ForumIAS

ESSAY

Name of Candidate	ABHIMANYU SINGH		
Roll No.	1910177340	Date:	11/06/2025

Time Allowed: Three Hours

Maximum Marks: 150

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<tr><td>Q. No.</td><td>Max. Marks</td><td>Marks Obtained</td></tr>
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INSTRUCTION

1. Do furnish the appropriate details in the answer sheet (viz. Name, Email, Roll No, Mobile).

2. The Question Paper is divided into **THREE** Sections. Write three essays in English or Hindi language, selecting one topic from each section.

3. Words limit of each essay is **700** words.

4. Each essay carries **50** marks.

5. Answers must be written in the medium authorized in the admission Certificate, which must be stated clearly on the cover of this Question-Cum-Answer (QCA) Booklet in the space provided.

6. Any page or portion of the page left blank in the Question-Cum Answer Booklet must be clearly Struck off.

Any specific messages for ForumIAS Mentors/ Evaluators with respect to your copy? Write it here.

For Student Only

Start Time		End Time	
Mode Of Examination:	Online ☐ Offline ☐

For Office Use Only

ECN CODE:	EG:	Evaluation Date:

EXAMINER'S REMARKS

CRITERIA FOR THE FEEDBACK SECTION AT THE END OF EACH QUESTION

1. **AWIS = Answered What is Asked.** This means whether you have addressed the core demand of the question or not. Addressing the core demand of the question gets you an objectively fair score. It is examiner's perception if you have understood the question and if you know the answer in the first place. Creative answer writing, sometimes missing the core demand, may fetch very high or very low scores, and exposes your answer to the subjectivity of the examiner.

2. **CD & VA = Content Density & Value Addition.** Examiner will evaluate the quality and quantity of your content in the answer. In the same word limit and space limit have you (a) written what is asked (b) gone beyond what is asked (c) enriched answers through combination of (but not all!) suggestions, ideas, quotes, flowcharts, diagrams, facts and figures, data etc. This affects objective components of assessment.

3. **S & F = Structure & Flow =** Whether you have structured your answer properly or not. Whether the answer has been broken into parts and sub-parts and each part has been addressed appropriately or not. Whether the flow of the answer is maintained. Affects both subjective and objective components of assessment.

4. **P & R =** How your answer performs on the criteria of **presentation, ease of read, clarity and apparent effort** in writing the answer. This affects the subjective components of assessment.

Section – A / खण्ड – क

1. Bridging the Gaps: Strategies for Inclusive Development Across Social Sections.
   अंतराल को पाटना: सामाजिक वर्गों में समावेशी विकास के लिए रणनीतियाँ।

2. Challenges and Opportunities in the Adoption of Renewable Energy in India.
   भारत में नवीकरणीय ऊर्जा को अपनाने में चुनौतियाँ और अवसर।

3. Environmental Sustainability and Economic Growth: Can They Coexist?
   पर्यावरणीय स्थिरता और आर्थिक विकास: क्या ये सह-अस्तित्व में रह सकते हैं?

Challenges and opportunities in adoption of Renewable Energy in India

It is often said that "Nature gives and forgives" but we have seen dreadful Natural pheno-menon in last decade where it seems Nature is seeking revenge against over-exploitation by human beings. An Earthquake kills thousands of Life, flood swaying away not only the people but properties also.

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These events, their intensity & frequency directs us to think that correction of Environmental degradation is Need of hour if we do not want to see ourselves walking with modern Robots wearing oxygen cylinder on our back & protective shield for ~~Agar~~ Acid Rain.

We will try to address four possible aspects related to Renewable Energy as a Solution for Environmental degradation. Scope and potential, Need and opportunities, challenges for adoption and possible solutions for Effectiveness.

Scope & potential of Renewable energy

There are various source of Renewable energy like Solar energy, Hydro-electricity & Nuclear energy, Biomass based energy.

Government is focusing on production of Solar energy through schemes like Surya Ghar muft bijli yojana. India is one of the pioneer country understanding the Need & potential of Solar energy, formulated International Solar Alliance. India aims to produce 500 GW energy through Solar power by 2030.

Hydro-electricity holds immense potential as a source of Renewable energy. for example

Uttar pradesh has Capacity to produce 15000 MW energy through HEP but produces only 1500 MW.

Energy based on Nuclear production offers low land fall & High calorific value of energy.

Biomass based energy production will not only boost renewable energy production but a possible solution for plight of farmers reducing post Harvest Losses & facilitating Backward-forward Integration with Supply chains.

Need & opportunity :- Efficient adoption of Renewable energy regime can potentially reduce the

environmental degradation. It will reduce emission of green house gases hence lowering the global temperature.

Reduction in Global temperature would be Impetus for sustainable growth in marine as well as Continental Ecosystems. It can potentially safeguard & preserve the Biodiversity of mother Earth.

Adoption of Renewable Energy sources can create a New Industrial landscape of manufacturing & production. Production of Electric vehicles, solar panels, Lithium batteries etc. are potential areas of development to harness the goal of $5 trillion Economy for India.

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(Don't Write anything
in this Area / इस स्थान
पर कुछ न लिखें)

It becomes Necessary for
India to adopt Renewable energy
to achieve the goals of Net-zero
& panchamrit by adhering with
Principles of paris Conference, COP-21.

Now we will delve
into the most Necessary Component
in this regard which is, what
are the [Challenges] in adopting
faster, effective & sustainable
Renewable energy. There are
three major causes behind this.

[High upfront Cost]
of Renewable energy makes it
less popular. It is major hinder-
-ence in easy & smooth adoption
of Renewable Energy.

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(Don't Write anything
in this Area / इस स्थान
पर कुछ न लिखें)

Another reason can be
Long-gestation period of these
Renewable energy projects. like
Infrastructure for Electric vehicle
is being build for last 5 years
but a not a Notable growth has
been percieved in this regard.

one of the major
problem with adoption of Renewable
energy is that lack of awareness
for Needs & potential of Renewable
energy is Rural India . people
from Rural India experience little
Need for faster adoption as low
level of environmental degradation
and digital divide are reasons
behind this mental construct.

Now what can
be solution for that ? Nature

Does not discriminate in provision of resources for All. Hence its a Shared Responsibity of Individuals & Governments.

International Collaboration is required to Solve the age old problems with Innovative ideas of New world.

If we do not want to see ourself in that situation of wearing oxygen mask we must Act faster & collectively for adoption of Renewable energy where Green branches of trees are whirling with oxygen rich air, along side the greenfield Highways facilitating the movement of electric vehicles. Now it is our choice which that In which Condition we want to see ourselves !!!

Section – B / खण्ड – ख

1. Women Are Already Strong, It's About Changing How the World Perceives That Strength.
   महिलाएँ पहले से ही मजबूत हैं, बात दुनिया के उस मजबूती को देखने के तरीके को बदलने की है ।

2. Sea Levels: A Threat to Coastal Communities and Global Stability.
   समुद्र स्तर: तटीय समुदायों और वैश्विक स्थिरता के लिए खतरा ।

3. Space Exploration and India's Ascent as a Space Power.
   अंतरिक्ष अन्वेषण और भारत का अंतरिक्ष शक्ति के रूप में उदय ।

Space Exploration and India's Ascent as a space power

The growth story of India from a technological backward country to Global leader can give goosebumps to listeners. India has come a long way from failures of flight test vehicle in 1979 under Satish dhawan to Successful landing on southpole of Moon by mission Chandrayaan-3.

This journey has been full of successful missions highlights the case of Indian Space research full of passion, dedication and Determination.

How Can we say that India is on the ladder to become space power? There have been several evidences in this regard like Historical Achievements, Recent Successful missions, India as a trusted ally for foreign countries catering the need of have-nots, upcoming Ambitious missions & Commitment for Environmental sustainability.

We will try to address each of these aspects one-by-one in next few paragraphs.

India has achieved a lot in space exploration. when ~~any~~ countries were exploring MOON, India was testing its flight test vehicle. from there, India has successfully completed Launching of Rohini & Aryabhatta set of satellites.

ISRO completed the MOM (mars orbitor mission) in 2000s. MOM successfully collected pictographical data which proved beneficial for scientists to draw conclusions regarding presence of water on Mars.

In Last decade itself, Indian space sciences achieved tremendous success. Successful Landing of Chandrayaan -3 on South pole of Moon

made India first country to do
So. Successful launch of mission
Adity L-1 for Solar exploration.
X-posAT mission & INSAT-3D
are other ambitious missions of
ISRO for Scientific Studies
are, space exploration and technological
Advancement in weather forecasting.

India is becoming
most trusted ally of Countries
which are not advanced in
space research. For example, ISRO
launched 104 Satellites of foriegn
Nations in 2024. Another reason
for this can be attributed to
Cost effectiveness of ISRO. ISRO
launched these 104 Satellites in
$15 million where gaints like

Space-x charge $60 million for Launch of single satellite.

India has achieved Self-sufficiency in terms of satellite resource pool. Launch of seven satellites for NAVIC (Indian Navigation system) will push India's Strategic Autonomy forward by reducing dependence on GPS like foreign technology.

NAVIC is opened for use by other Neighbouring countries in the region. It highlights the India's cultural policy of " vasudhaiv Kutumbkam".

The story does not end with achievements but it is a start for bright future full of colours of success.

India aims for ambitious missions in future like Gaganyaan, Bhartiya Antrix Station (BAS) and Venous orbitor mission (VOM).

ISRO successfully conducted test flight DV1 for Gaganyaan mission which aims to explore the capability of ISRO to send Astronautes into space & successfully bring them back. India has achieved the milestone of space-docking (spadex) as a Sub-component of Gaganyaan mission.

India Aims to build its own space station (BAS) for a permanent & Independent presence in space. It is a allied goal of AtmaNirbhar

Bharat Initiative.

ISRO increases its strength and Resilience by incorporating the best practices across the world. for that it facilitates international collaboration like collaboration for Launch of venus orbiter mission in 2028 with NASA.

ISRO Not only focuses on success but on a sustainable Development. ISRO performed controlled Re-entry of Megha-tropique-I, a de-commissioned satellite in lower Earth orbit. It shows India's uncomprising adherence with Net zero goals & Sustainable Development.

India has become the 6th largest Economy in Space Sector. @ The time is not far away when india will be leading the world for <u>sustainable</u> <u>Space</u> <u>Science</u>. ISRO will play key role in this regard.

It can be said for <u>grit</u> & <u>determination</u> of <u>Indian</u> <u>Space</u> <u>Scientists</u> that

" who said Sky is impenetrable try & throw a stone with all your might once".

Section – C / खण्ड – ग

1. Challenges in the Education System and Ways to Improve It.
   शिक्षा प्रणाली में चुनौतियाँ और इसे सुधारने के उपाय।

2. Technology as the Silent Feature in International Relations.
   अंतरराष्ट्रीय संबंधों में प्रौद्योगिकी एक मूक विशेषता के रूप में।

3. Water Management: Addressing the Growing Crisis.
   जल प्रबंधन: बढ़ती संकट का समाधान।

Technology as the Silent Feature in International Relations

Bhutan has been a trusted partner of India for a very long time. But, china is increasing its footprints in Bhutan now, leveraging the technology transfer and enhanced connectivity through trans himalyen multi-lateral highway. India Earnestly appeal to maintain Good relations leveraging its

Technology transfer for Hydro-electricity generation through projects like punasangtu-I & II. Here botha the countries are leveraging technology to establish foreign relations.

In this Eassy we will try to understand how technology is working as a underneath agent for foreign relations and why this is so?

India has garnered its relations with ASEAN Countries in a more fruitful condition after it has launched 104 satellites of ASEAN countries (ISRO-2024) This space tech transfer builds Need based Good foreign relations.

The politics of foreign relations In 1960s & 1970s roamed around the treaty of Nuclear supplier group which was nothing but a potential effort of preventing the countries of third world for using Nuclear technology.

Enemy countries pose cyber threat for each other which is a example of use of technology in foreign relations wheather they are cordial or ungracious.

African Nations Lagged behind in development. Inadequate Development of technology in African Continent decided

it's fate in International forums.
Israel and many African Nations
Started their journey as a
Nation state at the same time
more or less. but we can see
the difference between their
international engagements. This
Can also be attributed to Techno-
-logy 4 scientific advancements

India started to
build good relations with
african countries by Sharing
technology like Opening of
IIT campus in Zanzibar and
Sharing of manufacturing technologies.

Vaccine Maitri
Component of Indian foreign

policy paradigm is also the prime example which shows that technology is <u>key</u> <u>facilita</u>-tor of <u>foreign</u> policies.

Russia has been a fair weather friend of India. Russia has always supplied the cutting edge defence technology to India. It forms positive attitude of India <s>towards</s> russian hence making cordial relations, highlighting the " <u>Need function</u> of <u>Attitude</u>" principle by <u>Daniel Katz</u>.

<u>WTO mandates</u> to conduct <u>free</u> & fair <s>trat</s> trade among countries. It

emphasizes on the need of complete integration of Economies for free & fair trade regimes under GATT Agreement. It clearly highlights the Need of Technology transfer for better trade foreign relations.

Yet, there are Several other factors which contribute for maintaining specific foreign relations. like [historical factors] are more contributing for India - pakistan relations rather than technology.

Market Economy oriented outlook is another major factor which determines

the nature and intensity of relations among countries! Almost every developed country is now interested in maintaing good relations with china & USA because of their enormous market Economies.

Availability of Natural resources in Africa makes it indispensable for Growth and development of Global fraternity. presence of Rare Earth minerals in African Nations makes it important player of Global supply chain , Hence Inclusion in G-20.

Coming back to technology, every technology is

so much desired in foreign relations. It facilitates capacity development of country as suggested by amartya sen which can be utilised for Achievement of Self-reliance curbing the threat of deterrance by denial.

Globalization made the ~~madworld~~ world a global village where action of one affects all. Same goes with the technology. This is the reason that placed Technology as silent agent for foreign relations. It is not a present phenomena but found in mythological stories also where people feared from states Warriors who has technological sound weapons like Gandeev of Arjuna.

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