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RECEIVED

SUBJECT:	ESSAY.	Test Code:	1	0	7	6
Name of Candidate	HIMADREE KAUSHIK.					
Medium Hindi/Eng.	ENGLISH.	Registration Number	1	0	6	0
Center	ORN	Date	2	7/	0	8/1

[illegible]

Total Marks Obtained:

INSTRUCTIONS

1. Do furnish the appropriate details in the answer sheet (viz. Name, Registration Number and Test Code).
उत्तर पुस्तिका में सूचनाएं भरना आवश्यक है (नाम, प्रश्न-पत्र कोड, विद्यार्थी क्रमांक आदि)।
2. All questions are compulsory.
सभी प्रश्न अनिवार्य हैं।
3. The number of marks carried by a question/part is indicated against it.
प्रत्येक प्रश्न/भाग के अंक उसके सामने दिए गए हैं।
4. 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. No marks will be given for answers written in medium other than the authorized one.
प्रश्नों के उत्तर उसी माध्यम में लिखे जाने चाहिए जिसका उल्लेख आपके प्रवेश पत्र में किया गया है और उस माध्यम का स्पष्ट उल्लेख प्रश्न-सह-उत्तर (क्यूसीए) पुस्तिका के मुख्य पृष्ठ पर अंकित निर्दिष्ट स्थान पर किया जाना चाहिए। उल्लिखित माध्यम के अतिरिक्त अन्य किसी माध्यम में लिए गए उत्तर पर कोई अंक नहीं मिलेंगे।
5. Word limit in questions, if specified, should be adhered to.
प्रश्नों में शब्द सीमा, जहाँ विनिर्दिष्ट है, का अनुसरण किया जाना चाहिए।
6. Any page or portion of the page left blank in the Question-Cum-Answer Booklet must be clearly struck off.
उत्तर पुस्तिका में खाली छोड़ा हुआ पृष्ठ या उसके अंश को स्पष्ट रूप से काटा जाना चाहिए।

EVALUATION INDICATORS

1. Alignment Competence
2. Context Competence
3. Content Competence
4. Language Competence
5. Introduction Competence
6. Structure - Presentation Competence
7. Conclusion Competence

Overall Macro Comments / feedback / suggestions on Answer Booklet:

1.

2.

3.

4.

5.

6.

All the Best

SECTION A.

WASTE MANAGEMENT IN INDIA : CHALLENGES AND OPPORTUNITIES

The significance of effective waste management practices was recognized first by people of Indus Valley Civilization as long as four thousand years ago. A distinct feature of cities of Mohenjodaro and Harappa is the drainage connecting each household. There were even 'manholes' at intervals for cleaning purposes.

In modern times the challenge of waste management has arisen alongside economic growth and the population pressure. In nineteenth

century England at peak of industrial revolution London was witness to 'the great stink' resulting from waste piling up due to haphazard urbanization.

Waste management has emerged as a key challenge in Indian context in recent years. The rapid urbanization in cities and changing lifestyles in villages make it a universal problem. It is important to use this as an opportunity to prevent degradation of our rivers, land, groundwater as well as air quality. Effective waste management is key to reducing the need for treatment of polluted water as well.

CHALLENGES TO WASTE MANAGENT

India's population stands at 2.1 billion according to 2011 census and India is projected to be the most populous country by 2030. At the same time we are the fastest growing large economy. These two factors together imply large scale production as well as consumption both of which are waste generating activities. The sheer volume of waste to be handled presents a problem in itself.

The distribution of this population is 32% in cities but this share is set to grow rapidly.

Solid Waste Management presents a major issue for Indian cities. This includes household waste, municipal solid waste, construction waste as well as commercial waste.

The scale of the problem is evident from the sight of huge heaps of waste in landfills. These have long surpassed their capacity and pose a threat to public safety. Methane released in landfills makes them prone to fire hazard. At the same time they can contaminate the groundwater making it unfit for consumption. This problem is multiplied manifold for 'mega cities' like Delhi and Bengaluru.

The issue of solid waste also presents itself in rural areas. Here the problem of open defecation presents a challenge to public health and sanitation. This not only leads to spread of diseases but can also contaminate water bodies like river or lakes near the village.

An emerging aspect of rural solid waste is agricultural waste. Use of modern threshers leads to waste generation. Burning of this agricultural waste at the end of year, specially in Punjab, Haryana and West U.P. has lead to rising air pollution and smog in the region, specially in Delhi.

Another aspect of solid waste that has become a key concern globally is plastic waste. The non biodegradable nature of plastic leads to its accumulation. The Great Pacific Garbage Patch is due to plastic waste. This waste adversely affects biodiversity and burning of plastics generates toxic fumes. Recently discovered troubling effects of microplastics are an emerging challenge. These are present in almost all cosmetics and pose health and environmental risks.

While Solid Waste Management is one of the key challenges another aspect of waste generation exists that

has been more persistent. Industrial waste is usually in the form of slurry or liquid discharge. Often this is discharged directly into waterbodies untreated.

The decline in flow and water quality of Yamuna is largely due to industrial waste. Similarly many industries are located along Ganga that discharge effluents into the river contributing to pollution.

The nature of this challenge becomes complicated because many of these industries create large scale employment. For instance leather industry generates large amount of toxic waste but is

also labour-intensive.

A number of issues have emerged in the 21st century that will be key to waste management in future. Electronic waste is presenting an emerging challenge as consumption of gadgets is growing at an unprecedented rate. At the same time life of these gadgets is reducing causing massive waste generation. Electronic waste contains metals like cadmium and mercury. These can contaminate groundwater and cause life threatening diseases.

Similarly radioactive waste is extremely hazardous and can have far-reaching consequences

unless disposed carefully. Hospitals are emerging as a source of this form of waste along with other niche industries like nuclear power.

OPPORTUNITIES IN WASTE MANAGEMENT.

While there are multiple challenges which need to delicately balance economic needs of people with sustainability there have also emerged key opportunities.

3Rs : REDUCE, REUSE AND RECYCLE.

The ideal solution to minimizing the problem is by minimizing waste generation to begin with. By 'reducing' we can achieve efficiency as well as sustainability. For instance

stress should be on minimal packaging. We witness layers of unnecessary plastic, thermocol and paper in everything we buy. Producers should shift to minimizing and reducing.

Similarly 'reuse' should entail buying reusable material. For instance a cloth bag instead of plastic bags can be reused. Lastly recycling ensures reduction in use of resources while producing. The plastic bottles for beverages like coke should be replaced by recyclable glass bottles.

WASTE SEGREGATION AT SOURCE

The solution to solid waste management lies in segregation

of waste into recyclable and non-recyclable. This will enable better disposal. By segregating food waste from plastics and paper at household level, waste disposal can become much easier.

This is also an effective solution to manual scavenging where separation is done by people by hand after collection of waste. Thus a simple segregation of waste can minimize adverse effect of this inhuman practice.

USE OF TECHNOLOGY.

There are emerging technologies to mitigate adverse impact of waste. For instance recently plastic waste

has been effectively used in the construction of roads.

Similarly bio-digesters use micro-organisms for waste treatment. This can be a cost effective and 'green' way to dispose waste. Technology can also be used to minimize wastage and material used at production stage itself.

SWACCH BHARAT ABHIYAN AND BEHAVIOURAL CHANGE

The SBA has taken the form of people's movement. It is focusing on changing attitudes towards practices like open defecation and littering in public.

This is a key opportunity to change people's attitude and behaviour towards waste disposal. It can be a way to mobilize people to put pressure on waste generators like industries as well.

KEY INITIATIVES

There have been various guidelines issued to handle different kinds of wastes: e-waste, plastic waste, solid waste and hazardous waste. The government has taken novel approaches to handling these issues.

The E-waste guidelines introduce idea of Extended Producer Responsibility where producer is responsible for

disposal. For instance the manufacture of a mobile handset is responsible to dispose it after use by consumer.

Similarly plastic waste guidelines, 2016 increased minimum thickness of plastics from 20 to 50 microns. At the same time it extended its provisions to rural areas which are also emerging as a source of plastic waste.

In order to address Industrial Waste, provision of common effluent treatment plant along Ganga for industries like leather and textiles has been started. Similarly there is limitation on locating polluting industries along coasts.

The challenge of agricultural waste is set to be converted into an opportunity by using it to generate bio-fuel. This can help in reducing pollution and generating fuel at the same time.

The importance of waste management is key for India's future. Smart cities cannot be built on the back of unclean cities. Similarly effective waste management in rural India can prevent the challenge from becoming a problem. This is imperative for our future generations as it is said that we do not inherit the Earth from our parents, we borrow it from our children.

SECTION B.

WOMEN HEALTH AND SANITATION IN RURAL INDIA: ISSUES, CHALLENGES AND OPPORTUNITIES

One of the key issues in addressing issues related to women is that they form a diverse group within themselves. When it comes to women health and sanitation rural India presents specific and distinct challenges due to remoteness, financial limitations as well as social attitudes. This makes it important to analyze health and sanitation issues faced by women in rural India specifically.

The state of women health has improved manifold with maternal mortality rate (MMR) improving from 167 in 2011-12 to 130 in 2015-16

Similarly the percentage of institutional deliveries has increased from nearly 50% to over 75% in the same time period. However India still has a long way to go on certain other parameters like every one in three females is still anaemic. In order to analyze the issue of women health in rural India we need to look at the challenges and opportunities of the same.

The first challenge to health is accessibility. This is a distinct problem for rural India where

firstly there is limited availability of Primary Health Centres and Community Health Centres. Secondly there is the challenge of availability of doctors in cases where centres are present.

The accessibility problem is evident from the fact that not even 50% of the doctors practicing in rural areas are qualified to do so. This leads to incidents like transmission of diseases due to use of infected needle by the famous 'One-syringe' doctor in a village.

While physical access is a challenge, financial accessibility presents another challenge. Even though almost 78% of Indian

agricultural labour force is women (feminization of agriculture), they have limited financial autonomy. This limits their access to finances for medical purposes.

Linked to this is the problem of agency for women i.e. autonomy in decision making. This severely limits their decision in terms of questions of contraceptive use, family planning or even building a toilet for the house. The challenges of autonomy, agency and outcomes can be analyzed with respect to key issues:

REPRODUCTIVE HEALTH.

Access to health centres limits the pre-childbirth care of women. It further presents a challenge to

institutional deliveries and neo-natal childcare.

The problem of attitude presents itself in various forms: for instance surveys find Indian women do not gain adequate weight during pregnancy. This is due to inadequate consumption of food and also lack of awareness.

Similarly agency problem reflects in use of female family planning measures like hysterectomy in over 95% cases. The inability to decide when to have children is another manifestation of the agency problem.

Nobel Laureate Heckman points out the need to focus on

reproductive health as it affects the development of a child throughout his/her lifetime.

ADOLESCENT HEALTH.

Malnutrition is one of the key challenges for health of adolescent girls. This can be traced to lack of awareness as well as adverse social attitudes. For instance it is often seen to be a practice that girls eat after the rest of the family along with their mothers.

Marriage at an early age presents another health concern. This not only adversely affects girls' education but also leads to early pregnancy, adversely affecting female health.

MENSTRUAL HYGIENE.

An important aspect of female sanitation is menstrual hygiene. While this has remained a taboo for the longest time, it has lead to minimal conversation and hence limited awareness.

Simultaneously limited finances and autonomy has restricted access of rural women to sanitary pads.

OPEN DEFECATION

It is an ill of rural India that has far reaching consequences on female health and sanitation.

It is simultaneously a safety issue for women who have to

Travel at odd hours due to lack of toilet facilities at home.

OLD-AGE CARE

The need for special focus on women health in old age arises from the fact that firstly women tend to outlive men naturally. Secondly in old age, women become entirely dependent thereby increasing their vulnerability.

Therefore we observe the key issues of women health and sanitation which are magnified by challenges of social attitudes, lack of decisional autonomy and access to finances. However there

are numerous opportunities and initiatives that pave the way forward.

ASHA AND ANM

Accredited Social Health Assistant (ASHA) Workers and Auxiliary Nurses and Midwives (ANMs) have emerged as keystones to rural healthcare, specially maternal health.

They aid in institutional deliveries, spread awareness regarding correct dietary habits, sanitary practices and family planning measures. They also ensure vaccination for expecting mothers and newborns by spreading awareness regarding the same.

With the aid of ASHA workers and ANMs Anganwadi centres can truly be transformed into chief point focusing on women health in rural areas.

SWACHH BHARAT ABHIYAN (SBA)

The mission aims at making India open-defecation free by 2020. This will serve as a key towards sanitation needs of women. It will ensure their safety and also aid in saving time.

MISSION PARIVAR VIKAS

It seeks to address family planning in 7 key states in order to reduce Total Fertility Rate to 2.1.

The key approach is to focus on male family planning measures which are medically safer than female measures.

MENSTRUAL HYGIENE: STREE SWABHIMAN

The initiative by Ministry of Electronics and Information Technology seeks to provide kiosks in rural areas where women can access free sanitary napkins.

Similarly such awareness generation measures need to be taken to inform women regarding need and benefits of menstrual hygiene. At the same time informing them of effective disposal ways to ensure sanitation and cleanliness.

Women Health is one of the key pillars of Sustainable Development Goal aiming at Universal Healthcare. While women health and sanitation are worthy goals in themselves they also serve as a key to other objectives. It is linked to child health, family health as well as greater social awareness.

Addressing women health and sanitation in rural areas can help in achieving better healthcare at large.

India's NPA problem: an outcome
of pol. profligacy or managerial incapacity

— ~~Defined~~ How much 11.37. PSB-437.

— Definition.

Women Health & Sanitation: issues
challenges & opportunities.

① Rural India — why significantly?

② Social Determinants

① Access ② Economic Structure
③ Attitudes.

ISSUES & CHALLENGES

Maternal Health.

Open Defecation

Attitudes

Adolescent Health.

Menstrual Hygiene

OPPORTUNITIES

ASHA ANM

Stru Swasthiman

JSSK

SBM

~~Active~~ Women Health Key To

- Child Health
- Family Health
- Awareness.

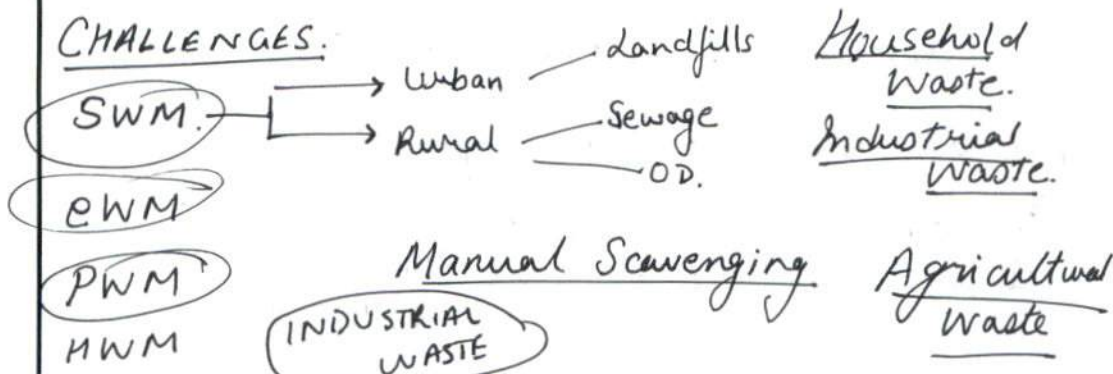
Waste mgmt in India: challenges & opportunities

IVC → drainage system imp.
→ 'curb stink'

IR, British solvent, emergence of cities.

Today: urbanisation

CHALLENGES:



OPPORTUNITIES

- ① SBA — Health, Nutrition.
- ② Recycling — Reuse - Reduce.
- ③ Technology.
- ④ Behaviour Change.

Guidelines — e-waste, plastic waste, hazardous waste.

Sw Namami Gange

Common Effluent Treatment Plants

CONCLUSION:

Development cannot be separated from sustainability.

Sri: We do not ^{inherit} get the environment from our parents we borrow it from our children.