuntary → not under control → sneezing, yawning

Reflex Action → It is the response shown by human body when faced abnormal condition.

ex → Touching hot plate → hand gets back on its own.

Diseases Related to Nervous system



① Paralysis → on disruption of CNS.

② Coma → condition of not action in body.

③ Myasthenia Gravis → auto immune disorder → nerve endings rupture.

④ Dementia : Damage in brain related neurons.

2. पारम्परिक ज्ञान/जानकारी (Traditional knowledge) क्या है? वर्तमान आईपीआर व्यवस्था में पारम्परिक जानकारी को किस प्रकार संरक्षित किया जा सकता है? राजस्थान राज्य बौद्धिक संपदा अधिकार नीति (2021-26) का संक्षिप्त विवरण दें-

What is traditional knowledge/information? How can traditional knowledge be protected in the current IPR regime? Give a summary of Rajasthan State Intellectual Property Rights Policy (2021-26).

The world intellectual property organization (WIPO) defines traditional knowledge as the knowledge, skills, and practices of a particular region practiced from a long time / various generations.

Current IPR regime: Provision of section 3(d) in patent Act that prevents evergreening and biopiracy.

It is punishable offence under this section.

India got patent of Turmeric, Neem fighting against USA and UK for biopiracy respectively.

Rajasthan State Intellectual Property Rights Policy (2021-26) →

- ① To provide recognition to local and traditional practices with help of patent, GI tags, etc
- ② Build digital infrastructure: Easy availability of knowledge
- ③ Tribal practices: to be research and recognized.
- ④ Awareness regarding legal implications to preserve traditional knowledge of Rajasthan.
- ⑤ Flourish research & development to lead in this sector among Indian states → skill training, technological use, Policy implementation

3. संक्षिप्त टिप्पणी करें-

a. शांतिस्वरूप भटनागर

b. असीमा चटर्जी

c. वराहमिहिर

d. एडवलथ कक्कत जानकी अम्माल

e. टेसी थॉमस

Comment Upon-

a. Shantiswaroop Bhatnagar

b. Asima Chatterjee

c. Varahamihir

d. Edavalath Kakkat Janaki Ammal

e. Tessa Thomas

5

(a) Shanti Swaroop Bhatnagar → Founded CSIR in India.

↳ Renowned scientist in field of physics.

'SSB Award' is named after him → 'Nobel of Science in India'
in 7 different fields of science.

(b) Asima Chatterjee → Bengali scientist

↳

Indian organic chemistry scientist

(c) Varah Mihir → famous astrophysics

↳

worked on astronomical research.

Panchasiddhantika Vrihanajataka.

Vrihat samhita.

(d) E. K. Janaki Ammal → Renowned biotech scientist

↳

worked on principles of biotechnology

Padam shri Award in 1977

(e) Tessa Thomas → Rocket woman of India.

↳ worked as engineer in Agni missile system.

↳ Research & contribution in field of

Rocket engine development.

missile woman's guidance scheme for long-range missile systems.

4. संक्षिप्त टिप्पणी करें-

Comment Upon-

a. पीला धुंआ/Yellow smoke

b. AMRIT (IIT मद्रास)/AMRIT (IIT Madras)

c. जरायुज अंकुरण/Uterine germination

d. जीवामृत व पंचगव्य/Jeevamrit and Panchagavya

e. इंटरनेशनल स्पेस स्टेशन (ISS) का महत्व/Importance of International Space Station (ISS)

(a) Yellow smoke - The smoke generated of nuclear/atomic explosion refers to yellow smoke. It is very dangerous as can cause mutation and skin related harmful impacts. NO, NO_2

(b) Amrit

(c) Uterine Germination → refers to the medical complication when the zygote gets fertilized again. In this case, termination of pregnancy is performed as child born will be defected.

(d) Jeevamrit & Panchgavya → Components of Organic farming.
Jeevamrit → bio fertilizer → Earthworm/vermi compost.
Panchgavya → Mixture of cows - Urine + dung + milk products.

(e) International Space station → To launch ISS will reduce the time and cost of satellite launching from earth. USA - China - Russia - UK - France → have their own.
India is going to launch its own space station by 2026.

Unit - III	(65 Marks)
(यूनिट - III)	(65 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 का उत्तर 15-15 शब्दों में दें। प्रत्येक प्रश्न के 2 अंक निर्धारित हैं।

1. जुरैसिक काल में घटित प्रमुख जैविक घटनाओं को उल्लेखित कीजिये-
Mention the major biological events that occurred during the Jurassic period.

1

Jurassic period

① K-T event

*predominance of conifers
evolution flowering plants*

② "Age of Dinosaurs"

③ Ample oxygen and vegetation in environment.

④ Volcanic eruptions were repetitive.

(Write above this line only)

2. मेंटल संरचना (Mantle) के बारे में बताइये-
Tell about the structure of Mantle.

1

Mantle is middle layer of Earth →

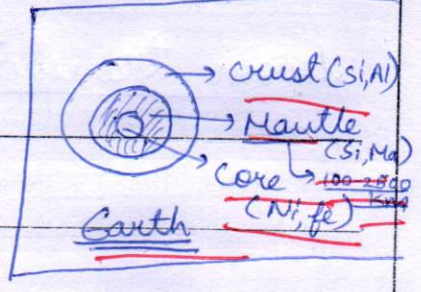
① Upper Mantle

② Lower Mantle

molten state

molten solid state

→ source of earthquakes, volcanic eruptions.



upper density - 3.9 gm/cc

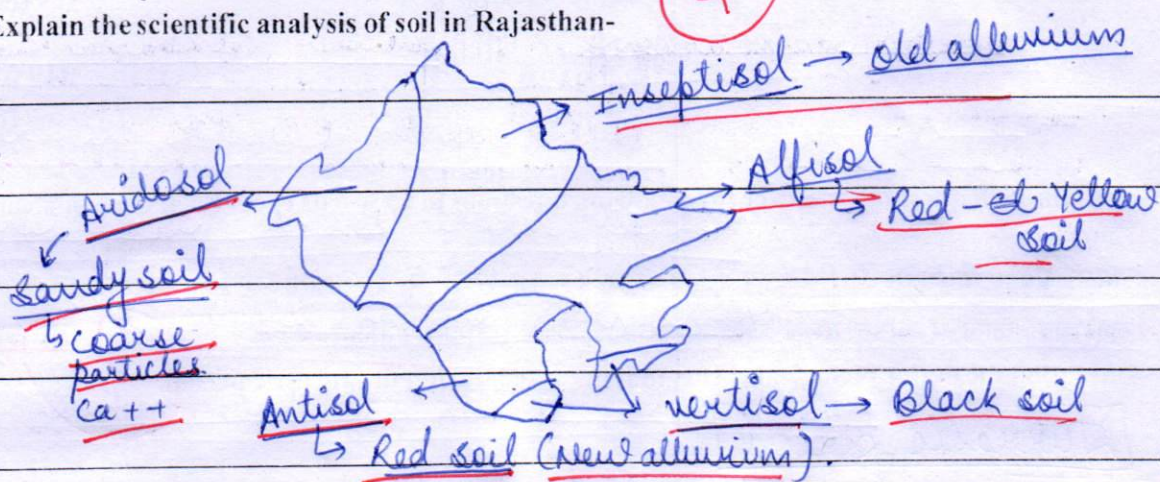
→ Rich in Silicon and Magnesium element.

(Write above this line only)

lower layer density - 5.5 gm/cc

3. राजस्थान में मृदा का वैज्ञानिक वर्गीकरण स्पष्ट करें-
Explain the scientific analysis of soil in Rajasthan-

9



(Write above this line only)

4. डांडेली वन
Dandeli Forest

Forest of ^{western} Southern Rajasthan where ~~veg~~ rich flora vegetation is scattered, very thin plants are found.

Deciduous having very less leaves to prevent from transpiration.

(Write above this line only)

5. ग्लोबल रिवर सिटी एलायंस (GRCA)
Global River City Alliance (GRCA)

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

1. राजस्थान वानिकी एवं जैव विविधता विकास परियोजना के बारे में जानकारी दीजिए-

Give information about Rajasthan Forestry and Biodiversity Development Project

RFBD project is being implemented by Ministry of Forest development and resources in Raj. In this

11/04
AFD

① To recognize more Biodiversity Conservation Reserves

at present 36

55 lakhs
Plants

② Increase flora and fauna in state

veget cover (9%)

wild life projects

disturb
biodiversity

③ To promote environmental conservation through afforestation

④ collaboration with tribal people to get support

13 districts

⑤ Increase vegetation cover through BOLD (Bamboo implantation) scheme, Tree outside Forest Area, etc.

(Write above this line only)

2. यूरेनियम माइनिंग सेक्टर में राजस्थान की स्थिति का विश्लेषण करें-

Analyse the situation of Rajasthan in uranium mining sector.

uranium is recently detected by the GSI in the Nagaur and Sikar (Rohil Belt) of Rajasthan.

108646 Hectare
land in

mining of uranium is minorly conducted in the southern Rajasthan but was not much considerable

Rohil 06

Now, with this newly mined detected region,

blendela

tehsil

06 Sikar

mining will be conducted sooner by government of India, and will contribute in GDP and

06 million

tonne

uranium

found.

thus promote economic growth.

(Write above this line only)

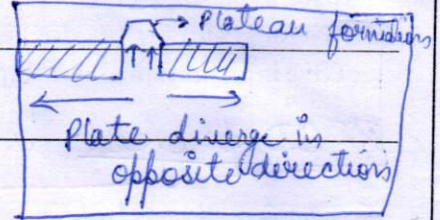
- use ?

3. पटल विरूपणी पठार के प्रकारों का वर्णन कीजिए-
Describe the types of diastrophim plateau.

2 1/2

Diastrophic plateau : Constructive plateau

This is formed when two plates fall apart from each other and led to the formation of newly uplifted land as plateau.



Example - Colorado plateau (USA)

Inter mountain plateau ?

Piedmont Plateau ?

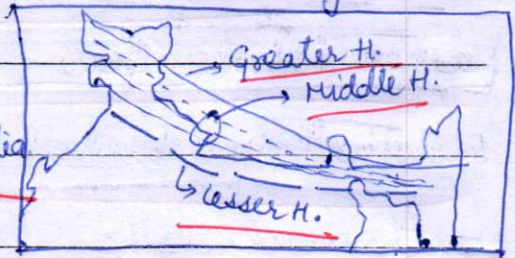
Continental Plateau ?

(Write above this line only)

4. "लघु हिमालय सतत रूप से स्थिर नहीं है।" इसकी श्रेणियों का वर्णन करें-
"Lesser Himalaya is not permanently stable." Describe its ranges-

3

Lesser Himalaya also known as outer Himalaya is formed due to debris of Greater Himalaya, thus it is not permanently stable and categorized under 'Zone V' in India.
→ Frequent earthquakes felt here.



- Ranges: ① Shivalik Range → Himachal situated parallel to the direction of the orocline
② Shivalik Range → Punjab-Himachal.
③ Dehradun valley region, → Gahawal Range Kumaon Range
④ Kalapani range Northern part is of low Himalayas.

(Write above this line only)

and hills have also been slope (forming plains) formed in it?

5 मैंग्रोव वन विकास के लिये अनुकूल दशायेँ बताइये। भारत में यह वन किन क्षेत्रों में पाये जाते है?
Explain the favorable conditions for mangrove forest development. In which areas are these forests found in India?

3/2

Mangroves: These are marshy land with specific vegetation.

Trees having 'pneumatophores'

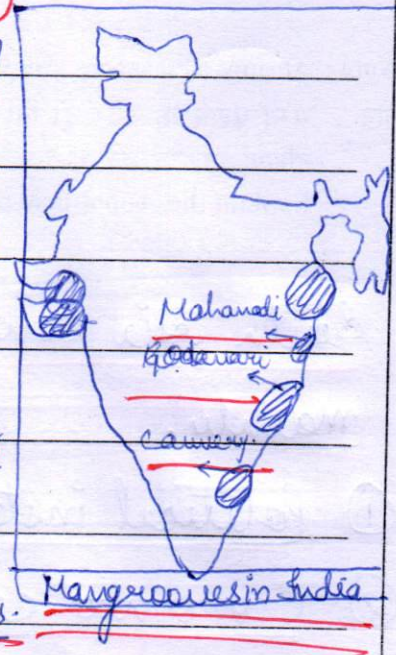


largest Mangroves in India: West

Bengals Sunderban Region → Sundari tree & Bengal tiger

Other Region: Kutch region of Gujarat,

Odisha - Andhra - T.N River delta regions.



Mangroves in India

Favourable condition → delta region
→ Marshy land
→ steep slope, water stay for longer time.

RAS-2021 RESULT

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सम्यक मार्गदर्शन - सर्वश्रेष्ठ परिणाम
सम्यक ने पुनः स्वा इतिहास, सम्यक सितायेँ ने फइराया परचम

राजस्थान में पहली बार **TOP 10 में 9 TOPPERS** **650+ SELECTION**

1st RANK VIKRANT SHARMA	2nd RANK PRIYA BALI	4th RANK VISHNJEET	5th RANK BHARTI GUPTA	6th RANK AKANISHA DUBEY	7th RANK RANJANA CHAUDHARY	8th RANK SHUBHAM SHARMA	9th RANK NIDHI DODARIA	10th RANK SATYA RAJAYAN
--	--	---	--	--	---	--	---	--

Toppers एवं विशेषता से जानिए सफलता की सही रणनीति

सिविल सेवा की तैयारी को समर्पित संस्थान

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9875170111

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. दक्षिण एशिया की भू-राजनीतिक समस्याएं बतायें एवं उनका भारत पर प्रभाव बताइये-

Explain the geopolitical problems of South Asia and its impact on India.

6

South Asia consist of "Indian Subcontinent countries mainly"

- ① Political instability : In Pakistan, Afghanistan, Nepal.
- ② Economic crisis : Sri Lanka, Pakistan.
- ③ Reg Radicalisation : No stable state policies.
- ④ Climate change : oceanic level rise → Sri Lanka, Maldives.
- ⑤ Terrorism : in N-W countries of India, re-instate of Taliban in Afghanistan.
- ⑥ Intervention of China : through BRI project infrastructural development (esp. in ^{T-CPEC} Pak region)
- ⑦ ^{cross} Border terrorism : Drug trafficking, Human trafficking, Cattle corridors, porous borders, border disputes (India-Pak-Nepal-Tibet).

India as Regional Superpower plays role of ^{good} Elder brother and tries to balance this region
[Bangladesh - conclave exchange, Line of credit to Nepal, Sri Lanka, Bhutan, etc] and promote develop-
 -ment

2. "प्रोजेक्ट टाइगर के 50 वर्ष पूरे होने पर, इंटरनेशनल बिग कैट एलायंस (IBCA) का अनावरण किया गया।" प्रोजेक्ट टाइगर की सफलता पर विश्लेषण कीजिए तथा भारत में 'बिग कैट्स संरक्षण' का महत्व बताइये- "On completion of 50 years of Project Tiger, International Big Cat Alliances (IBCA) was unveiled." discuss the success of Project Tiger, and 'Big Cat Conservation' in India. Explain the importance of 'Big Cats Protection'.

5 1/2

Big cats are of 7 categories (Tiger - Lion - Panther - Leopard - Cheetah - Jaguar). Under Project Tiger launched in 1973, India committed to double Tiger's population by 2015 (IX²) which was achieved successfully.

Conservation of Biodiversity.
Economic importance?

At present India is having more than 70% of global tiger population. [>2500 Tigers in India].

Ecosystem
Service

India is having all 7 categories of big cats after re-introduce of Cheetahs from Africa in 2022.

Karna
Singh

IBCA : was launched by PM of India during G-20 conference which is joined by Nepal - Bhutan, etc.

and
Kallash

This project aimed at conservation and breeding : increase their number in ecosystem.

Sankha

Importance

asther

Big cats are the 'key stone species' at the top carnivore stage of ecological pyramid.

manob

They are necessary in food web & ecology's continuation.

India.

3. अन्तर्राष्ट्रीय उष्ट्र वर्ष 2024 के उद्देश्य बतायें तथा उष्ट्र वंश का महत्त्व स्पष्ट कीजिये। राजस्थान में ऊंटों की संख्या लगातार घटने के कारणों पर चर्चा करें तथा राजस्थान सरकार द्वारा ऊंट संरक्षण हेतु किये प्रयासों का संक्षिप्त विवरण दीजिए-

Explain the objectives of International Camelids Year 2024 and explain the importance of Camelids. Explain the reasons of declining number of camels in Rajasthan and give a summary of the efforts taken by the Rajasthan government to conserve the camel.

International Camelids Year, 2024 by UN is aimed to promote and preserve the camel species globally.

Importance :-

- In ecological balance - *Less use in transportation?*
- to maintain food web.
- Key species of xerophytic area.
- Importance through culture. *Raj. State*
- Ecological diversity. *Animal stocks*

- National camel Research Centre (2 Oct 2016) ?

In India, two categories of camels are found -

- ① Camelus dromedarius
- ② Camelus bactrianus → double hump

- camel development Program (2 Oct 2016) ?

↳ in Rajasthan
↳ in Kutch region
↳ Can swim in water.

Raj. have 84% of camel population of India.

Reasons of declining

- Urbanization → concrete roads.
- Not profitable source of income for Raikas.
- Ecological disturbances.
- Protection is not practiced properly.

Efforts taken by Govt. of Rajasthan

- Ushtra Sansrakshan Yojana, 2022 → Rs 10,000 to on birth of camel.
- Camel milk by Amul → dairy at Bikaner.
- Camel Research Centre @ Bikaner.
- Assistance to Raika / Rebari to conserve camel.
- 'Camel Corp' in BSF.