



# RECHERCHE

A DIGEST OF MULTIDISCIPLINARY EXPLORATIONS  
(PEER REVIEWED)



# R D

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# CONTENTS

1. “I am the girl that things happen to”:  
The Unapologetically Articulate Modern  
Heroine in Fleabag  
*Prathibha P.*..... 13
2. Justice, Equity and Good Conscience & Pattern and  
Structure of ‘Kana- Janma Maryada’  
In The Social and Political Life of  
Pre- Colonial Malabar  
*R. Sajan* ..... 23
3. Hedging Effectiveness of Commodity  
Futures Contracts in India: An Empirical Analysis  
*Aparna K Benny, Nithin Jose*..... 51
4. A Comparative Study on the Effect of Different  
Leaf Substrates on Earthworm (*Perionyx Excavatus*)  
Reproduction and Vermicompost Quality  
*Rini Joseph, Job Liyo* ..... 63
5. Corporate Social Responsibility:  
Transformation during Covid 19 Pandemic  
*Shaswati T* ..... 79
6. A Preliminary Checklist on Mosquito Vector  
Diversity in Mananthavady Taluk,  
Wayanad District of Kerala  
*Maiby Thankachan, Sebastian C. D,  
Sreevidhya. P, Sheeja U M.*..... 87
7. Review on scarabiasis, a rare infestation of  
Scarab beetles in human intestine!  
*Sreevidhya P. Akhil S. V., Sebastian C. D.* ..... 96
8. Endemic Dung Beetles Associated with a  
Plantation Belt of South Western Ghats  
*Subha Babu Jayaprakash, Sabu K. Thomas* ..... 105
9. An Invisible life of Transgenders : A Study of Mahesh  
Dattani’s Seven Steps Around The Fire  
*Pilcy Peter* ..... 116

10. Nine new records of mites associated with Bamboos from Kerala, India  
*Vibija C. P, Ramani Neravathu* ..... 121
11. The ‘Other’ Brothers at Our Doors: The Challenges Posed by the Influx of Migrant Labour in Kozhikode  
*Priyadarsini P.* ..... 150
12. Application of Queuing Theory in Industrial Problem  
*Priya K* ..... 172
13. Synthesis of Silver Nanoparticles from Mango Pulp and Its Antioxidant Property  
*Nishi Ann, Fidha Rafeeq C, Niranjana U, Rushda AC, Saranya TV, Sharika AP* ..... 183
14. The Prodigious Functioning of Public Health System in Kerala  
*Remmiya Rajan P.* .....195
15. Vertex Cover, Dominating Sets And The Relation Between Them  
*Aiswarya Paul*.....213
16. A Partial List of Moths (Lepidoptera: Heterocera) from Kozhikode District, Kerala, India  
*Abhilash Peter, Adarsh P. K.*.....219
17. Preliminary studies on house infesting Termites (Blattodea: Isoptera) of Wayanad (Kerala, India)  
*Amina Poovoli P. P Rabeeha K. Rajmohana* .....228
18. Gendered Spaces and The Woman Question  
*Surya K*.....236
19. Impact of Civilian Organisations on Tribal Education: A Study of Educational NGOs in Wayanad  
*K T Vidya*.....246
20. Analysis of Phytochemicals and Antioxidant Enzymes of Fresh and Gall Infected Leaves of *Litsea coriacea* Extract (Lauraceae)  
*Julie. E, Julia Mary Thomas, Amritha Laxmi C, Amala George K, Anagha KC, Angel d’ Souza,*

	<i>Athira K, Hiba Fathima V, Keerthana. V, Krishnapriya K, Nitha K.M, Varsha Raju, Akhilesh V. P, Vijeesh</i> .....	264
21.	The History of Emotions: A Paradigm Shift <i>Saleena K.K</i> .....	294
22.	Efficacy of Ginger Leaf Extract on the Digestive Enzymes of <i>Sitophilus oryzae</i> <i>Sangeetha G. Kaimal, Lakshmi Krishnakumar, Nivya K.G, Lakshmi Vinod, Arya T.P, Shiviya Santhosh, Fathima Nasrin A.K, Aleena A, Keerthana S, Aleena Sajeevan K, Jikki M Roy, Sreevidya M, Akhilesh V.P, Vijeesh</i> .....	301
23.	Synthesis of Silver Nanoparticles from Mango Pulp and Its Antibacterial Property <i>Nishi Ann, Arunima Sreenivasan, Akshaya S, Arya E K, Bhavyasree S, Fathima Nisana VP, Ladeeda,</i> .....	323
24.	Physico-Chemical Analysis of Well Water in Mavoor Region, Calicut District, Kerala <i>Anu Jose, Ann Theres, Anisha Mathew, Aiswarya Sivanandan</i> .....	333
25.	Studying War History And Exploring Battlefield Tourism: An Emerging Trend <i>Shan Eugene Palakkal</i> .....	345
26.	Semi-Invertibility of the Related Spaces of Topological Space <i>Neethu M., Anjaly Jose</i> .....	347
27.	Baker Map and its Dynamical Properties <i>Nitha Niralda P C</i> .....	359
28.	Pythagorean Fuzzy Soft Groups <i>Athira TM, Sunil Jacob John</i> .....	365

# Vertex Cover, Dominating Sets And The Relation Between Them

Aiswarya Paul<sup>1</sup>

## Abstract

Vertex cover and dominating sets are two different subsets of the vertex set of a graph which try to cover the entire graph through two different perspectives. While the former covers the edges of the graph, the latter covers its vertices. Just the understanding of the definitions and examples of both induces a dubiety of whether both the sets are equal or whether they can be made equal. This paper attempts to comprehend this by exhibiting a relation between the two sets for simple connected graphs. The case of non- simple, unconnected graphs are entirely different.

Keywords: Simple connected graph, vertex cover, dominating sets, minimal vertex cover, minimal dominating set.

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