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# EPIC AND MYTHOLOGY

*Edited by*

**Anita Goswami**

  
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Epic and  
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Mahabhar  
Puran and  
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### Influence of Mythology on Literature and Society

*Dr. Monika Chaudhary\**

#### ABSTRACT

This paper deals with the influence of mythology on literature and society. Myth is a mythical or conventional tale that is typically about an incident or a character, story, themes and pictures. Myths and literature both are very important for human development and plays an important role in this intellectual world. Literature will always include few aspect of narrative that will keep influencing our modern world as it did in the past.

#### Introduction:

The definition of mythology is derived from the word 'myth'. The word itself comes from the Greek word 'mythos,' which means fables, legend or sages. Literature

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is a body of written works of language, period and culture. Mythology refers to the collection of tales concerning their pantheon of gods as well as heroes, which outline their own cultic and ritual practices and view of the world. This corpus of material includes a large collection of narratives, some of which explain the origins of the world, and others that detail the lives and adventures of a wide variety of gods, goddesses, heroes, heroines, and other mythological creatures. These accounts were initially fashioned and disseminated in an oral-poetic tradition, though they are known today primarily through written Greek literature. Mythology is meant to show us how people felt about the human race and about where they came from many years ago. The stories in Mythology and the characters are describe in such great detail that even though you cannot see them, that maybe just maybe they are real and believable. Mythology is the way the Greeks and Roman saw and understood the world. The connection between literature and myth is one of mutual dependence. Not only does it offer a repository of multifaceted stories for the fictional world-making of literature, which expands, modifies, or rewrites mythological elements in the process of creative reception. It also provides the narrative strategies which literature evolves from as it is indicated in Aristotle's Poetics, where mythos refers to plot, to a unified construct of required and probable actions.[1]

Furthermore, as suggested by the etymology of mythos ("word"), myth epitomizes the very origin of literature, which is rooted in oral tradition and the performance of literary texts. Rather than referring to mythos in the Aristotelian sense of the term, which has been treated by Northrop Frye, for instance, who conceives myth as "a structural organizing principle of literary form", myth, in this paper, will be used to denote an invented, traditional



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## Relevance of Bhagavad Gita in the Present Time

*Dr. Satyapal Singh Rana\**

"Yadaa Yadaahi Dharmasya Glaanirbhavati Bhaarata  
Abhyutthaanam Adharmasya Tadaatmanam Srujaamy Aham  
Paritraanaaya Saadhunaam Vinaashaaya Cha Dushkrutaam  
Dharma Samsthaapanaarthaaya Sambhaavaamy Yugey Yugey"

I am writing this article to highlight how learning Gita is necessary for us to live our life more effectively. In order to highlight its importance, I first examine some commonly held misconceptions which lead people to think that the Gita is not meant for young students and professionals but more for people who are in the advanced stage of their life. After having negated these misconceptions, I have attempted to give the right perspective on the teachings of the Gita hoping that more and more people take advantage

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# The Role of Media in Transforming India

The Journey so far



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## Role of Media in Promoting Environmental Awareness

*Satyapal Singh Rana\**

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Environment is a basic need for all living beings because every necessity for them depends on it. Unless the environment is protected, the existence of life on the planet Earth would be impossible. That is why environmental issues have become globally important. All people must give their contribution for the betterment of environment. Now a day's world is facing global environment problems like Global warming, Ozone depletion, and Climate change. How do people from different cultures perceive these problems? How do they react to them? The aim of this study is to figure out what factors are most important in explaining different levels of awareness concerning environmental problems and to compare the level of awareness as well as the actual behavior of people living in developing and developed countries towards environment and media has played an important role in setting perceptions and creating awareness on environmental issues.

The role of media is very important in shaping public awareness about global climate change and environmental protection. Traditionally, radio, television and newspapers have been playing an important role for spreading awareness among the people for climate change and environment protection at the faster rate than the personal contacts. Further they have been enriched by the production and distribution of printed materials such as books, magazines and brochure which has helped in transfer of new and current awareness whereas radio and television are important tool for quick information.

The different types of media can be categorized as:

- Print Media which includes newspaper, Magazines and advertisement.

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# Gender Discrimination at Work Place in India

*Dr. Ravinder Kumar*  
*Prof. (Dr) Anju Singh*



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# CHAPTER 16

## Gender Equality and Women Empowerment

**Dr. Satyapal Singh Rana**

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### Introduction

Gender equity is the process of being fair to women and men. To ensure fairness, strategies and measures must often be available to compensate for women's historical and social disadvantages that prevent women and men from otherwise operating on a level playing field. Equity leads to equality. Gender equality requires equal enjoyment by women and men of socially-valued goods, opportunities, resources, and rewards. Where gender inequality exists, generally women are excluded or disadvantaged in decision-making and access to economic and social resources. Therefore, a critical aspect of promoting gender equality is the empowerment of women, with a focus on identifying and redressing power imbalances and giving women more autonomy to manage their own lives. Gender equality does not mean that men and women become the same; only that access to opportunities and life changes is neither dependent on, nor constrained by, their sex. Achieving gender equality requires women's empowerment to ensure that decision-making at private and public levels and access to resources are no longer weighted in men's favour so that both women and men can fully participate as equal partners in productive and reproductive life.

An analysis of gender equality is very essential to understanding the level of women's empowerment in Indian society. According to

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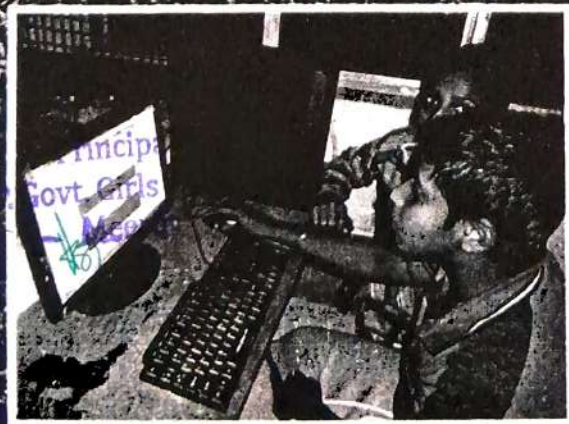
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# इक्कीसवीं सदी में ग्राम्य जीवन



संपादक : डॉ. मोनिका देवी | डॉ. राजपाल  
सह संपादक : डॉ. श्रीकांत, बि. संगम



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डॉ. स्वर्णलता कदम, एसो. प्रोफेसर

### शोध सारांश

श्री विधि चंद पटवारी का जन्म 1924 ई. में मेरठ जनपद के ग्राम रिठानी में एक प्रतिष्ठित किसान परिवार में हुआ। कवि की अनेक कृतियां जैसे तुलसी का बिरवा सिद्धार्थ (खंडकाव्य) नीम की छांव में, माटी की सुगंध, हरि सिंह नल्ला (खंडकाव्य) आदि प्रकाशित हो चुके हैं। कवि की तुलसी का बिरवा एवं नीम की छांव में कृतियां पढ़ने के बाद कभी को कुछ अधिक गहराई के साथ जानने की इच्छा ने शोध पत्र को जन्म दिया। कवि की कविताओं में गांव की मिट्टी की सोंधी गंध विद्यमान है, इनकी तो रग-रग में गांव बसा है। वह गांव जिसमें हमारे देश की आत्मा बसती है। वह गांव जिसमें देश की संस्कृति जन्मी, पली और विकसित हुई है। वह गांव जिसमें अशिक्षा के अंधकार में भी मानव संबंधी अपनी उज्ज्वल दीप्ति बनाए रख सके। वह गांव जो आज महानगरों की कुलणीत छाया से ग्रस्त होकर जाती पाति बेरोजगारी, पारस्परिक ईश्वर- द्वेष और कलट के कारण दिन प्रतिदिन अपने सहज रूप से दूर होता जा रहा है, मेरे शोध पत्र का उद्देश्य ग्रामीण भाव बोध के ऐसे कवि को ग्रामीण संस्कृति से लगाव रखने वाले लोगों के सामने कवि को उनकी कृतियों के अंशों के माध्यम से उनकी विचारधारा को उजागर करना है।

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## महाभारत कालीन राजनीतिक चिंतन : एक विश्लेषण

डॉ. रामचन्द्र सिंह

### प्रस्तावना

भारतीय राजनीतिक व्यवस्था को यदि समीप से जानना है तो हमें उसकी ऐतिहासिक पृष्ठभूमि को जानना आवश्यक है। ऐतिहासिक पृष्ठभूमि के अन्तर्गत क्योंकि हमें महाभारत कालीन राजनीतिक चिंतन राजनीतिक व्यवस्था पर केन्द्रित करना है तो इसके लिए महाभारत से बेहतर व विश्वासनीय स्रोत और कोई हो ही नहीं सकता। महाभारत के शान्तिपर्व में तत्कालीन राजव्यवस्था यथा दण्डनीति (राजशास्त्र), राजधर्म (राजाओं के कर्तव्य), शासन पद्धति, मन्त्री परिषद व कर व्यवस्था के बारे में अनेक महत्वपूर्ण विचार मिलते हैं। जिस तरह किसी भी समय की राजव्यवस्था तत्कालीन राजनीतिक चिंतन पर आधारित होती है उसी तरह महाभारत कालीन राजव्यवस्था पर भी

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\* सहआचार्य, राजनीति विज्ञान विभाग, शहीद मंगल पाण्डे राजकीय महिला स्नातकोत्तर महाविद्यालय, मेरठ (उ०प्र०)

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**Quality Enhancement in  
Higher Education  
Institutions as per new  
NAAC Guidelines**

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## ACHIEVING EXCELLENCE THROUGH IQAC AT HEIs

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### ABSTRACT

Polishing (IQAC) Internal Quality Assurance Cell by NAAC accredited institutions after the first cycle is a major step towards maintaining and raising quality standards at a higher education institute. IQAC remains to be a significant administrative body for all the quality work that institution does and performs. It is the prime responsibility of IQAC to initiate, plan and supervise various activities that are necessary to increase the quality of the education imparted in an institution. Role of IQAC in maintaining quality standards is crucial. In this paper we will go through the role of IQAC, especially the aims and then we would try to evaluate in the best possible way it helps in achieving the goal of any higher education institute and how it can aid in the teaching, learning and evaluation process.

**KEY WORDS:** IQAC, NAAC, Quality assurance Teaching learning evaluation.

### INTRODUCTION

Higher education calls for excellence and research oriented approach in imparting knowledge, motivation and ideas to our students, though the challenges and issues which HEIs face today are crucial, complex, diverse and multifaceted in nature. Maintaining quality and continual updation of teaching – learning and evaluation mechanism has always been the major thrust area of higher education. HEIs should be able to train our students in such a manner that they would be able to contribute to the society in the most effective sustainable way, for this, strong and effective working of internal quality assurance is a must in every institution of higher education. IQAC plays key role in achieving goal of NAAC i.e. to develop a system for conscious, consistent and catalytic action to improve the academic and administrative performance of the institutions. Indian higher education system is one of the third largest higher education system in the world. There are around 795 universities, 671 affiliated colleges listed on AISHE Web portal, College density, i.e. number of colleges per lakh eligible population (age group 18-23 years)



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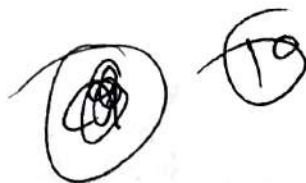
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# ENVIRONMENTAL CHEMISTRY AND ITS APPLICATIONS FOR THE POLLUTION ABATEMENT

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# Depletion of Ozone Layer by Iodine Oxides

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**Abstract-** Iodine plays a very important role in nature. It is an essential dietary element for mammals. It may affect the environment in many ways. It may enhance the depletion of ozone layer. It has the capacity to oxidize atmosphere and may remove various organic and inorganic species which emitted to atmosphere both from natural and anthropogenic sources. It may also enhance the depletion of mercury ( $\text{Hg}^0$ ) to reactive mercuric ( $\text{Hg}^{II}$ ) compounds by oxidation into polar atmosphere. Oxidized mercury then deposited in snow pack, part of it may reduce and released back to atmosphere, but remaining part of it runs off in melt water and may enter to the food chain. Iodine and its compounds combine with ozone to form iodine oxides in the atmosphere, where they may form ultra fine aerosol particles having a diameter of 3-10 nm. These iodine oxide particles (IO and IO radicals) may combine to form higher oxides which then spontaneously condense to form particles.

Bursts of iodine oxide particles also have been observed in certain marine environment. These particles may acts as condensation nuclei for other condensable vapours and acts as cloud condensation nuclei (CCN) which would impact on the radiative balance of the atmosphere and hence on climate. It is also a mystery that what would happen when iodine oxide particles such as  $\text{I}_2\text{O}_3$ ,  $\text{I}_2\text{O}_4$ ,  $\text{I}_2\text{O}_5$  and  $\text{I}_4\text{O}_9$  may also combine with acids such as HCl,  $\text{H}_2\text{SO}_4$ ,  $\text{HNO}_3$ , Oxalic acid etc. The uptake of inorganic iodine compounds, such as HOI and  $\text{INO}_3$ , on sea salt aerosols liberates chlorine and bromine into the gas phase, these halogens are also ozone depleting and their atoms and oxides are highly reactive towards certain organic compounds. As such our aim through our research work is to shed some light on the possible iodine species form in the atmosphere aerosol and their ice nucleation properties.

**Keyword:** Iodine, ozone, aerosol, CCN, Mercury

**Introduction-** Iodine is an essential dietary element for mammals. It occurs in many oxidation states, including iodine ( $\text{I}^-$ ), Iodate ( $\text{IO}_3^-$ ) and various per iodate anions. Iodine produced in atmosphere in many ways. Anthropogenic releases of atmospheric iodine (such as fossil fuel combustion) are believed to be negligible on a global scale compared to natural sources. The natural and main source of iodine is ocean. Iodine in ocean water exists predominantly as iodate ( $\text{IO}_3^-$ ), iodide ( $\text{I}^-$ ) and non-volatile dissolved organic iodine, with a total concentration of around  $0.45 \mu\text{m}^1$ . Production of molecular iodine in the surface ocean from the reaction of atmospheric ozone with iodide has also been suggested<sup>2,3</sup>. Iodine chemistry could make a significant contribution to past and future changes in the Earth's ozone layer. Reactive free radicals (Cl, ClO, Br, BrO, I, IO) are effective ozone depleting species.

The main origin of organic iodine in sea water appears to be marine algae. The mechanism for production of mono halogenated compounds involves a halide ion methyl transferase enzyme<sup>4</sup>, found in both macro algae (sea weeds) and micro algae (Phytoplankton) whereas di- and tri- halogenated hydrocarbon production involves the halo peroxidase enzyme, present in a wide range of terrestrial and marine organisms<sup>5,6</sup>. Oceans are main source of iodine which transfer to atmosphere through votaltilisation of mono halogenated compounds such as methyl iodide ( $\text{CH}_3\text{I}$ ), ethyl iodide ( $\text{C}_2\text{H}_5\text{I}$ ) and propyl iodide (1- and 2- $\text{C}_3\text{H}_7\text{I}$ ), more reactive polyhalogenatd compounds such as chloro iodo methane ( $\text{CH}_2\text{ICl}$ ), bromo iodo methane ( $\text{CH}_2\text{IBr}$ ) and di iodo methane ( $\text{CH}_2\text{I}_2$ ) and  $\text{I}_2$ . Due to their low solubility in water can become super saturated with iodo carbons causing a flux from aqueous to gaseous phase.

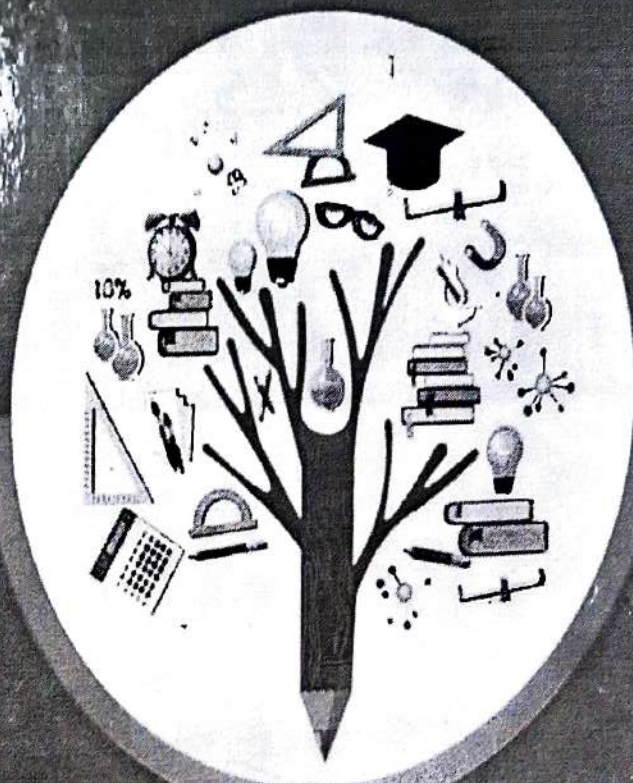
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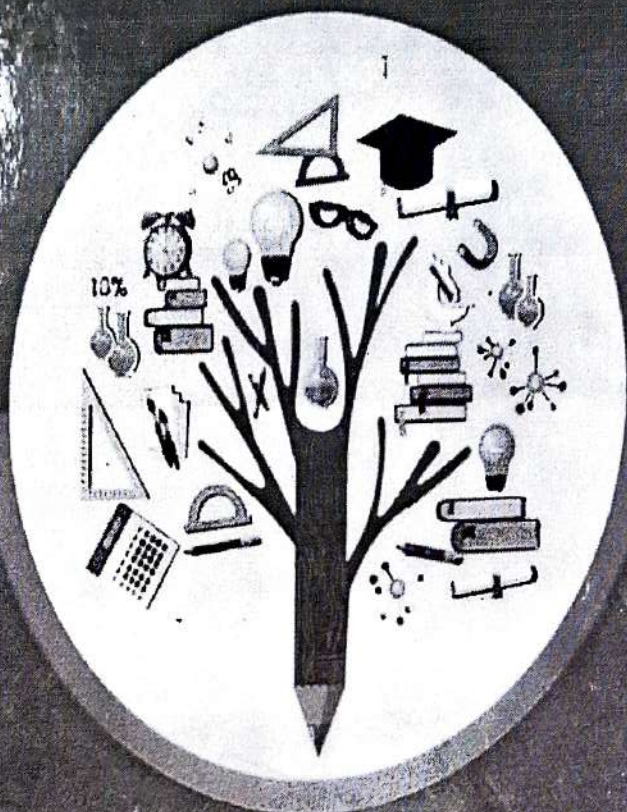
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 S.M.P. Govt. Girls P.G. College  
 Meerut



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# EPIC AND MYTHOLOGY

*Edited by*

**Anita Goswami**

  
Principal

S.M.P. Govt. Girls P.G. College  
Meerut

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NAAC Coordinator  
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1. Mythology a Big Umbrella  
— Prof. Uday Prakash Arora
2. Epic and Mythology a study in early Monastic  
to Modern Ascetic (An overview of ascetics in  
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ancient cultural)

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## Correlation Between Myth and Science

Rajeev Kumar (Asst. Prof.)\*

There are many things to the supernatural event in our ancient Indian epics, like the RAMAYANA, MAHABHARATHA, which are today widely accepted as myths and fancies. People were explained as being enormous, tall, and having lived for hundreds of years. And the weaponry was too destructive at the time to wipe out the entire battalion in a single shot. Is it feasible that our forefathers had significantly more advanced technology than we do now? But have you ever considered the possibility that they were real? In this post, I've attempted to provide scientific explanations for certain commonly held beliefs.

Relation between myth and science:

### 1. THE PUSHPAKA VIMANA, OR FLOWERY VEHICLE:

*Mythological Reference:* The Pushpaka Vimana was a swan-shaped flying vehicle with enough intelligence built

in to know its destination just by reading the pilot's mind. Ravana forcibly mounted Sita on this wonderful device and whisked her away from her husband, Rama, in a short time.

*Today's Science:* This machine could be compared to today's airplanes and spaceships. Even with all of the automation of the flight control and management systems, our flights today still require the pilot to run them. This History Channel video explains in scientific detail how many of these ancient references have influenced modern flying technologies. Flights are not exactly capable of reading

### 2. NONLINEAR TIME:

*Mythological Reference:* King Raivata traveled to another realm with his daughter Revathi to meet Brahma, the creator. He spends a day in that realm, but when he returns to Earth, he discovers that millions of years have gone. In Japanese folklore, there is also a story about a guy named Urashima Taro who traveled beneath the water and stayed three days there. When he returned, he had traveled 300 years into the future, and all of his relatives had died, and his home had been destroyed.

*Today's Science:* Einstein's Theory of Relativity is based on nonlinear time dilation and its relationship to light speed and space movement. This theme was popularised by the recent mega-hit film Interstellar.

### 3. MYTHICAL REFERENCE: LEARNING IN THE WOMB:

Abhimanyu is the son of Arjuna, the brave warrior. Arjuna extols the secrets of one particular military tactic while his wife is pregnant with Abhimanyu. After noticing that his wife had dozed off, he comes to a halt after only revealing the first half of the technique. Abhimanyu never

\* Dept. of Physics S.M.P. Govt. Girls P.G. College, Meerut

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## Introduction

If we trace the ancient history of India, one will marvel at the magnificent accomplishments of ancient Indians at a very early period, in the arts as well as in the sciences. "Vedas" are the scriptures of Hindus in India. The derived meaning of the very word "Veda" is that it is the fountain head and illimitable repository of all knowledge. The Vedas are widely known as four in numbers: Rigveda, Yajurveda, Samaveda and Atharvaveda. "Vedas" are also appended by four upavedas, namely, "Ayurveda" (Medical Science including anatomy, physiology, hygiene, surgery, etc.), "Dhanurveda" (Archery and other military Sciences), "Gandharvaveda" (the science and art of Music) and "Sthapatyaveda" (Engineering and Architecture), and six ancillary branches of knowledge called Sad-vedangas. These six "Sadvedangas" are "Siksha" (Phonetics), "Vyakarana" (Grammar), "Chandas" (metrics), "Nirukta" (Etymology), "Jyotisa" (the science of luminaries like Astronomy, Astrology, etc.) and "Kalpa" (ritual). All these subjects are inherent parts of Vedas. "Ganita" literally means "the science of calculation" and an ancient Hindu name for mathematics. "Sad-vedanga Jyotisa" (about 1200 BC) gives mathematics the highest place of honour among all the sciences which form Vedas. In the early works of, we find the beginning of Mathematics (Arithmetic, Geometry, Algebra, etc.) and Astronomy.

At the early Vedic period, "Ganita" included Astronomy, whereas Geometry known as "Ksetra ganita" were included in a different group of sciences known as "Kalpasashtra."

The Hindu "Ganita" of the early renaissance period comprised the following: "Parikrama" (the four principles of operation, namely, addition, subtraction, multiplication, and division), "Vyavahara" (Determinations), "Rasi" (Rule

## 3

### Aryabhata I: The Great Mathematician of Ancient India

Dr. Soshal\*

#### ABSTRACT

In ancient India, mathematical development became necessary for the religious practices and observances prevailing at that time. A good knowledge of mathematics and astronomy was essential to determine the exact time of the rising and setting of the Sun and Moon as well as the occurrence of Solar and Lunar eclipses. This in turn required a sound knowledge of plane and spherical geometry and trigonometry. Indian mathematics emerged in the Indian subcontinent from 1200 BCE until the end of the 18th century. In the classical period of Indian mathematics (400 CE to 1200 CE), important contributions were made by scholars like Aryabhata, Brahmagupta, Bhaskara II, and Varāhamihira. Susruta wrote on the sciences of Medicine and Surgery. In this chapter, we summarize the study of the work done by Aryabhata I.

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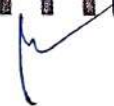
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## पूर्णतावादी व्यक्तित्व विकास के लिए सार्वभौमिक मूल्यों का शिक्षा में महत्व

डॉ. सुशील कुमार एवं डॉ. राकेश कुमार

दर्शन शास्त्र में वर्णित मूल्य मीमांसा के अनुसार क्या करना अच्छा है ? किसी व्यक्ति को क्या करना चाहिये ? क्या सही है? क्या गलत है? क्या करना सर्वोत्तम है? भद्र क्या है? अभद्र क्या है? शुभ आचरण के लक्षण क्या है? सौन्दर्य क्या है तथा उसके मापदंड क्या है? असुन्दर के लक्षण क्या है? आदि अनेक सार्वभौम प्रश्न ऐसे होते हैं। जिनका उत्तर मानव समाज सदियों से दृढ़ता चला आ रहा है मानवता के पक्ष में स्थापित आदर्श, नियम मूल्य कहलाते हैं। मानवता के विरुद्ध किया गया प्रत्येक कार्य अपराध कहलाता है।

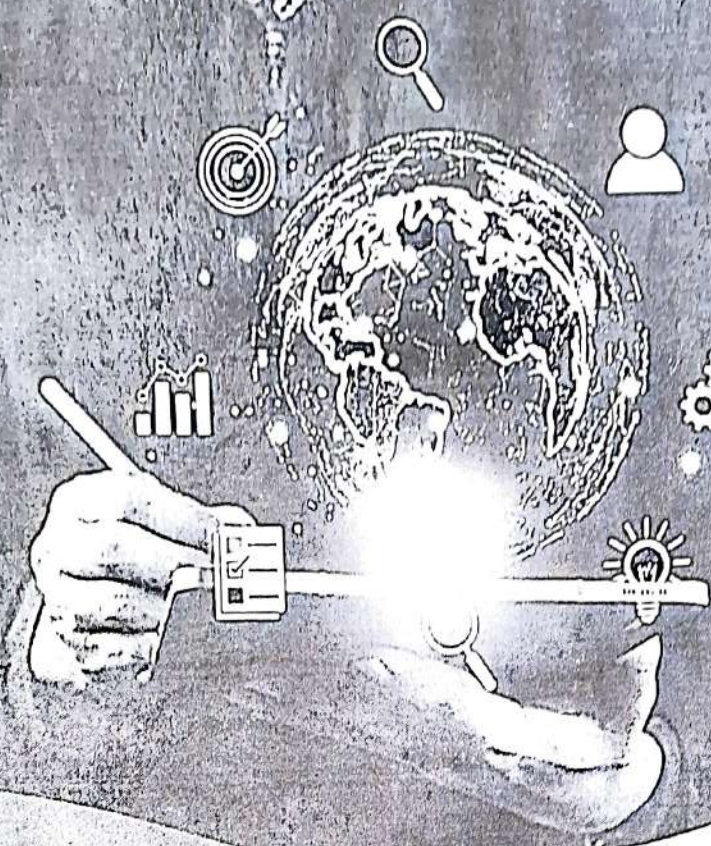
शिक्षा एक ऐसी प्रक्रिया है जो व्यक्ति के जन्म से लेकर मृत्यु तक चलती रहती है। बालक तीन साधनों से मूल्य शिक्षा प्राप्त करता है— पहला घर,

\* असिस्टेंट प्रोफेसर, शिक्षा विभाग डी०एन० (पी०जी०) कॉलेज, मेरठ

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## 14 CHAPTER

### PROBLEM OF WOMEN EDUCATION AND THE CONDITION OF WOMEN IN INDIA

*Dr. Sharad Pawar<sup>1</sup>*

#### Abstract:

Women education is very important for the proper social and economic growth of the country. Both men and Women are like two sides of the coin and they are equally like two wheels of the society. So both are necessary element of the growth and development in the country thus requires equal opportunity in the education. If anyone of both do not get proper education and opportunity, social progress is not possible. The female education in India is very necessary for the future of the country as women are the first teachers of their children means future of the nation. If educations of the women are getting ignored, it would be the ignorant of bright future of the nation. Uneducated women cannot actively participate in handling the family, proper care of the children and thus weak future generation. Lack of women education weakens the powerful part of the society. So women should have full rights for the education and should give proper education. They should not be treated as inferior to men. This paper tries to pick up the pictures of actual condition and social restriction problems which are mainly facing by Indian women in taking their education & all other important sectors of the country. This paper also tries to discuss proper & suitable necessary procedure for solving or removing this great problem.

**Keywords:** *Women education, Sexual harassment, Dowry system, Mental torture, Domestic violence etc.*

#### Introduction:

Girl children are valuable assets of parents. After getting suitable education they become helping hand and earning members of their family. In future female child takes more care of their old parents than male child. In recent times in our society being educated women decide to struggle like men by helping their family for earning money and select various important occupation such as doctors, nurses, police force, teachers, professor, civil officers etc. Now-a days, even politics they play a vital role. In many states of India, M.P members, political leaders even chiefministers are also women like Mamata Banerjee in West Bengal. Women are valuable thing of our country as they give birth to the future generation. If they would be well educated they would give rise educated future generation and thus healthy social and economic condition in India. The girls are very useful at home for carrying out domestic duties and so mothers are reluctant to send them to school. A large number of girl Childs in the rural areas are undernourished, they hardly have a square meal a day. In India the vast majority of the people are poor. They cannot afford to give education to all their children. When the choice comes, they prefer to invest on the education of sons rather than their daughters. It is believed that the sons will help the father in old age and on the other hand some time the girl will get married. She will go to some other family. So they do not care much for women education. Women are main backbone of our society. But in the country like India women are facing several difficulties for taking their education and most of them are neglected and deprived from education. Main problems in women education are domestic duty, social factors, conserve action mentality, lack of Girls school or co-

<sup>1</sup> Assistant Professor, S.M.P.Govt.Girls (P.G.)College Madhavpuram, Meerut



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# भारतीय राजनीतिक चिंतन की परंपरा

डॉ. नीशू कुमार



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## भारत में राजनीतिक चिंतन की परंपरा: एक परिचय

मुनेश कुमार\*

राजनीति एक प्राचीन कला है-शायद उतनी ही पुरानी जितना कि राज्य है। राजनीति विज्ञान वह विज्ञान है जिसमें राज्य और शासन की समस्याओं और समाज में शक्ति के औचित्यपूर्ण प्रयोग का अध्ययन किया जाता है।<sup>1</sup> लेकिन वर्तमान समय में राजनीति विज्ञान एक अनुशासन के रूप में अपने विकास की जिस अवस्था में है उसमें यह राज्य, सरकार, शासन, राज्य की उत्पत्ति, उसके विकास, स्वरूप, कार्यक्षेत्र तथा भविष्य के अध्ययन तक सीमित न होकर उससे कहीं अधिक वृहद, व्यापक एवं विस्तृत अध्ययन क्षेत्र का स्वामी बन गया है। व्यवहारवादी क्रांति के पश्चात् राजनीतिक प्रक्रिया, मानव का राजनीतिक व्यवहार, मतदान व्यवहार, राजनीतिक दलों की क्रियाविधि, दबाव समूहों की गतिविधि, शक्ति, सत्ता, वैधता, प्रभाव, अभिजन, लोकनीति राजनीति विज्ञान विषय के अन्तर्गत अध्ययन एवं शोध का मुख्य बिन्दु बने हुए हैं। आज का राजनीति विज्ञान एक अन्तःविषयी अनुशासन के रूप में पहचाना जाता है।

लेकिन एक महत्वपूर्ण प्रश्न जो राजनीति विज्ञान के किसी भी अध्येता, शोधकर्ता अथवा आचार्य के मस्तिष्क में उठता है या उठना चाहिये यह है कि, राजनीति विज्ञान

\*असिस्टेंट प्रोफेसर, राजनीति विज्ञान विभाग, शहीद मंगल पाण्डे राजकीय महिला स्नात्कोत्तर महाविद्यालय, मेरठ (उ.प्र.)

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शहीद मंगल पाण्डे  
राजकीय महिला स्नातकोत्तर महाविद्यालय  
मेरठ (उत्तर प्रदेश)



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जिसके चरणों में रहकर मैंने जीवन में  
कुछ कर गुजरने का सामर्थ्य पाया और हर संघर्ष से  
उबर कर जुनून-जिजीविषा के साथ निरंतर कर्म पथ पर  
आगे बढ़ती रही उसी प्यारी माँ को

समर्पित

यह काव्य संकलन

**Dr. S.P.S. Rana**  
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# भोजन, पोषण एवं स्वच्छता

Food, Nutrition and  
Hygiene

प्रो० (डॉ०) अंजू सिंह  
डॉ० गौरी गोयल

Principal

S.M.P. Govt. Girls P.G. College  
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साहित्य भवन पब्लिकेशन्स

भोजन, पोषण एवं स्वच्छता  
[FOOD, NUTRITION AND HYGIENE]

प्रो० (डॉ०) अंजू सिंह  
डॉ० गौरी गोयल

2022



Dr. S.P.S. Rana

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## महत्वपूर्ण प्रकाशन

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### B.A. 1st Year Semester I

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# गृह विज्ञान

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पोषण के मूल तत्व एवं मानव विकास  
Fundamentals of Nutrition and Human Development
- Paper 2 : Course Code-A130102P (Practical)  
पाक कला कौशल एवं पौष्टिक व्यंजन  
विविध विकास  
Cooking Skills and Healthy Recipe Development



डॉ० गौरी गोयल  
डॉ० संगीता तोमर

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Principal

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# गृह विज्ञान

## [HOME SCIENCE]

उत्तर प्रदेश के विभिन्न विश्वविद्यालयों/महाविद्यालयों में राष्ट्रीय शिक्षा नीति-2020 के अनुरूप च्वाइस बेस्ड क्रेडिट सिस्टम (CBCS) पर तैयार यूनितम समान पाठ्यक्रम (Common Minimum Syllabus) के अनुसार बी. ए. (प्रथम वर्ष) प्रथम सेमेस्टर हेतु शैक्षणिक सत्र 2022-23 से प्रभावी पाठ्यक्रमानुसार।

□ Paper 1 : Course Code-A130101T (Theory)

पोषण के मूल तत्व एवं मानव विकास  
[FUNDAMENTALS OF NUTRITION AND HUMAN DEVELOPMENT]

□ Paper 2 : Course Code-A130102P (Practical)

पाक कला कौशल एवं पौष्टिक व्यंजन विधि  
विकास  
[COOKING SKILLS AND HEALTHY RECIPE DEVELOPMENT]

लेखिका

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राजकीय महिला विश्वी कॉलेज, आनिका, बुलन्दशहर

2022



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- भूगोल —डॉ. चतुर्धन मासोरिया एवं डॉ. रतन जोशी
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- द्वितीय प्रश्न-पत्र : मानचित्र अध्ययन के तत्व एवं व्याख्या
- प्राचीन एवं प्रारम्भिक मध्यकालीन भारत (प्रारम्भ से 1206 A.D.)  
—डॉ. ए. के. शिखर
- गृह विज्ञान —डॉ. गीती गोपाल एवं डॉ. संगीता लोखर

## विषय-सूची

अवधि

भाग अ  
(Part-A)

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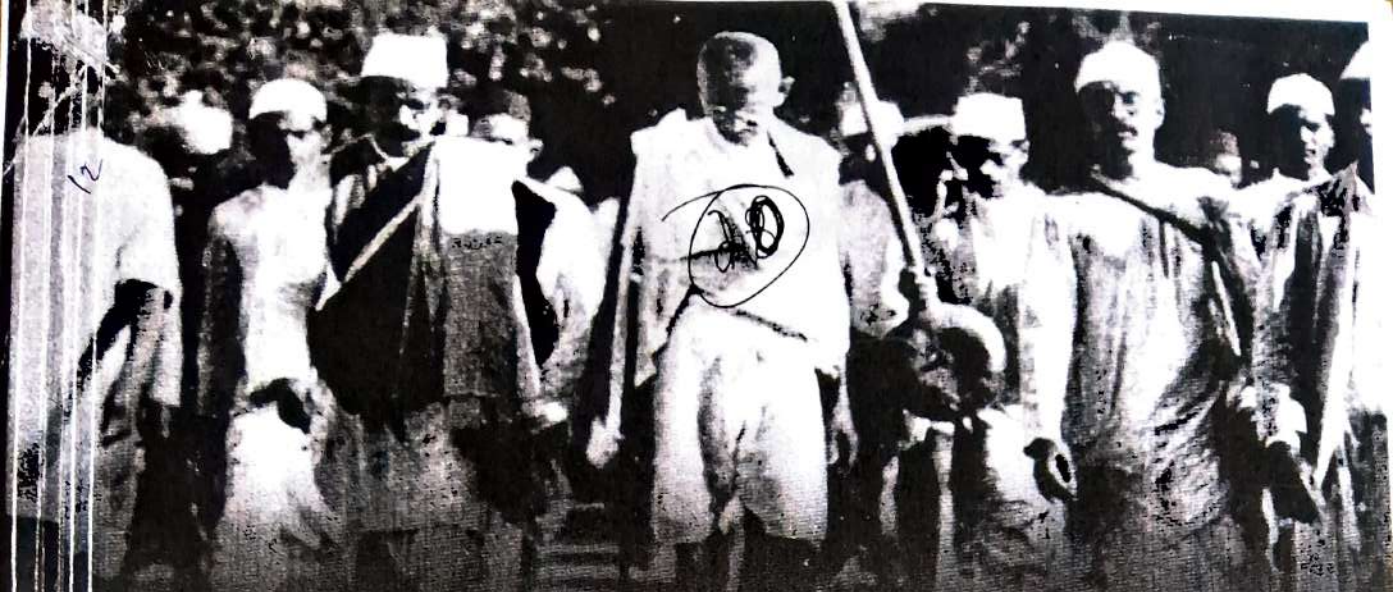
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# स्वाधीनता आंदोलन हिंदी साहित्य और समाज

डॉ. राजेश कुमार  
प्रो. नवीन चन्द्र लोहनी

Presented by  
M.P. Govt. Girls P.G. College  
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S.B. Rana  
M.C. Cooradia  
S.M. Govt. Girls P.G. College  
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कु० गीता<sup>1</sup>, डॉ० स्वर्णलता कर्दम<sup>2</sup>

भारतीय राष्ट्रीय स्वतंत्रता संघर्ष की शुरुआत 1850 के दशक में तीव्र रूप में हुई। इससे पूर्व राष्ट्रीयता का भाव स्थानीय तथा सीमित प्रभाव का था। जनजातियों तथा किसानों की राष्ट्रीयता ने जागृति का नया विहान किया। ब्रिटिश शोषण तथा निरंकुशता के कारण उठ खड़े हुए आंदोलन ने व्यापक रूप से हिंदी साहित्य को प्रभावित किया तथा इसे अधिक परिनिष्ठित और परिमार्जित करने में अपनी भूमिका निभाई। आधुनिक हिंदी साहित्य के उदय में यदि तत्कालीन परिस्थितियों का योगदान है तो युगीन परिस्थितियों और विचारधाराओं की भी अपनी भूमिका रही है। साहित्य हर युग में नवीनता और आधुनिकता का वाहक रहा है। यह नवोन्मेष का संचालक रहा है। सामाजिक-राजनीतिक तथा सांस्कृतिक परिस्थितियों में जन-आकांक्षाओं के अनुरूप जनता के आंदोलनों को प्रेरित करने की प्रक्रिया में 'आधुनिक काल' का प्रवर्तन हुआ।

आचार्य रामचन्द्र शुक्ल ने 'हिंदी साहित्य का इतिहास' में काल विभाजन में दो आधारों को महत्व दिया है— पहला, ऐतिहासिक विकास का आधार तो दूसरा, प्रवृत्तिगत आधार। इस विभाजन में आचार्य शुक्ल का विशेष ध्यान संबंधित काल की विशेषताओं की ओर रहा है। आधुनिक काल में विज्ञान और बौद्धिकता के विकास के साथ नवीन प्रवृत्तियों का उदय हुआ। इस युग के प्रवर्तन में भारतेन्दु हरिश्चन्द्र का योगदान महत्वपूर्ण था। इसीलिए ही इस कालखंड को भारतेन्दु युग की संज्ञा से अभिहित किया गया है।

आधुनिक काल की रचनाओं पर राष्ट्रीयता, समाज सुधार, देश वत्सलता, जागरण तथा विदेशी शक्ति के विरुद्ध तीव्र आक्रोश की प्रवृत्ति प्रमुखता के साथ दिखती है। अंग्रेजों के साथ भारतीय जनता का संघर्ष राजनीतिक रूप से 1857 के विद्रोह के साथ आरंभ हुआ। हिंदी साहित्य भी इस दौर में नई करवटें ले रही थी। आधुनिक साहित्यिक परिवेश को बाबू गुलाब राय ने इन शब्दों में व्यक्त किया है— "अंग्रेजी राज्य आने से लोगों का ध्यान जीवन की कठोर वास्तविकताओं की ओर गया। जीवन-संग्राम बढ़ा साथ ही जातीय जीवन में भी जागृति हुई। लोग अपनी सभ्यता को महत्व देने लगे। हिंदू लोगों ने विदेशी धर्मों का

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# Zindagi...!!! A WEB...!!!

(A Collection of True Stories)

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*Dedicated to  
My Sweetheart Son  
Jyoti Sawhney  
(The Best Gift from The Almighty)*

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# INDIAN ENGLISH LITERATURE

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## CHAPTER 22

## Women's Voice in the Writing of Partition

*Dr. Usha Sambyal and Kiran Arya*

Partition literature has a subtle and appealing depiction of the traumatic tragedy of partition. It has been a raucous period in Indian history. It is extremely difficult to express the feelings, observations and bearings on the critical mis-happening of partition in just a few words. It is an amalgamation of history, conflict studies, border studies, psychology, mental traumatic issues, inter and innermost struggles and politics. The multilayered dynamics of the partition of India are not only political but its metaphorical, symbolic pertinence and consequences, are remembered and revisited from multiple angles in partition literature. The literary portrayal of the partition brings the racial experiences of separation in which they had to face the harshest moments. It also contains a nation's intermediary and examines in-depth issues such as class, gender, religion, ostracisation, and the meaning of existence.

Independence for India came at a great cost which resulted in Partition becoming a historical event. It left a strong impact on India as well as Bangladesh and Pakistan. It was a period of overflowing with thirst for blood amongst two different religions. Partition witnessed the murders, rapes, disappearances, and end of relationships, loss of trust, faith and utter devastation felt by thousands of people leaving behind deep wounds that never could not stop and are still oozing out. A large number of stories have been written during the period of partition. Many female writers wrote to make people aware of the real incidents that happened while partition's happenings. Authors like Amrita Pritam, Khadija Mastur, Anita Desai, Manju Kapoor, Bapsi Sidhwa and Geetanjali Shree have written heart-wrenching stories about loss, barbarity and the consequence of forced migration that left innumerable people

homeless, poor and dying with hunger. Through the voices of the female authors, this research paper shall reveal the pathetic crises of massacres and women's subjugations, abductions, rapes and killing cruelties.

### Objective

Partition remains the recurring theme for literary writers as it seems to be an unresolved problem of the popular psyche on both sides of the border. Those women novelists wrote on this subject, they possess a direct or indirect connection to this period. They provide us a broad and factual information about this period when extreme racial discriminations were found. Human beings were turned into wild animals by deviating from the path of their religion and taking revenge by raping, and kidnapping women without any concern towards a religion. All Those women who were hijacked on kept captive by Muslim or Hindu men, became pregnant. When these women were brought to borders and announced for exchange, their parents, husbands, and brothers refuse to recognise them as their daughters, wives and sisters. It was an extremely heinous way of revenge in which women were crushed drastically. The Pain of separation can never be healed. Through the voice of women authors, is being shed light on the grey history of India during post-partition.

### Introduction

Partition novels based on social, economic and political surroundings that interpret the mental and physical trauma of human consciousness. It was a huge disaster in the field of Indian history and culture which shattered the values of humanity and generosity. The British rulers had drawn a line on our land by dipping their pen in the blood of innocent human beings and broke it into two pieces, India (the secular one) and Pakistan (reserved for Muslim Community). After dividing one country into two parts, they left India without resolving the problem of boundary issues, which have caused continuing discord between India and Pakistan. These

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 On the basis of religion, people were  
 denied **Meerut** this decree was forcefully migrated, killed, looted or



This book provides the biology, penetration and emergence behaviour of Hemipteran mermithid, *Hexameris vishwakarma* Dhiman that can be used as biological control agents against insect pests (*Leptocoris argus*) of the Kusam tree.

Thus, the entomophilic mermithids offer a promising potential for insect control and these nematodes have been used in different parts of the world as biological insecticides. But, in India, the economic value of mermithids in insect pest control does not appear to have been fully appreciated yet.

In India, field trials to control the insect pests utilising these nematodes are still awaited.

Experimental and field trials to control *Leptocoris argus* (Fabr.) by using *H. vishwakarma* have yielded significant success and its use as a biocontrol agent is suggested. However, the use of nematodes requires detailed studies on their ecological relationships with the insects prior to biological control operation.



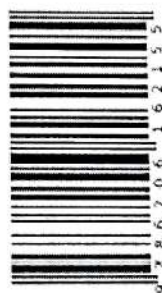
Dr KUMKUM RAJPUT

## Biology of Hemipteran Mermithids-Vol II

Biocontrol efficacy of *Hexameris vishwakarma* Dhiman



Dr Kumkum Rajput, M.Sc., M.Phil., PhD, in (Zoology) with a Specialization in Entomology. The author has a profound interest in Entomology and Nematology. She has authorship of Research papers and Books with National and International Publications (Trans. in B Lang.). Awarded by State level Award by Govt. of U.P. (India).



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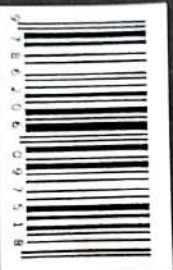
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## Biologia di Hemipteran Mermithids-Vol II

Questo libro fornisce la biologia, la penetrazione e il comportamento di emergenza del mermite embrio *Hexameris vishwakarma* Dhillon che può essere utilizzato come agente di controllo biologico contro gli insetti parassiti *Leptocoris augur* dell'albero *Kasam*. I mermidi entomofili offrono quindi un potenziale promettente per il controllo degli insetti e questi mermidi sono stati utilizzati in diverse parti del mondo come insetticidi biologici. Tuttavia, in India, il valore economico dei mermidi nel controllo degli insetti nocivi non sembra essere stato ancora pienamente apprezzato. In India si attendono ancora prove in campo per il controllo degli insetti parassiti con l'impiego di questi mermidi. I dati sperimentali e di campo per il controllo di *Leptocoris augur* (Fabr.) con l'uso di *H. vishwakarma* hanno dato risultati significativi e si ne suggerisce l'uso come agente di biocontrollo. Tuttavia, l'uso dei mermidi richiede studi ecologici sulle loro relazioni ecologiche con gli insetti prima dell'operazione di controllo biologico.



Dr. Kunkum Rajput, M.Sc., M.Phil., Ph.D. in Zoologia con specializzazione in Entomologia. L'autrice ha un profondo interesse per l'entomologia e la Nematologia. È autrice di lavori di ricerca e di libri con pubblicazioni nazionali e internazionali (trans. in 8 lingue). È stata insignita di un premio a livello statale dal Governo dell'U.P. (India).

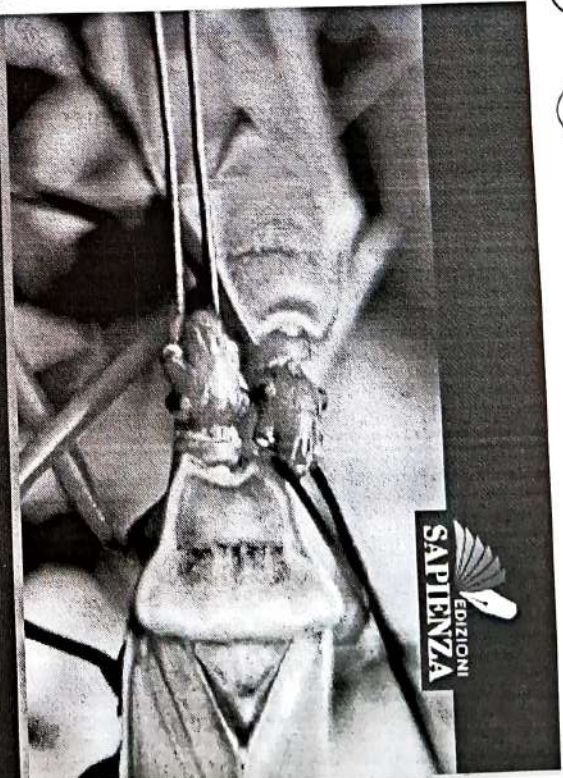


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## Biologia di Hemipteran Mermithids-Vol II

Efficacia di biocontrollo di *Hexameris vishwakarma* Dhillon

Dr. Kunkum Rajput

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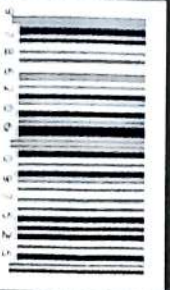
## Биология полужесткокрылых мермитидов-Том II

В этой книге рассмотрены биология, поведение, размножение и питание гемиптеров мериитидов, принадлежащих к отряду полужесткокрылых. В книге описаны все известные виды мериитидов, их распространение, экология, поведение, питание, размножение, развитие. Книга предназначена для широкого круга читателей, интересующихся биологией насекомых.

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Доктор Н. Н. Райнхарт, доктор биологических наук, кандидат философских наук, доктор биологических наук (Биология) со специализацией в энтомологии. Автор ряда работ по энтомологии, зоологии и биологии. Она является автором многих работ в области энтомологии и зоологии. Она является автором многих работ в области энтомологии и зоологии.



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Spanish Edition

## Biología de Hemipteran Mermithids- Vol II

Este libro presenta la biología y el comportamiento de penetración y emergencia del mermídeo hemiptero *Hexameris vishwakarma* Dhiman, que puede utilizarse como agente de control biológico contra plagas de insectos (*epitoxis augur*) del árbol Kusam.

Así pues, los mermídeos entomófilos ofrecen un potencial prometedor para el control de insectos y estos nemátodos se han utilizado en distintas partes del mundo como insecticidas biológicos. Pero, en la India, el valor económico de los mermídeos en el control de plagas de insectos no parece haberse apreciado aún plenamente.

En la India, todavía se esperan ensayos de campo para controlar las plagas de insectos utilizando estos nemátodos.

Los ensayos experimentales y de campo para controlar *Leptocryptis augur* (Fabr.) utilizando *H. vishwakarma* han tenido un éxito significativo y se sugiere su uso como agente de biocontrol. Sin embargo, el uso de nemátodos requiere estudios detallados sobre sus relaciones ecológicas con los insectos antes de la operación de control biológico.



Dr. Kumkum Rajput, M.Sc., M.Phil., PhD. in Zoology) con especialización en Entomología. La autora tiene un profundo interés en Entomología y Nematología. Es autora de trabajos de Investigación y Libros con Publicaciones Nacionales e Internacionales (Trans. en 8 lang.) galardonados con el Premio Estatal del Gobierno de I.P. (India).



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## Biología de Hemipteran Mermithids-Vol II

*Eficacia de biocontrol de Hexameris vishwakarma  
Dhiman*

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**Dr. S.P.S. Rana**  
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## Biologie des Hemipteran Mermithids-Vol II

Ce livre présente la biologie, la colonisation et le comportement d'émergence de l'hémiptère mermithide *Hexameris vishwakarma* Dhiman qui peut être utilisé comme agent de contrôle biologique contre les insectes nuisibles (*Leptocoris augur*) de l'arbre Kadam.

Ainsi, les mermithides entomophiles offrent un potentiel prometteur pour la lutte contre les insectes et ces nématodes ont été utilisés dans différentes parties du monde comme insecticides biologiques. Mais en Inde, la valeur économique des mermithides dans la lutte contre les insectes nuisibles ne semble pas encore avoir été pleinement appréciée.

En Inde, les essais sur le terrain pour lutter contre les insectes nuisibles à l'aide de ces nématodes se font toujours attendre.

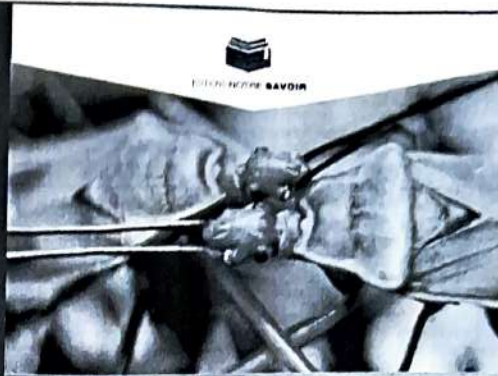
Des essais expérimentaux et de terrain pour lutter contre *Leptocoris augur* (Fab.) en utilisant *H. vishwakarma* ont donné des résultats significatifs et son utilisation comme agent de biocontrôle est suggérée. Cependant, l'utilisation de nématodes nécessite des études détaillées sur leurs relations écologiques avec les insectes avant l'opération de contrôle biologique.



Dr. Kumkum Rajput, M.Sc., M.Phil., Ph.D. in (Zoologie) avec une spécialisation en entomologie. L'auteur s'adresse de près à l'entomologie et à la nématologie. Elle est l'auteur de documents de recherche et de livres publiés à l'échelle nationale et internationale (traductions en 8 langues). Elle a reçu un prix au niveau de l'État par le gouvernement de l'U.P. (Inde).



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## Biologie des Hemipteran Mermithids-Vol II

Efficacité du biocontrôle de *Hexameris vishwakarma* Dhiman

Dr Kumkum Rajput

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## Biologie der Hemipteren- Mermithiden - Band II

Dieses Buch beschreibt die Biologie, das Eindringen und das Auftauchen des Hemipteren Hexameris vishwakarma Dhiman, der als biologisches Bekämpfungsmittel gegen Schädlinseitenleptocoris augur im Kusen-Baum eingesetzt werden kann.

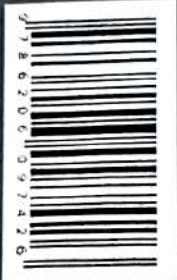
Die entomophilen Mermithiden bieten also ein vielversprechendes Potenzial für die Insektenbekämpfung, und diese Nematoden wurden in verschiedenen Teilen der Welt als biologische Insektizide eingesetzt. In Indien scheint der wirtschaftliche Wert der Mermithiden bei der Schädlingsbekämpfung jedoch noch nicht voll erkannt worden zu sein.

In Indien stehen Feldversuche zur Bekämpfung von Schädlinseiten mit Hilfe dieser Nematoden noch aus.

Experimentell- und Feldversuche zur Bekämpfung von Leptocoris augur (fabk.) mit H. vishwakarma haben zu bedeutenden Erfolgen geführt, so dass seine Verwendung als biologisches Bekämpfungsmittel vorgeschlagen wird. Der Einsatz von Nematoden erfordert jedoch detaillierte Studien über ihre ökologischen Beziehungen zu dem Insekt, bevor eine biologische Bekämpfung durchgeführt wird.



Dr. Kulkarni Rajput, M.Sc., M.Phil., Ph.D. in Zoology mit Spezialisierung auf Entomologie. Die Autorin hat ein tiefes Interesse an Entomologie und Nematologie. Sie ist Autorin von Forschungsarbeiten und Büchern mit nationalen und internationalen Veröffentlichungen (Trans. in 8 Sprachen). Ausgezeichnet mit dem State Level Award der Regierung von U.P. (Indien).



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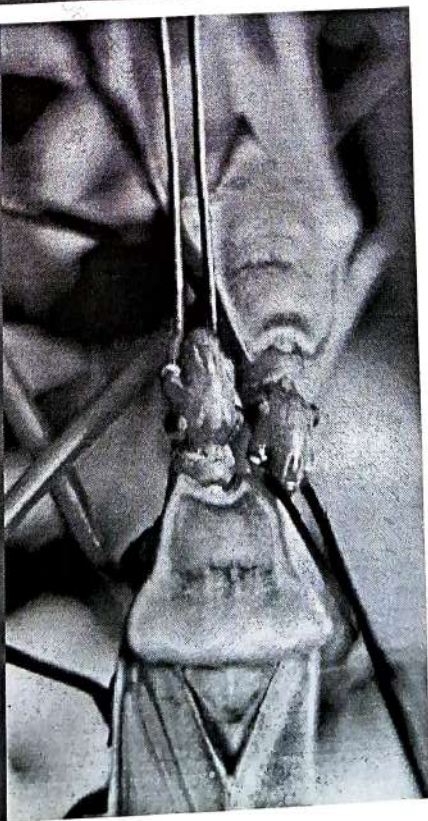
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## Biologie der Hemipteren- Mermithiden - Band II

Bioeffektivität von Hexameris vishwakarma  
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## Biologia de Hemiptera Mermithids-Vol II

Portuguese Edition

Este livro apresenta a biologia, a penetração e o comportamento de emergência do mermídeo *Hexameris vishwakarma* Dhiman, que pode ser utilizado como agente de controle biológico contra insetos pragas (*Leptocryptus augur*) da árvore *Kajm.*

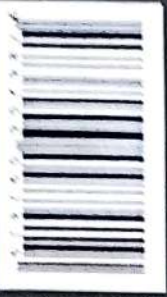
Assim, os mermídeos entomofílos oferecem um potencial promissor para o controle de insetos e estes insetos têm sido utilizados em diferentes partes do mundo como inseticidas biológicos. No entanto, na Índia, o valor econômico dos mermídeos no controle de insetos pragas parece ainda não ter sido totalmente apreciado.

No livro, ainda se seguem dois anos de campo para controlar as pragas de insetos utilizando estes mermídeos.

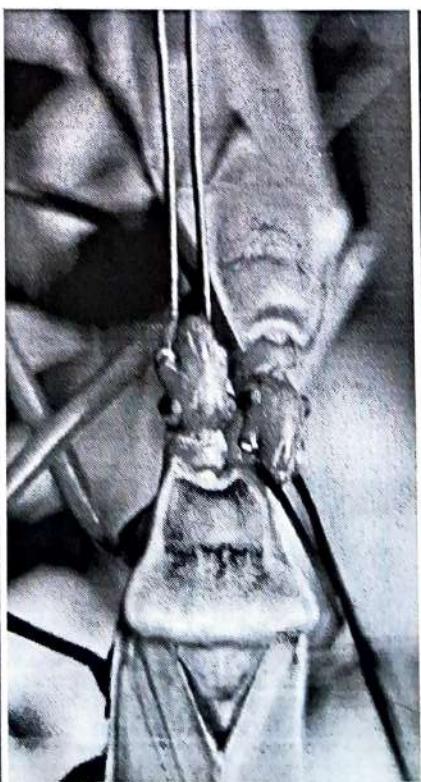
Os estudos experimentais e de campo para controlar *Leptocryptus augur* (fabr.) utilizando *M. vishwakarma* tiveram um alto significado e sugere-se a sua utilização como agente de biocontrole. Contudo, a utilização de mermídeos contra ervas daninhas perennantes, sobre as suas relações ecológicas com os insetos antes da operação de controle biológico.



Dr. Kumkum Rajput, M.Sc., M.Phil., PhD. Em (Zoologia) com uma especialização em Entomologia. A autora tem um profundo interesse em Entomologia e Hemipterologia, é autora de trabalhos de investigação e de livros com publicações nacionais e internacionais (Print, in 3 Languages). Foi graduada com um prêmio a nível estatal pelo Governo de U.P., Índia.



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## Biologia de Hemiptera Mermithids-Vol II

Eficácia do biocontrole de *Hexameris vishwakarma* Dhiman

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**Dr. S.P.S. Rana**  
NAAC Coordinator  
S.M.P. Govt. Girls P.G. College  
Meerut



ਰਾਸ਼ਟਰੀ ਭਿਖਾ  
ਰੀਤਿ 2020

# WILLIAM SHAKESPEARE



**Site selection was**

1. *What is the author's main purpose in writing this passage?*  
 a. To inform the reader about the history of the American South.  
 b. To persuade the reader that the American South is a better place than the North.  
 c. To entertain the reader with a story about a man who lived in the American South.  
 d. To describe the physical features of the American South.



卷之五



P. 11  
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श्री. आदित्य चंद  
श्री. अमित कुमार शर्मा

Dr. S.P.S. Ran,  
NAAC Coordinator,  
S.M.P. Govt. Girls P.O.



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## TEACHER EDUCATION IN NEP 2020

**Dr. Bhavna Singh**

---

### Teacher Education

It is imperative to invest in the preparation of teachers, so that the future of a nation is secure. Teacher education was teacher training. The educational policies are framed only to upliftment of education system. Teacher is the backbone of education system. Nothing could be successful without the efficient teacher. Therefore, it is necessary to give training to them regarding new curriculum and upliftment their level of teaching. The NEP 2020 frames the teacher education in higher education.

### NATIONAL EDUCATION POLICY (2020)

The new National education policy 2020 is India's third education policy which was approved by the union cabinet of India on 29 July 2020. The draft of NEP 2020 was prepared by a panel headed by Dr. Kasturirangan. Ministry of Education (Moe), formerly the Ministry of Human Resource Development (MHRD) has announced NEP 2020. NEP 2020 is the first 33 education policy of

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**Dr. S.P.S. Rana**, Assistant Professor, Department of Teacher Education, S.M.P.GOV.T. G.  
**NAAC Coordinator**, PG COLLEGE, MEERUT, U.P.  
**S.M.P. Govt. Girls P.G. Coll.**  
**Meerut**

Roshan Lal

Asstt Prof - Chemistry

2022-23

(Book Chapter)  
(Edited Book)

29  
3



Dr. Mohan Kumar is currently working as an assistant professor of Chemistry at Shri Varshney College, affiliated with Raja Mahendra Pratap Singh State University, Aligarh, U.P. He pursued his B.Sc., and M.Sc. degrees from Kirorimal College, University of Delhi. He has qualified for several competitive exams such as CSIR-NET JRF and GATE exams. He obtained his Ph.D. degree from the Department of Chemistry, University of Delhi. He has contributed several research publications in reputed international journals, and many book chapters. His research interests include Medicinal Chemistry, Nano Chemistry, Biochemistry, and Diverse issues related to Cancer and its treatment. He is a lifetime member of the DNA society of India and the Indian Biophysical society. He has experience teaching at India's top-ranked colleges such as Miranda House, and Zakir Hussain College, affiliated with the University of Delhi.



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# The Climate Crisis

## An Emerging Issue

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Department of Chemistry  
Shri Varshney College, Aligarh

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## Chapter 9

# Biodiversity and Environmental Conservation in Ancient India

Roshan Lal

Department of Chemistry,

Shaheed Mangal Pandey Government Girls P.G. College, Meerut

Email id – [roshanlal150770@gmail.com](mailto:roshanlal150770@gmail.com)

### Abstract

Our forefathers have a long history of devoted love and enthusiasm for the natural world. Indian customs, festivals, and traditions were important for environmental preservation. They participated in several ceremonies and rituals that proactively safeguard the environment. They were quite appreciative of their intimacy and sense of community in nature. Knowing our predecessors' way of life and customs is even more crucial today when the entire globe is dealing with significant issues like ecological imbalance, global warming, climate change, a lack of biodiversity, and environmental degradation. The combination of subatomic particles, which also have an impact on the five major elements of Earth, Water, Fire, Air, and Space, creates the entire cosmos. These five basic ingredients are necessary for all living things to survive. The devotion to protecting the environment and preserving the heritage of our forefathers will be better-understood thanks to the current study. In the era of consumerism, knowing how to preserve the environment is also helpful.

**Objectives:** The knowledge of environmental preservation, ecological conservation, and biodiversity is abundant in the writings of our forefathers. Sadly, younger people have forgotten about our wonderful historic literature. It is our duty to bring attention to this esteemed environmental literature. The major goals of this essay are to stir up our children's still-frozen minds and for them to act like responsible adults and environmentalists.



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4<sup>th</sup> Sem

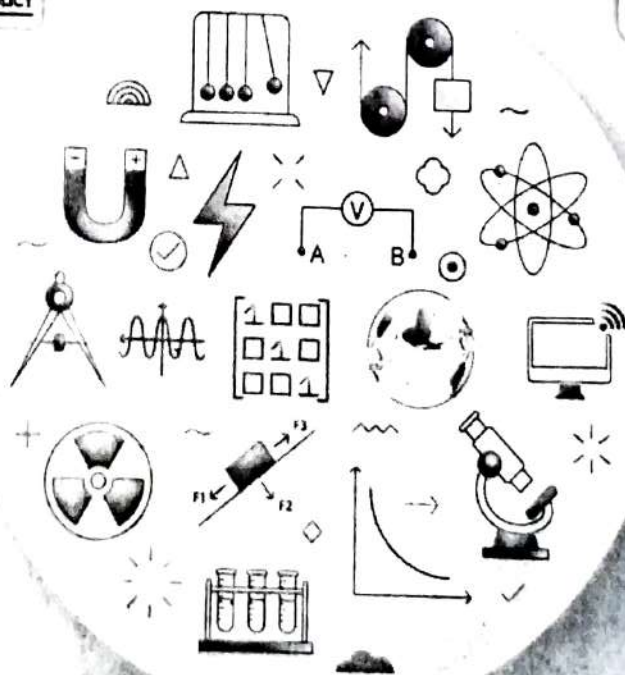
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| T.B.: आधुनिक भौतिकी के परिप्रेक्ष्य                                         | - कुमार व अन्य     |
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| T.B.: बेसिक इलेक्ट्रॉनिक्स                                                  | - गंगवार व अन्य    |
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# गृह विज्ञान (33)

## HOME SCIENCE

### ► Paper 1 : Theory

वस्त्र व परिधान विज्ञान का परिचय  
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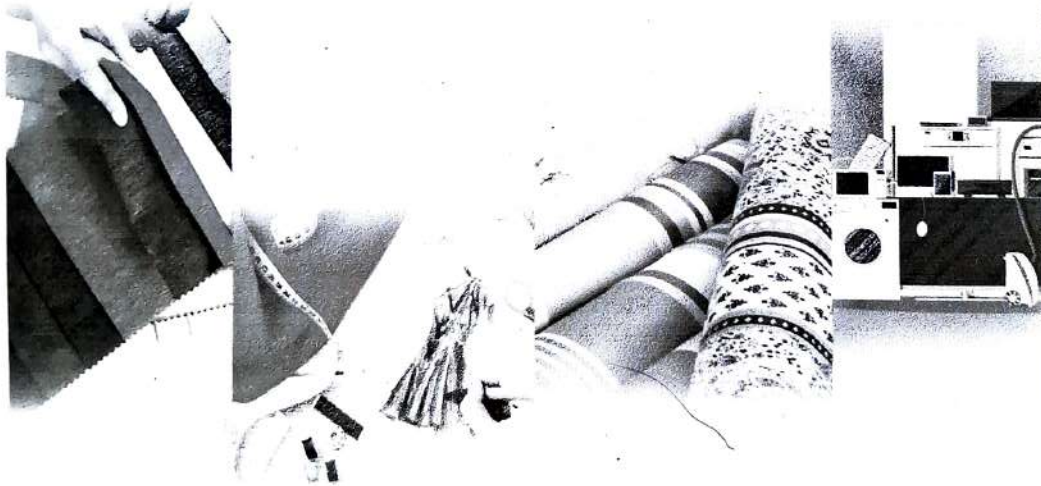
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वस्त्र एवं परिधान

Clothing and Textiles

डॉ० गौरी गोयल

डॉ० संगीता तोमर



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# गृह विज्ञान

[HOME SCIENCE]

उत्तर प्रदेश के विभिन्न विश्वविद्यालयों/महाविद्यालयों में गवर्नर शिक्षा नीति-2020 के अनुरूप छात्रस बेस्ड कीडर सिस्टम (CBCS) पर तैयार न्यूनतम ममान पाठ्यक्रम (Common Minimum Syllabus) के अनुसार डॉ. ए. संमंदर द्वितीय श्रेणी प्रशिक्षक सत्र 2021-22 से प्रभावी पाठ्यक्रमानुसार।

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Dr. S.P.S. Rastogi  
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## विषय-सूची

पृष्ठ

प्रथम खण्ड  
(Part-A)

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2023



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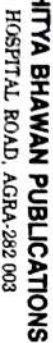
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# गृह विज्ञान

HOME SCIENCE

डॉ० गौरी गोयल



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साहित्य भवन पब्लिकेशन्स

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# गृह विज्ञान

[HOME SCIENCE]

लेखक

डॉ० गौरी गोयल

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2023



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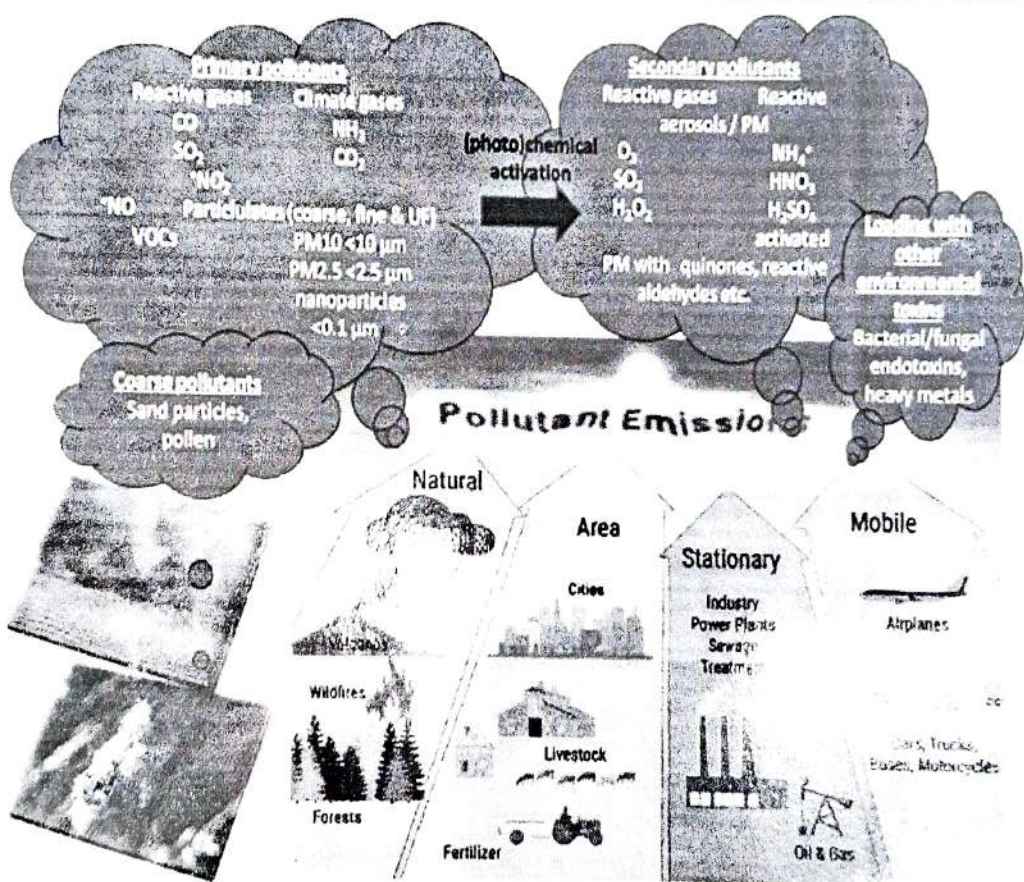
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# Environmental Pollution: Challenges and Remedies

(पर्यावरण प्रदूषण: चुनौतियाँ एवं समाधान)



Editor: Dr. Mitra Pal Singh



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# A Review on Air, Water and Soil Pollution

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**Dr. Daisy Verma**

Department of Physics  
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The word "Pollution" means contamination. This contamination may be of different types like contamination in air, water, soil, noise, thermal, radiation and E-waste etc. For example: when we perform a number of daily activities such as bathing and washing of clothes with soaps and detergents. By doing so, we add some chemical residue to water and change its quality. This water may mix with the water of ponds and rivers due to ignorance and carelessness. In our country we worship all rivers but on the contrary make them dirty by disposing water bottles, wrappers, eatable substances etc. This is a one type of pollution called water pollution and similarly in air by adding toxic components, smoke and smog make air pollution. Soil pollution is defined as, "contamination of soil by human and natural activities which may cause harmful effect on living organisms". In this review paper we have tried to discuss three types of pollution named air, water and soil pollution in detail and also tried to find out the various ways to reduce the pollution in our country.

## 1. Introduction

Pollution is the introduction of contaminants into the natural environment that causes adverse change. Pollution can take the form of chemical substances or energy such as noise characteristics of air, water and soil which causes the health problems like, heat or light. Environmental pollution means adding the impurities to the environment. It is an undesirable change in chemical, physical and biological characteristics of air water and soil which causes the health problems to all the living beings. Environmental pollution is one of the most serious problems facing humanity and other

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# Computation Tool for Prediction and Analysis of Genomic Islands

Muskan Sharma, Sushil Kumar, Gourav Choudhir, Anju Singh,  
Anu Dalal, and Anuj Kumar

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## Abstract

The genomic island (GI) is a discrete cluster of genes in prokaryotic genomes acquired through horizontal gene transfer (HGT). GI includes genes having significant roles in genome evolution and adaptation to the changed environment. Genomic islands may be pathogenicity islands (PAIs), metabolic islands (MIs), secretion islands (SIs), symbiotic islands (SymIs), etc., according to the traits they carry. Major characteristics of GIs exhibit are sporadic distribution, large size, sequence composition, inserted adjacent or near to tRNA genes, and mobility genes. Prediction of genomic islands can be performed via experimental and/or computational methods. Sequence composition and comparative genomics are the two major approaches to predict GIs at the level of single genome and related genomes, respectively. Several computational tools have been designed and developed by researchers to predict the presence, type, transmission, and origin of genomic islands. Representatives of window-based programs are AlienHunter,

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*Innovations in Biotechnology*

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# **ALGAL METABOLITES**

*Biotechnological, Commercial,  
and Industrial Applications*

*Edited by*

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## CHAPTER 3

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# HALIDE METABOLITES FROM THE ALGAL BIOMASS: A PROMISING THERAPEUTIC FOR TARGETING RARE DISEASES

SUSHIL KUMAR,<sup>1</sup> GOURAV CHOUDHIR,<sup>2</sup> and ANKIT SINGH<sup>2</sup>

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### ABSTRACT

Secondary metabolites constitute a wide and varied group of organic compounds. All photoautotrophic organisms, from algae to higher plants, synthesize and accumulate different kinds and amounts of these compounds. Marine habitat is full of surprises as it harbors a vast variety of micro and macro-organisms equipped with a rich library of secondary metabolites. Marine algae exhibit antibacterial, antioxidant, anti-inflammatory, antidiabetic, anticancer, antiobese, antimalarial, antihyperlipidemia, anticoagulant, hepatoprotective, antiangiogenic, and other activities. Halogenated secondary metabolites are good sources of a large number of pharmaceuticals. Numerous studies are ongoing to find and identify pharmaceutically active products which may be an alternative to synthetic drugs in the near future. The synthetic drugs are expensive along with several side effects on the patient's body. Macroalgae are comparatively more explored than microalgae for halogenated secondary metabolites. Different categories of halides from red algae are sesquiterpenes.

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## Digitalization of Education: Perspectives and Challenges in changing Paradigms of NEP 2020

Dr. Richa Rana

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### Introduction:

Technology has always been a crucial part since it has been developed. World cease to move forward without the innovation in the field of technology specifically. It has made a base for the creation of new dimensions of universe. Undoubtedly the technological needs were felt earlier as well but this specific period had shown how much we need to progress to catch everything up when the time is trying to push everyone backward with the spread of diseases. Technology can't be restricted to a specific dimension thus education hasn't been an exception. New technologies and ways to use existing technologies have been evolved to shape the day to day needs of education. From maintaining records of students enrolled to carrying out examinations online we have travelled a lot in the field of education with the help of technology.

---

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