

(To be filled by candidates)

Name of Candidate:

Roll Number: 20M018..... Test Centre: Vijayanagar,.....

Date: 18/02/2020 Contact details:

KPSC MAINS TEST SERIES-2020

NammaKPSC Academy

Test 17 - PAPER - 3

Time Allowed: 3 Hours

Maximum Marks: 250

GENERAL INSTRUCTIONS

This is Question-Cum-Answer (QCA) Booklet. Immediately on receipt of the booklet, please check that this QCA booklet does not have any misprint or torn or missing pages or items, etc. If so, get it replaced by a fresh QCA booklet.

Candidates must read the instructions on this page and the following pages carefully before attempting the paper

Candidates should attempt all questions strictly in accordance with the specified instructions and in space prescribed under each question in the booklet. Any answer written outside the space allotted may not be given credit.

A Separate Question paper is given to the candidate which can be taken by the candidates after conclusion of the exam.

(FOR OFFICE USE)

Date and signature of invigilator

Evaluator Code:

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IN ASSOCIATION WITH BANGALORE IAS ACADEMY

VIJAYANAGAR / HEBBAL, BANGALORE. PH:9886151564/9886777417/080-42103963

(to be filled by Examiner only)

No.	Marks	Q.No.	Marks	Q.No.	Marks	Q.No.	Marks
1	7	6	10	11	1	16	5
2	8	7	0	12	3	17	5
3	4	8	2	13	4	18	0
4	3	9	6	14	7	19	3
5	2	10	8	15	5	20	0
						21	1
						TOTAL	82

GENERAL COMMENTS

Read the Q. understand and stick to
what the Q is asking/demanding
Keep Intros short

1. Examine the Livestock sector in India and its socio-economic benefits. (12 Marks)

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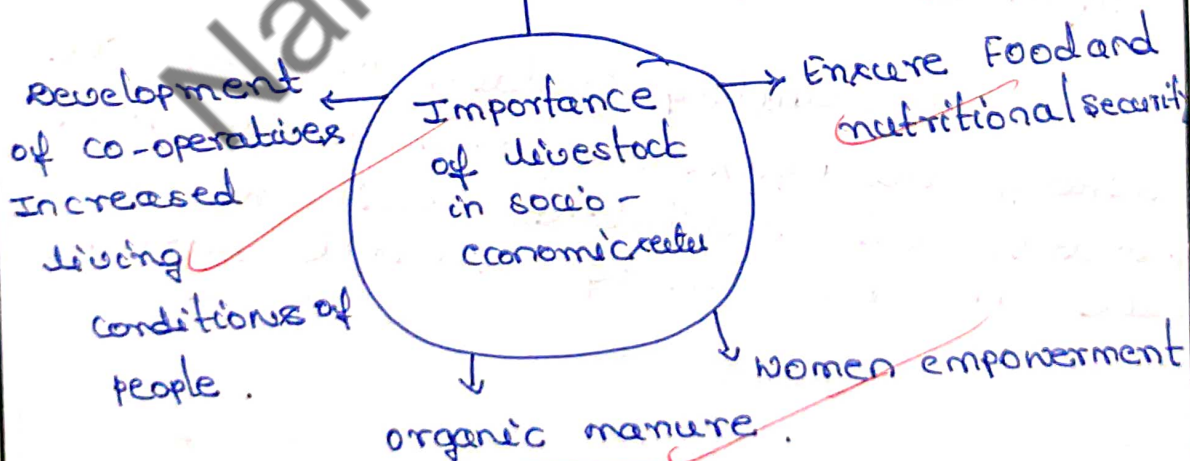
:- Livestock sector is ~~the~~ one of the important sector, it involves rearing and domestication of animals for productive milk and milk products, meat and manure purpose

Livestock sector provides alternative employment opportunities for rural people. and it contributes to the 4% of GDP (agricultural GDP) 25% of Agr GDP

* India has largest buffalo population in the world, and 3rd largest cattle population, 1st goat population and 4th in term of poultry industry

HLBDAL, HADAPNAGAR
ESTD 2014

provides alternative employment for rural masses



Break down the answer

- Intro
- Socio-economic Benefits
- Challenges
- Schemes
- Empowerment
- Poverty
- Income
- Conclusion

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- (*) It reduces the dependence of agriculture
(*) provides export potential of milk and
meat industry (17% world's demand)
(*) restoring nutritional base of soil.

* global mission, SUTRAPIC and
institutional credit for practicing livestock
rearing is encouraged by govt.
Still some challenges associated with
livestock sector;

- (1) practicing traditional rearing practices.
- (2) overstock population leads to grazing,
leads to environmental destruction.
- (3) Traditional (or) Indigenous cows not
yield much. Yield and meat varieties.
- (4) Article 43 (against cow slaughter)
- (5) Competition from New Zealand, Bangladesh
in world market.

By adapting certain measures like
sanitation, and phytosanitary measure, and hybrid
varieties, and institutional credit we can
make potential use of livestock sector.

Feedback (Do not write anything here)			
Structure/Flow	2	Content/Information	2
Understanding/ Relevance	2	Total	7

2. Examine Fisheries Sector in India and its socio-economic benefits.
(12 Marks)

Candidates
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Fisheries sector is one of the potential areas for growth. India had 7500 km coastline, with suitable climatic condition, thus by making use of it provides both domestic and international market.

→ 5% of ^{Agri} GDP is contributed by Fisheries in India.
only 1% of total GDP of Country

Benefits: —

- (1) provides abundance of employment opportunities by Fisheries sector.
- (2) main sources of vitamins and nutrients. very much in demand. main source?
- (3) Has huge export demand from USA, UK, Central Asia. earns foreign exchange.
- (4) Important source of medicine, and cosmetic products.

→ govt has also promoting Fisheries through Blue revolution (AFYP) and FA DP (Fisheries agency development program).

- FINGERLINGS
- Recent budget it promoted ornamental and Fingerlings of fisheries.
 - providing loans, and support for sidehustles.
 - karnataka govt matsya sampada scheme.
 - Pradhan mantri matsya sampada scheme.
- PM Matsya Sampada Yojana

challenges:-

- (*) Traditional / old methods of used in fishing are unscientific.
- (*) Indiscriminate fishing → during breeding seasons leads to loss.
- (*) no-modern fishing vehicles for specific species catching such as Tuna fish cannot be caught. Problem of Bottom trawling.
- (*) Better variety of breeds are needed.
- little geographical coastal area provides more opportunities for achieving blue revolution govt can make use of doubleing of agricultural income by sustainable measures.

Feedback (Do not write anything here)			
Structure/Flow	2	Content/Information	2
Understanding/ Relevance	2	Total	6

Most important: 2°C Temperature Increase

3. The Paris Agreement reached at the 2015 United Nations Climate Change Conference is being called as a historic turning point, it is also being criticized on many grounds. In this context, discuss the outcomes of the Paris Agreement. (12 Marks)

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:- Climate change is the challenge of entire world is facing in the 21st century.

it is a treaty / convention,
The UNFCCC is main agency for taking up of climate change initiatives, from its establishment, in 1992 (some club) it had working towards climate change counter measures. one such initiative is; Paris agreement 2015;

(*) Paris agreement is known for historic turning point, because, all the countries accepted Paris agreement and become the signatories to the agreement (193 members)

(*) It provides for revision of INDC - Intended national determined principles.

(*) Committed to produce energy from non-renewable sources Eg: solar mission.

Eg: (*) ISA

(*) polluters pay principles?

where is Paris Agreement

Not all UN members are signatories yet

The 100 \$ billion climate fund
INDCs by 2020
Voluntary Cooperation, Phasing out fossil fuels

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Criticism about paris agreement;

① least developed nations concerns are not taken into account. → 100 billion

② island nations requests and demands are not fulfilled (they are the most sufferers of climate change)

③ polluters pay principle is the negative concern approach. Leads to pollution etc.

Non binding agreement

∴ paris agreement is an milestone in addressing some of the issues of climate change and step towards renewable energy promotion.

Need to do more

Feedback (Do not write anything here)			
Structure/Flow		Content/Information	
Understanding/ Relevance	1	Total	2
	(		4

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4. Plantation agriculture is a highly specialized form of commercial agriculture limited to tropical and sub-tropical regions. Discuss (12 Marks)

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plantation agriculture is the method of agriculture in which the plantation crops like tea, coffee, rubber, etc. are grown for commercial and domestic purpose. uniculture on a large scale for commercial purpose

plantation agriculture provides more money for crops hence it also called commercial agriculture.

As these crops can be grown with suitable environmental conditions, like,

- (1) High temperature
- (2) High rainfall - moderate to high
- (3) humid conditions
- (4) soil (humic soil) humus
- (5) And good plantation agricultural practices.
- (6) labour intensive characteristics.

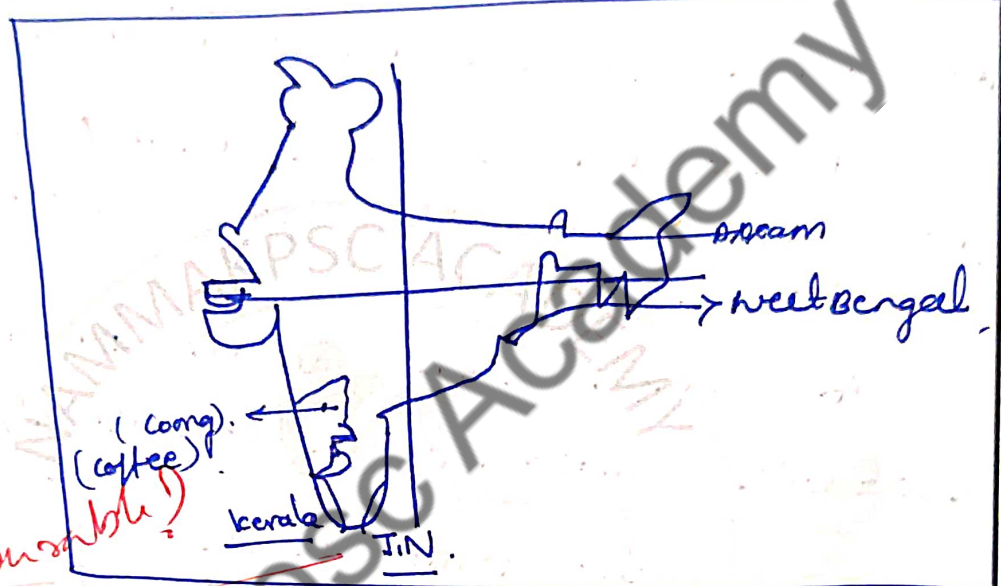
The plantation crops limited to tropical and subtropical regions due to availability of favorable climate

Why is Specialised?

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for cultivation of these crops:

In India plantation crops distributed
mainly in west bengals, Northeastern and
southern India.



how favourable?

∴ little prevalence of favorable
conditions in tropical and subtropical
regions, plantation crops concentrated
on tropical regions.

Feedback (Do not write anything here)			
Structure/Flow		Content/Information	
Understanding/ Relevance		Total	

5. Examine the various issues surrounding commercial surrogacy in India. Also, briefly discuss the proposed Assisted Reproductive Technologies Bill, 2020. (12 Marks)

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:- Surrogacy is the provision of women ovum for development of foetus (if mother has some issue in reproductive system) for monetary ~~has~~ returning from requested couple.

Not
clear
Inconclusion

Issues in Commercial Surrogacy:

↳ It is against the law of nature and with some cons and pros accepted by society, but commercial surrogacy is like trade/business.

↳ In some cases, the women after giving birth to baby, is not accepted by couples it leads to pathetic situation.

Need
to be
more
precise

↳ Some poor women, use this practice for money, it has detrimental effects on their health. (anemic, some times even death)

Not
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(*) Also, commercial surrogacy is banned in India, In India altruistic surrogacy.

Consider Mother - Surrogate Mother - child relationship angle

is allowed with some specific conditions.
what are conditions?

Assisted reproductive techniques bill 2020;

- bill-2020, provides for couples with technologies not able to bear a child can have altruistic surrogacy.
- women age should be more than 35 and less than 50
 - They can have provision of practicing their relations, Altruistic surrogacy with
 - one child only.
 - certification of eligibility should be obtained from the medicinal institute.

ART-2020 is move towards adding the issue of commercial surrogacy however commercial surrogacy was banned in India.

Surrogacy Bill different from ART Bill

Feedback (Do not write anything here)			
Structure/Flow	4/2	Content/Information	1
Understanding/ Relevance	1/2	Total	2

6. What do you understand by Non-Communicable Diseases and what is its socio-economic impact. (12 Marks)

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:- Non-communicable diseases are the disease not spread from one person to another person through (air, water, (or) any medium) but they are developed due to some problems in body (or) by genes.

Today's world increase in the number of non-communicable diseases, like heart problem (cardiovascular problems), lung diseases, and cancer (carcinogenic agents) (or) (cell defects) and mental illness are major problems of 21st century.

Diabetes - major
Reasons for Non-Communicable diseases;

- ① stressful lifestyle.
- ② No-proper dietary intake $\rightarrow$ excess (or) may limited
- ③ No-exercises.
- ④ Family history.
- ⑤ Obesity - not having minimum health awareness.
- ⑥ Intoxicational, smoking, etc.

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Socio-economic Impact;

① loss of life of person → leads to deterioration of condition for families.
Eg: Education, living conditions of children affected.

② Huge expenditure from the government side.

③ Human resource lost.

④ low HDI value of country.

*Try to add more statistics
2 lines on how to address this issue*

Govt is taking number of initiatives to address these problems, Jun 21 → International Yoga day, Swasth Bharat drive via social media, FSSAI limited intake of cholesterol and industries, limits for food processing.

Along with govt citizens should aware of stakeholder health and concentrate on their wellbeing.

Overall good answer.

Feedback (Do not write anything here)			
Structure/Flow	3	Content/Information	4
Understanding/Relevance	3	Total	10

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7. Explain the spatial distribution of pulses cultivation in India. Examine the factors that are responsible for such distribution? (12 Marks)

Candidates Must not write on this margin

!- Distribution of pulses in various places of the country known as the spatial distribution (in terms of space) pulses are the one of the most of rich source of proteins and vitamins.

Not necessary

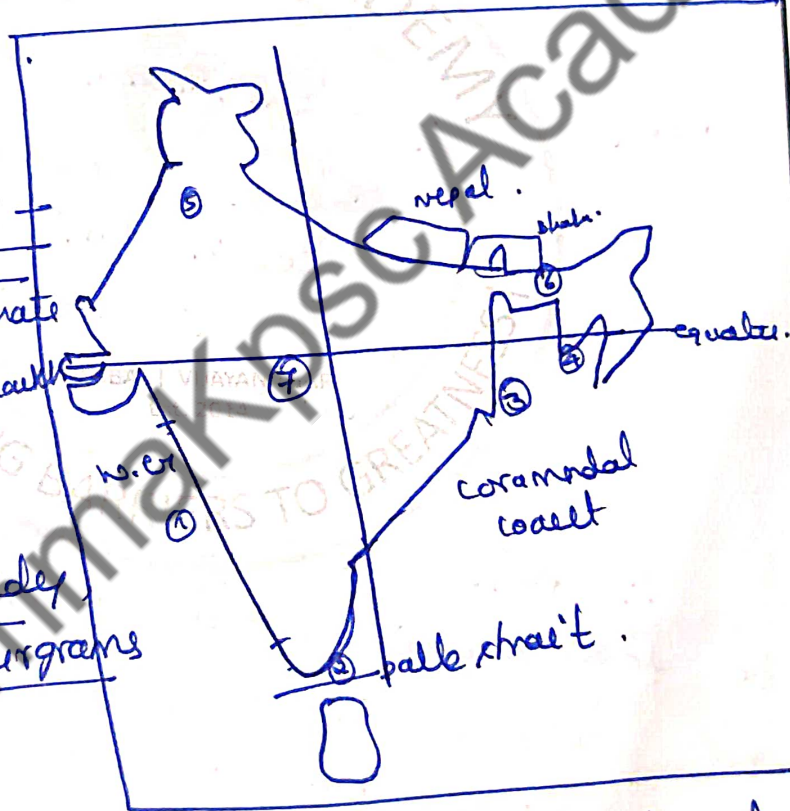
spatial distribution of pulses in India,

① Southern India -

① Southern India -

Along the west coast and southern ^{east} of country with ~~the~~ cultivate.

wide variety of pulses like paddy, ragi, grams, Turgrams, soya, etc.



g:- karnataka,

② Tamilnadu, kerala, maharashtra are the largest producers of pulses in India.

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② Northern India: - Punjab, Haryana, Uttar Pradesh
produces different varieties of wheat and
rices, along with these some soybean production
of important crops also takes place.

③ South-east India: - Andhra Pradesh, Telangana, Odisha, produces large quantities of
rice and wheat.

④ Central India: - quantity of pulses production
is less compared to other parts.

⑤ North-east India - Assam, and West Bengal
produces largest quantity of
rice in India.
→ Baminate rice in West Bengal is
famous and having GI tag.

∴ pulses in India have contributed
to food security and green revolution
have helped the increased production of
pulses, move from food deficit to
surplus..

Need to read

Feedback (Do not write anything here)			
Structure/Flow		Content/Information	
Understanding/Relevance		Total	0

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SECTION B
8. What is Space Tourism? What are the criticisms associated with it?
(12 Marks)

Candidates
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:- Space tourism is the concept involving is to practices and attempts are carried out by the countries for possible exploration and seeking the other planet which provides favorable conditions for human existence.

Criticisms associated with space tourism:-

- (1) Instead of maintaining the sustainable uses and practices of earth resources, is wastage of resources and energy.
- (2) It leads to pollution in upper atmosphere.
- (3) Countries are spending lots of rupees in space race, instead of focusing upon the Human Development and environmental conservation.
- (4) It may lead to conflict with other living creatures of space.

Very generic

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→ In increasing the scenarios of space race, almost all developing and developing countries indulging in space tourism it leads to violation of international ethics.

Need to read

Feedback (Do not write anything here)			
Structure/Flow	42	Content/Information	1
Understanding/ Relevance	42	Total	2

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9. What do you understand by bio ethics? What are ethical issues surrounding Gene Therapy? (12 Marks)

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Gene therapy is process of correcting and repairing the defective genes of organisms using some specific tools and techniques (Enzymes)

(*) Gene therapy is although good for correcting defective gene, but we don't know the consequence of detrimental effects of the process, it may lead to bio-terrorism (or) creation of some new-horrible creations.

(*) Some therapies involving like mitochondrial spindled transfer - i.e. 3-parent baby is doing without consulting unborn. it is against the privacy of people not yet born.

(*) possible mis-requests. → used for some gainful things (material, monetary) and importantly it is against the process of nature.

eg:- some experts says coronavirus is the product of bio-terrorism, its effects are experienced by the world now.

however, elaboration on the examples need to be refined.

Bio-ethics: -

Bio-ethics is the set of ~~ethical~~ ^{ethical} principles followed in biology to deal with the aspects of biological science it may be applied science (or) biotechnology.

→ without the bio-ethics it create disaster situations for living creatures on earth.

→ You may elaborate with examples

Feedback (Do not write anything here)			
Structure/Flow	2	Content/Information	2
Understanding/ Relevance	2	Total	6

10. What do you understand by Micro Irrigation? What are the different types of Micro irrigation? What are the challenges and benefits associated with it? (12 Marks)

Candidates
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:- Micro-Irrigation is the method of Irrigation in which the efficient method of using the water for crops is practiced. using some techniques and methods.

You may define Micro Irrigation

↓
Sprinkle-Irrigation

↓
Drip-Irrigation

spray, mist

→ by pumping
sprinkle irrigation! - In which water is made spread on the full circle of the land (full coverage) with less volume.

It is practiced for vegetables and green leaves cultivation.

Drip irrigation! - water is made available drop by drop near the roots of crops. to avoid wasting of water.

Benefits! - (*) Efficient utilization of water.

(*) Avoid soil-erosion.

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- increases farm income
fisheries are not wasted energy etc
- (ii) Proper distribution of water for all cropping plants, application of mulch into
 - (iii) efficient availability of water in roots.
 - promote ground water recharge.

Challenges: - (i) cost effective - initial investment

- (ii) not suitable for small holdings.
- (iii) Not having enough infrastructure, promotion.

GOI promoting micro irrigation, with co-operation of Israel, and adapting farm sustainable mechanism practices for the mutual benefits of farmers and environment.

- ⑤ PMBSY - per drop - more crop.
- ⑥ micro-irrigation development Fund (NABARD) etc.

Feedback (Do not write anything here)			
Structure/Flow	2.5	Content/Information	3
Understanding/ Relevance	2.5	Total	8

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11. Darknet has been in the news for several wrong reasons. What are some of the problems associated with Darknet? Suggest measures to tackle these problems. (12 Marks)

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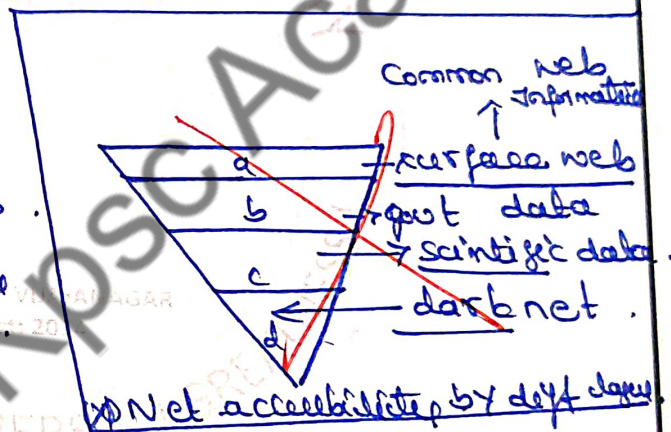
Read Definition

1- Darknet is the part of the network some data cannot be obtained as available in surface of the web.

Darknet is accessible to some persons, which involves related to cybercrime, terrorism, intolerance and web destructive processes.

Effects.

→ Dark net data does not available via simple web addresses. it have some other addresses.



→ It may detrimental to human existence.

→ promotes anti-Nationalistic and enemy feelings. Security-Issues.

→ Always associated with unethical uses.
→ violation of rights of person (or) state.

measures to tackle this:-

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bring service providers under the
ambit of law.

(2) If any one providing information, as done
net, possible checks and details need to
be done by respective agencies.

(3) Services providers need to be held
for stringent punishment and actions.

Need to read

Feedback (Do not write anything here)			
Structure/Flow		Content/Information	✓
Understanding/ Relevance		Total	✓

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12. Analyse the importance of women in STEM. What measures have been taken promote women in STEM. (12 Marks)

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!:- STEM → Science, technology, engineering and medicine, for women, STEM has wide varieties of importance.

(*) provide women practicing their careers in science, technology, and mathematical field.

(*) Improves the living condition of women → Increased the HDI of respective families → But STEM aint necessary for the

(*) promotes women-entrepreneurship and women-empowerment.

(*) women are more concerned than men in medicinal field it used for the promotion of Health care services. better treatment.

(*) about 50% of the population of the country made enforceable participation in STEM provides gender equality.

Feedback (Do not write anything here)			
Structure/Flow		Content/Information	
Understanding/ Relevance		Total	

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Measures had taken for promote women
in STEM;

① National Science Congress held in Hyderabad
2017 having motto of women in science.

② possible promotive measures via research
universities and colleges for women
participation with stifled.

③ some reservation and quotas and
free hostels and scholarship opportunities.

Write about specific schemes: CURIE
+ KIRARA

→ Through STEM we can correct
the historical injustice done for
women and moving path towards
gender inclusive society.

13. First
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1-
~~water rich~~
results

But
Inequality
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13. First green revolution was possible at places with good water supply but second green revolution will require technology and modernization. Comment (12 Marks)

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1- First green revolution has done in water rich areas, and it achieved promised results and helps in achieving food security.

But it creates regional divide and regions got inequality. i.e. resource rich regions got benefit.

So that second green revolution should concentrate on equal development of all regions with inoculation of region specific methods and technologies for surplus production of food grains.

→ In second green revolution, using data about different agronomic regions and suitable inputs and methods are applied for benefits of farmers.

↳ weather based cropping. Eg: In drier areas practicing of less water intensive crops with good input providence.

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Where is application of Tech?

- (*) Practicing of Horticulture which requires less water, using microirrigation methods we can achieve ground water recharge also.
- (*) Intercropping - eg: Int rhy leguminous plants etc.
- (*) eg:- Karnataka government providing Baithasire program, for increase in production of cereal. [Incentivizing desiccated areas for cereal production → which is protein rich and suitable to deep condition]

∴ Thereby practicing good agricultural practices from world, which are successful in region specific, and using scientific methods and precision agricultural standards we should achieve balanced and technological incentive green revolutions.

You haven't mentioned the use or advantage of Technology in 2nd Green Revolution.

Feedback (Do not write anything here)			
Structure/Flow	1	Content/Information	2
Understanding/ Relevance	1	Total	7

14. India aims to become a 100% electric vehicle nation by 2030. What are the challenges associated with this aim? What are the advantages of Electric Vehicles over internal combustion engine (ICE) vehicles? (12 Marks)

Candidates
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:- Curbing Climate change and economic development are having equal importance. Developing country like India focusing on only one, have the negative effect. So focused on both environmental conservation (i.e. limiting CO₂ emissions) and maintaining development is need of the hour. In this direction FAME is the good step to limit CO₂.

* Govt aims to become 100% electric vehicle nation by 2030, suitable arrangements and policies had taken in recent budgets and schemes.

→ Recently electronic firm TESLA started its operations in Bangalore.

Challenges;

① It is difficult to replace all vehicles with electric vehicles in such small time duration.

Keep
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(*) need to build Infrastructure Forst. i.e. production units, charging stations

(*) lack of investment for infrastructure

(*) little awareness to people about EV vehicles

(*) difficult for still developing country

like India (low-wages, poverty)

driving range, battery capacity, Non suitability for H.T.V. etc.

Advantages of electric vehicles

① Foremost advantage reduce emission of CO₂ and poisonous gases (environment friendly)

② Reduce Health impacts (respiratory illness)

③ Reduce foreign exchange - (Import bill of crude, oils)

④ Technology - friendly - huge investment in employment opportunities, etc.

low maintenance, low noise etc.

∴ FAME should be a welcome move with possible infrastructure and awareness, with capacity building of people.

FAME 2.0
road

Feedback (Do not write anything here)			
Structure/Flow	2	Content/Information	3
Understanding/ Relevance	2	Total	7

SECTION C

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15. The Bibek Debroy led beekeeping development committee under the Economic Advisory Council to the Prime Minister has made recommendations to enhance the contribution of the beekeeping sector for achieving the target of doubling of farmer incomes by 2022. In this context suggest measures to improve apiculture sector in India. (12 Marks)

!:- Apiculture is the branch of agriculture, involves practicing and rearing of honeybees for honey, which is used for both economic and Health purposes.
(*) Honey have lot of medicinal values and contain good sugar content.

Bibek Debroy Committee made recommendations to enhance bee production;
advantages;

- ① Supplement agricultural income to farmers
- ② guaranteed income.
- ③ Increased living condition
- ④ diversify the seasonal nature of agriculture → provides employment in free time
- ⑤ better income, ↑ Health, economy of household, ↑ increase in GDP.

While writing suggestions, also deal out the challenges and then address them.

measures to Improve Apiculture sector in

India; You may write about policies and

National Bee Board.

(1) Govt should create awareness, and provide credit facilities for initial arrangements

(2) Through panchayats creates training programs for youths (or) people who have interest in Agriculture.

(3) Advise state government by suitable measures and policies.

(4) create exhibition in Hobli/centres for promotion of Apiculture.

(5) Integrated Apiculture promotional measures in schemes like ARYA, and National agricultural mission etc.

→ By suitable measures we can enrich the potential of Apiculture to contribute towards Increase the farmers income by 2022.

Feedback (Do not write anything here)			
Structure/Flow	1.5	Content/Information	2
Understanding/ Relevance	1.5	Total	5

16. What do you understand by Environmental vegetarianism? How is an increasing meat based diet detrimental in our fight against Climate Change and environmental degradation? Comment on the need for a more vegetarianism. (12 Marks)

Candidates
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:- Environmental vegetarianism is a process of promoting vegetation and cultivation of vegetarian products for environmental conservation and reduction of meat based consumption practices.

How meat based diet detrimental to climate change:-

(*) Demand for meat increases it increases in the livestock promotion → it leads to grazing of lands reduces the soil holding capacity. soil degradation

(*) Loss of green plants → potential absorption of CO₂

(*) Promotes good health → Reducing Fat

(*) Conservation of wild species → good Food cycle → natural Food chain balance.

(*) Butterflies Imbalance in Food chain.

Need
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- (*) Increased man animal conflict.
(*) Reducing green cover & Forest.

* more vegetation provides good environmental condition, Increased rainfall, reduce desertification, and soil fertility management and sustainable development.

challenges:
→ Threat to nutritional security
→ reduces export
→ Lowering of HDI
→ Reduce income of farmers

→ Recently 'UK' announced 'vegan' initiatives to promote vegetarianism.

∴ conceding battle policies and of the move govt should take for step for environmental conservation without affecting nutritional security

Feedback (Do not write anything here)			
Structure/Flow	1 1/2	Content/Information	2 1/2
Understanding/ Relevance	1 1/2	Total	5

17. 'What is importance of the Market Intelligence and Early Warning System (MIEWS) Portal launched by the Union Ministry of Food processing for Monitoring prices of TOP Crops (Tomato, Onion and Potato)? Also provide for the objectives of Operation Greens. (12 Marks)

Candidates
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Market Intelligence and Early
warning system portal launched by MOFPI
for monitoring prices of TOP crops

Importance: —

- ① To keep the prices and farmers aware of avoid possible damages.
more focussed for consumer price stabilization
- ② To avoid by the threats of money lenders. (price variation) X
- ③ make full potential utilization of efforts of farmers / co-operatives by world prices.
- ④ provide guaranteed income for products. X
- ⑤ keep and maintain interest in Agriculture
- ⑥ promote good living conditions for farming category.

Candidates
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Operation Green

→ Operation Green was announced
in 2018 Budget.

→ Tomato, onion, potato are daily needed
agricultural products. for household and
to keep check the availability with
buyable prices for all income group.
Operation Green was launched.

→ Avoid storage of TOP products and
getting advantage of price affect.

→ To maintain stability of TOP products.

→ give effective price for Farmers

∴ Both TOP and MIENS are
having double edged benefit for
producers and consumers.

Feedback (Do not write anything here)			
Structure/Flow	1 1/2	Content/Information	2
Understanding/ Relevance	1 1/2	Total	5

showed
have been
intro-

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18. DNA c
constraint

1 -
map &
capacity

If h

① Hon

disease

② P

③

Bio weapon

18. DNA digital data storage may solve the data storage capacity constraints. Elaborate on the same. (10 Marks)

Candidates
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write on
this margin

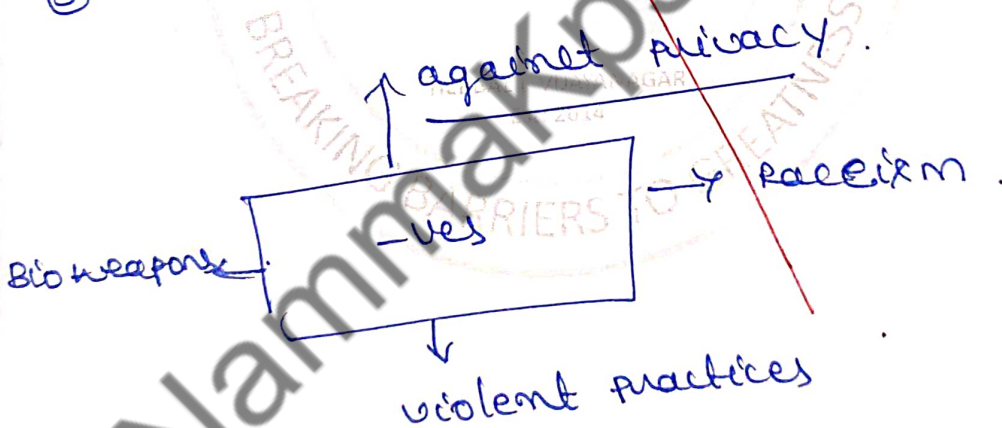
:- DNA digital data storage may solve the problem of data storage capacity constraints.

It helps in;

① Horizontal and vertical analysis of disease.

② providence of effective medicines and therapies.

③ easier for diagnosis.



19. Discuss about the importance of India's preparedness and the steps to be taken to prepare for a Space War. (10 Marks)

Candidates
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write on
this margin

1- Space war is the war of the 21st century. In which countries are competing for space race.

Motives:-
→ motive of space war may include the showing of space power capacity for other nations
→ To keep check on their security (or) power
→ Attract investments from foreign countries
→ India and space race:-

Definitely it is necessary for important for preparing space war, in this direction India had achieved some of the projects from independence to till today.

→ ~~Recent purchase of private jets from France.~~

↳ Recent mission of 'mission shakti'
↳ Sun exploration mission Aditya.

Long
Intro

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(*) ~~last~~ Year India tested Air-defense
warmed system with supersonic speed.

(*) mission chandrayan II, and gaganyan
manned mission project.

(*) India having the plan of international
building space
station in compete to us and china.

(*) NAVIC own GPS - Navigation with
Indian Constellation Consolidation.

(*) studying about saturn rings and
'Mom' mission of 2015.

∴ so it importance to India
prepare for space war with
following principles of international
ethics to compete with other
nations.

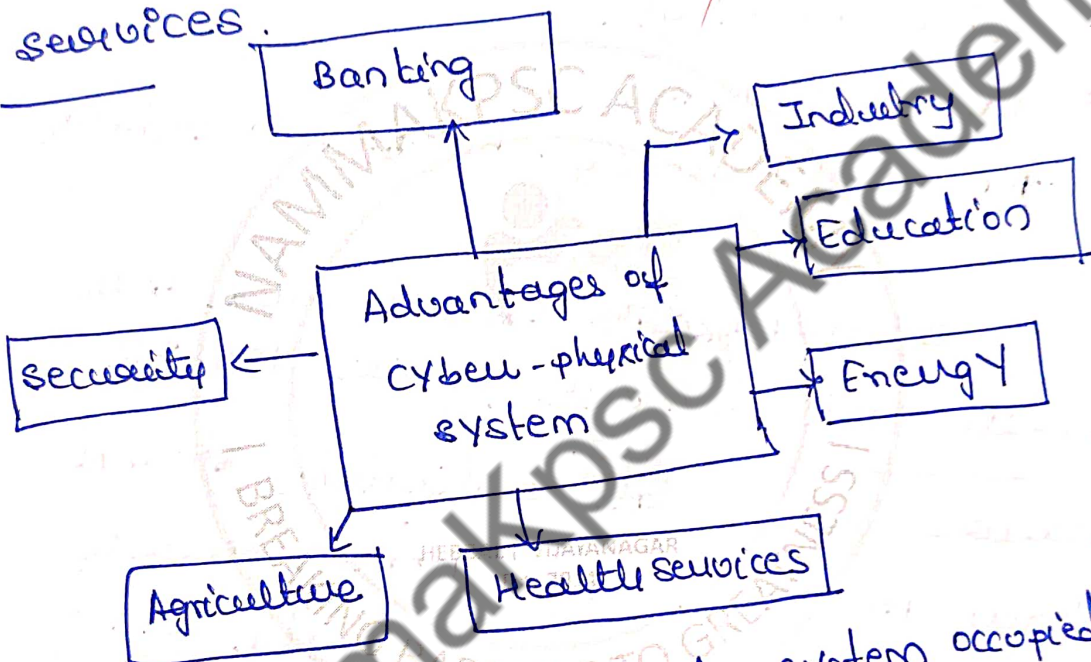
? Answer Key, Defense & Weaponised System

Feedback (Do not write anything here)			
Structure/Flow	1	Content/Information	1
Understanding/ Relevance	1	Total	3

21. Explain Cyber-Physical Systems. What are the advantages and challenges associated with exploiting Cyber-Physical Systems? (12 Marks)

Candidates
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write on
this margin

:- cyber-physical systems are the systems which uses Internet and communication technology, to provide information, communication and other services.



→ Today's cyber-physical system occupied almost all sphere of our activities.

Advantages:-

- ① Faster and speedier services.
- ② Efficient and reliable services.
- ③ Secured-manner (end to end encryption)
- ④ Accountability and transparency.

⑤ efficiency and effectiveness
challenges;

① Threat to privacy.

② National security - challenges.

③ data leakages.

④ cyber-bullyings.

⑤ cyber-crimes.

⑥ money-laundering, blocking transactions

cyber-physical systems have both
merits and demerits. with possible

measures like data-localisation, stringent
privacy policies and proper security

challenges we need to make use of
them otherwise they will be threat for
security and monetary payoffs.

(*) Cyber-security Act.

(*) NATGRID (*) cyber-policies,

SAMADAN doctrine all worked

towards cyber-security
providence in India.