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Study of Anxiety Level Between Team Games and Individual Game Players of Belapur   Sanjay Nawale   Sanjay	ACT OF CALL PARTY OF THE PARTY		Name and Address of the Owner, when
86 Belapur Sanjay Nawale 57 Physical Literacy: A Theoretical Concept Elroy Pinto 330 58 Yoga and Stress 59 Approach of Parents towards Female Participation in sports Shrinivas Patil 342 60 Arvind Adiga's the White Tiger is Study of Social Issues Prof. Santosh Akhade 61 A Study of Postmodern Cyberpunk Science Fiction in Gibson's Neuromancer Ramadas Banasode 62 Librarian's Role in Managing the open Data Mrs. Bhakti Gole 63 M Commerce: The Users Perspective Vaibhav Bhalerao 64 Changing Buying Behavior of Indian Consumers Dr. Vishwas Chavan 65 Growth of E-Commerce in India Prof. N.B. Kale & Prof. B.K. Nagare 66 Effectiveness of Co-Operative Strategies in Mathematics Learning 67 Challenges in Using Mobile Banking Services Dr. Bharati Khasnis 68 Role of Lead Bank in Financing the Small-Scale Industry in Sindhudurg District 69 Mr. Prakash Masurkar 69 Problems & Remedies of Rural Entrepreneurship in Konkan 69 Prof. Santosh Mengal 70 Biodiversity and Environmental Balance Prof. Santosh Mengal 71 Expected Benefits of the Risk Management to Improve the Performance 72 Rameshwar Swami 73 Physicochemical Analysis of Pond Water of Ramasle Village, in Solapur 74 District, Maharashtra, India Ashok Kadam, Rajesh Bopalkar, Sameer B. Patil 75 An Analytical Study of Electronic Payment Systems in India 76 Mr. Somnath Patharkar 77 A Paradigm Shifting of Indian Traditional Economy Market to Emerging 78 Economy Market 79 अमेमकाश बाल्मीकि के काट्य में दलित विमाग 79 वर्तमान समाज में बढ़ते अपराध- एक अध्ययन 71 उर्द विमाग 71 वर्तमान समाज में बढ़ते अपराध- एक अध्ययन 72 हो विमाग 73 वर्तमान समाज में बढ़ते अपराध- एक अध्ययन 74 हो विमाग 75 वर्तमान समाज में बढ़ते अपराध- एक अध्ययन 76 हो विमाग 77 वर्तमान समाज में बढ़ते अपराध- एक अध्ययन 78 चंद्रमेल विराट की गज़लों में सामाजिक चेतना श्री. सिकाजी कांबळ, हाँ. बळवंत दामाढे 441 78 वर्तमान समाज में बढ़ते जाराधी मापा याचे तीलिनक अध्ययन 80 अमेमकाश वाल्मीकि के काट्य में दलित विमाश 81 व्यवहाराची भाषा व वाद्राची भाषा याचे तीलिनक अध्ययन 81 वळवंत दामाढे 446	55		324
58Yoga and StressDr. B. W.Mane33859Approach of Parents towards Female Participation in sportsShrinivas Patil34260Arvind Adiga's the White Tiger is Study of Social Issues Prof. Santosh Akhade34661A Study of Postmodern Cyberpunk Science Fiction in Gibson's Neuromancer Ramadas Banasode34962Librarian's Role in Managing the open DataMrs. Bhakti Gole35363M Commerce: The Users PerspectiveVaibhav Bhalerao35964Changing Buying Behavior of Indian ConsumersDr. Vishwas Chavan36965Growth of E-Commerce in IndiaProf. N.B. Kale & Prof. B.K. Nagare37466Effectiveness of Co-Operative Strategies in Mathematics Learning37967Challenges in Using Mobile Banking ServicesDr. Babasaheb Mali38268Role of Lead Bank in Financing the Small-Scale Industry in Sindhudurg District38669Problems & Remedies of Rural Entrepreneurship in Konkan39470Biodiversity and Environmental BalanceProf. Anand Bandekar39871Effect of Sports Participation by The Parent on Physical Fitness of Their Child Mr. Jayashing Naik40272Expected Benefits of the Risk Management to Improve the Performance Rameshwar Swami40673Physicochemical Analysis of Pond Water of Rammasle Village, in Solapur District, Maharashtra, India Ashok Kadam, Rajesh Bopalkar, Sameer B. Patil41074Role of Innovation in women Entrepreneurship and Empowerment: an Empirical Research41175An Analy	56		327
59 Approach of Parents towards Female Participation in sports Shrinivas Patil 342 60 Arvind Adiga's the White Tiger is Study of Social Issues Prof. Santosh Akhade 61 A Study of Postmodern Cyberpunk Science Fiction in Gibson's Neuromancer Ramadas Banasode 62 Librarian's Role in Managing the open Data Mrs. Bhakti Gole 63 M Commerce: The Users Perspective Vaibhav Bhalerao 359 64 Changing Buying Behavior of Indian Consumers Dr. Vishwas Chavan 369 65 Growth of E-Commerce in India Prof. N.B. Kale & Prof. B.K. Nagare Effectiveness of Co-Operative Strategies in Mathematics Learning Dr. Bharati Khasnis 379 66 Effectiveness of Co-Operative Strategies in Mathematics Learning Dr. Bharati Khasnis 379 67 Challenges in Using Mobile Banking Services Dr. Babasaheb Mali 382 68 Role of Lead Bank in Financing the Small-Scale Industry in Sindhudurg District Mr. Prakash Masurkar 386 69 Problems & Remedies of Rural Entrepreneurship in Konkan Prof. Santosh Mengal Prof. Santosh Mengal 394 70 Biodiversity and Environmental Balance Prof. Anand Bandekar 398 71 Effect of Sports Participation by The Parent on Physical Fitness of Their Child Mr. Jayashing Naik 402 72 Expected Benefits of the Risk Management to Improve the Performance Rameshwar Swami 406 73 Physicochemical Analysis of Pond Water of Rammasle Village, in Solapur District, Maharashtra, India Ashok Kadam, Rajesh Bopalkar, Sameer B. Patil Role of Innovation in women Entrepreneurship and Empowerment: an Empirical Pushpalata Patil & Deepali Patil An Analytical Study of Electronic Payment Systems in India Mr. Somnath Patharkar 422 76 A Paradigm Shifting of Indian Traditional Economy Market to Emerging Economy Market 91 Aprendia Balbhim 425 78 वंदिन विभाग 31 कंदिन विभाग 32 कंदिन विभाव उनके कंदिन विभाव उनके 31 कंदिन विभाव उनके 32 कंदिन विभाव उनके 33 अमामकाश वाल्पीकि के काल्य में दलित विभाव 32 कंदिन विभाव उनके 33 अमामकाश वाल्पीकि के काल्य में दलित विभाव 33 कंदिन विभाव उनके 34 441  80 अमामकाश वाल्पीकि के काल्य में दलित विभाव 342 कंदिन विभाव उनके 343 केवि	57		330
1 Arvind Adiga's the White Tiger is Study of Social Issues Prof. Santosh Akhade 1 A Study of Postmodern Cyberpunk Science Fiction in Gibson's Neuromancer Ramadas Banasode 2 Librarian's Role in Managing the open Data Mrs. Bhakti Gole 3 M Commerce: The Users Perspective Vaibhav Bhalerao 4 Changing Buying Behavior of Indian Consumers 4 Dr. Vishwas Chavan 4 September 1 September 2 September 2 September 3 September 2 September 2 September 3 September 2	58	Yoga and Stress Dr. B. W.Mane	338
A Study of Postmodern Cyberpunk Science Fiction in Gibson's Neuromancer Ramadas Banasode 62 Librarian's Role in Managing the open Data Mrs. Bhakti Gole 63 M Commerce: The Users Perspective Vaibhav Bhalera 64 Changing Buying Behavior of Indian Consumers 65 Growth of E-Commerce in India Prof. N.B. Kale & Prof. B.K. Nagare 66 Effectiveness of Co-Operative Strategies in Mathematics Learning 67 Challenges in Using Mobile Banking Services 68 Role of Lead Bank in Financing the Small-Scale Industry in Sindhudurg District Mr. Prakash Masurkar 69 Problems & Remedies of Rural Entrepreneurship in Konkan 69 Problems & Remedies of Rural Entrepreneurship in Konkan 69 Prof. Anand Bandekar 70 Biodiversity and Environmental Balance Prof. Anand Bandekar 71 Effect of Sports Participation by The Parent on Physical Fitness of Their Child Mr. Jayashing Naik 72 Expected Benefits of the Risk Management to Improve the Performance Rameshwar Swami 73 District, Maharashtra, India Ashok Kadam, Rajesh Bopalkar, Sameer B. Patil 74 Role of Innovation in women Entrepreneurship and Empowerment: an Empirical Research Pushpalata Patil & Deepali Patil 75 An Analytical Study of Electronic Payment Systems in India 76 Aradigm Shifting of Indian Traditional Economy Market to Emerging Economy Market Mudiraj Narendra Balbhim 77 afdrin समाज में बढ़ते अपराध- एक अध्ययन 78 चंद्रसेन विराट की गज़लों में सामाजिक चेतना श्री.भिकाजी कांबळ, डॉ.सुनील बनसोडे 435 79 ओमप्रवाश वाल्मीकि के कांब्य में दलित विमर्श डॉ. देवीदास बोर्ड 441 80 अोमप्रवाश वाल्मीकि के कांब्य में दलित विमर्श डॉ. देवीदास बोर्ड 441 80 अोमप्रवाश वाल्मीकि के कांब्य में दलित विमर्श डॉ. देवीदास बोर्ड 441 81 व्यवहाराची भाषा व वाद्याची भाषा यांचे तीलनिक अध्ययन डॉ. बळवंत दामाडे 446	59	Approach of Parents towards Female Participation in sports Shrinivas Patil	342
101 Ramadas Banasode 102 Librarian's Role in Managing the open Data Mrs. Bhakti Gole 103 M Commerce: The Users Perspective Valibav Bhalerao 105 M Commerce: The Users Perspective Valibav Bhalerao 106 Mrs. Bhakti Gole 107 Challenging Buying Behavior of Indian Consumers 108 Effectiveness of Co-Operative Strategies in Mathematics Learning 109 Dr. Bharati Khasnis 109 Dr. Bharati Khasnis 109 Dr. Bharati Khasnis 100	60		346
63 M Commerce: The Users Perspective Vaibhav Bhalerao 359 64 Changing Buying Behavior of Indian Consumers Dr. Vishwas Chavan 369 65 Growth of E-Commerce in India Prof. N.B. Kale & Prof. B.K. Nagare 374 66 Effectiveness of Co-Operative Strategies in Mathematics Learning Dr. Bharati Khasnis Dr. Bahasaheb Mali 382 67 Challenges in Using Mobile Banking Services Dr. Bahasaheb Mali 382 68 Role of Lead Bank in Financing the Small-Scale Industry in Sindhudurg District Mr. Prakash Masurkar Problems & Remedies of Rural Entrepreneurship in Konkan Prof. Santosh Mengal 70 Biodiversity and Environmental Balance Prof. Anand Bandekar 398 71 Effect of Sports Participation by The Parent on Physical Fitness of Their Child Mr. Jayashing Naik 402 72 Expected Benefits of the Risk Management to Improve the Performance Rameshwar Swami Physicochemical Analysis of Pond Water of Ranmasle Village, in Solapur District, Maharashtra, India Ashok Kadam, Rajesh Bopalkar, Sameer B. Patil Role of Innovation in women Entrepreneurship and Empowerment: an Empirical Pushpalata Patil & Deepali Patil Research Pushpalata Patil & Deepali Patil 414 75 An Analytical Study of Electronic Payment Systems in India Mr. Somnath Patharkar AP A Paradigm Shifting of Indian Traditional Economy Market to Emerging Mudiraj Narendra Balbhim 425  FET Patil Fahru 31. Traditional Economy Market to Emerging Mudiraj Narendra Balbhim 435 76 A Paradigm Shifting of Indian Traditional Economy Market to Emerging Mudiraj Narendra Balbhim 435 78 चंद्रसेन विराट की गज़लों में सामाजिक चेतना अतिकाली कांबळ, डॉ.सुनील बनसोंड 435 79 ओमप्रकाश वाल्मीकि के काळ्य में दलित विमर्श डॉ. देवीदास बोर्ड 441  80 अोमप्रकाश वाल्मीकि के काळ्य में दलित विमर्श डॉ. देवीदास बोर्ड 441  81 व्यहाराची भाषा व वाद्मायाची भाषा याचे तौलिनक अध्ययन डॉ. बळवंत दामाड 446	61		349
64 Changing Buying Behavior of Indian Consumers Dr. Vishwas Chavan 369 65 Growth of E-Commerce in India Prof. N.B. Kale & Prof. B.K. Nagare 374 66 Effectiveness of Co-Operative Strategies in Mathematics Learning Dr. Bharati Khasnis Dr. Babasaheb Mali 382 67 Challenges in Using Mobile Banking Services Dr. Babasaheb Mali 382 68 Role of Lead Bank in Financing the Small-Scale Industry in Sindhudurg District Mr. Prakash Masurkar Mr. Prakash Masurkar Mr. Prakash Masurkar Prof. Santosh Mengal Problems & Remedies of Rural Entrepreneurship in Konkan Prof. Santosh Mengal 394 70 Biodiversity and Environmental Balance Prof. Anand Bandekar 398 71 Effect of Sports Participation by The Parent on Physical Fitness of Their Child Mr. Jayashing Naik 402 72 Expected Benefits of the Risk Management to Improve the Performance Rameshwar Swami Physicochemical Analysis of Pond Water of Ranmasle Village, in Solapur District, Maharashtra, India Ashok Kadam, Rajesh Bopalkar, Sameer B. Patil Role of Innovation in women Entrepreneurship and Empowerment: an Empirical Research Pushpalata Patil & Deepali Patil Research Pushpalata Patil & Deepali Patil 414 75 An Analytical Study of Electronic Payment Systems in India Mr. Somnath Patharkar 422 76 A Paradigm Shifting of Indian Traditional Economy Market to Emerging Mudiraj Narendra Balbhim Field Amir adial Ashok Madira Ashok Madira Ashok Madira Ashok Madira Ashok Madira Balbhim 57 8 चंद्रसेन विराट की गज़लों में सामाजिक चेतना अतिकाली कांबळ, डॉ. सुनील बनसोंड 435 9 ओमप्रकाश वाल्मीकि के काव्य में दलित विमर्श डॉ. सेवीबास बोर्ड 441 80 उन्हों विभाग 30 80 अंपराधन वाल्मीकि के काव्य में दलित विमर्श डॉ. सेवीबास बोर्ड 441 81 व्यवहाराची भाषा व वाद्याची भाषा वाचे तौलिनक अध्ययन डॉ. बळबंत बामांड 446	62	Librarian's Role in Managing the open Data Mrs. Bhakti Gole	353
65 Growth of E-Commerce in India Prof. N.B. Kale & Prof. B.K. Nagare Effectiveness of Co-Operative Strategies in Mathematics Learning Dr. Bharati Khasnis 379 67 Challenges in Using Mobile Banking Services Dr. Babasaheb Mali 382 68 Role of Lead Bank in Financing the Small-Scale Industry in Sindhudurg District Mr. Prakash Masurkar 236 69 Problems & Remedies of Rural Entrepreneurship in Konkan Prof. Santosh Mengal 2398 70 Biodiversity and Environmental Balance Prof. Anand Bandekar 2398 71 Effect of Sports Participation by The Parent on Physical Fitness of Their Child Mr. Jayashing Naik 2402 72 Expected Benefits of the Risk Management to Improve the Performance Rameshwar Swami 2406 73 District, Maharashtra, India Ashok Kadam, Rajesh Bopalkar, Sameer B. Patil 2410 74 Role of Innovation in women Entrepreneurship and Empowerment: an Empirical 2410 75 An Analytical Study of Electronic Payment Systems in India 2422 76 A Paradigm Shifting of Indian Traditional Economy Market to Emerging 2425 77 A Paradigm Shifting of Indian Traditional Economy Market to Emerging 2425 78 A Paradigm Shifting of Indian Traditional Economy Market to Emerging 2430 78 A Paradigm Shifting of Indian Traditional Economy Market to Emerging 2431 79 An Analytical Study of Electronic Payment Systems in India 2422 78 A Paradigm Shifting of Indian Traditional Economy Market to Emerging 2431 79 An Analytical Study of Electronic Payment Systems in India 2435 79 Alphanara are Alphanara 34. Ananara 35. Ananara 36. Ananara 36. Ananara 37. Ananara 37	63	M Commerce: The Users Perspective Vaibhav Bhalerao	359
66Effectiveness of Co-Operative Strategies in Mathematics Learning Dr. Bharati Khasnis Dr. Bharati Khasnis 38267Challenges in Using Mobile Banking Services Role of Lead Bank in Financing the Small-Scale Industry in Sindhudurg District Mr. Prakash Masurkar38668Role of Lead Bank in Financing the Small-Scale Industry in Sindhudurg District Mr. Prakash Masurkar38669Problems & Remedies of Rural Entrepreneurship in Konkan Prof. Santosh Mengal Prof. Anand Bandekar Prof. Anand Bandekar39470Biodiversity and Environmental Balance Effect of Sports Participation by The Parent on Physical Fitness of Their Child Mr. Jayashing Naik40272Expected Benefits of the Risk Management to Improve the Performance Rameshwar Swami40673Physicochemical Analysis of Pond Water of Ranmasle Village, in Solapur District, Maharashtra, India Ashok Kadam, Rajesh Bopalkar, Sameer B. Patil41074Role of Innovation in women Entrepreneurship and Empowerment: an Empirical ResearchPushpalata Patil & Deepali Patil41475An Analytical Study of Electronic Payment Systems in India Mr. Somnath Patharkar42276A Paradigm Shifting of Indian Traditional Economy Market to Emerging Mudiraj Narendra Balbhim42577वर्तमान समाज में बढ़ते अपराध- एक अध्ययनडॉ. राखी विंग्रा43578चंद्रमेन विराट की गज़लों में सामाजिक चेतना अोमप्रकाश वाल्पीकि के काव्य में दलित विमर्शडॉ. रेबीदास बोर्ड43580उर्ट्र विभागउर्ट्र विभाग44380अध्यत्राचिक के काव्य में दलित विभागअध्यत्राचिक के क्वंत	64	Changing Buying Behavior of Indian Consumers Dr. Vishwas Chavan	369
7 Challenges in Using Mobile Banking Services Dr. Babasaheb Mali 382 Role of Lead Bank in Financing the Small-Scale Industry in Sindhudurg District Mr. Prakash Masurkar 386 Mr. Problems & Remedies of Rural Entrepreneurship in Konkan Prof. Santosh Mengal 394 Problems & Remedies of Rural Entrepreneurship in Konkan Prof. Santosh Mengal 398 Biodiversity and Environmental Balance Prof. Anand Bandekar 398 Effect of Sports Participation by The Parent on Physical Fitness of Their Child Mr. Jayashing Naik 402 Mr. Jayashing Naik 402 Mr. Santosh Mengal 402 Mr. Santosh Mengal 403 Mr. Santosh Mengal 404 Mr. Somath Patharkar Swami 406 Physicochemical Analysis of Pond Water of Ranmasle Village, in Solapur District, Maharashtra, India Ashok Kadam, Rajesh Bopalkar, Sameer B. Patil Research Pushpalata Patil & Deepali Patil 414 Pushpalata Patil & Deepali Patil 414 Pushpalata Patil & Deepali Patil 414 Problematical Study of Electronic Payment Systems in India Mr. Somnath Patharkar 422 Mr. Somnath Patharkar 422 Mr. Somnath Patharkar 425 Mr. Somnath Patharkar 425 Mr. Somnath Patharkar 430 Mr. Somnath Patharkar 430 Mr. Somnath Patharkar 430 Mr. Somnath Patharkar 430 Mr. Somnath Patharkar 441 Mr. Somnath Patharkar 4425 Mr. Somnath Patharkar 4425 Mr. Somnath Patharkar 4430 Mr. Somnath Pathark	65	Growth of E-Commerce in India Prof. N.B. Kale & Prof. B.K. Nagare	374
Role of Lead Bank in Financing the Small-Scale Industry in Sindhudurg District Mr. Prakash Masurkar 386  Problems & Remedies of Rural Entrepreneurship in Konkan Prof. Santosh Mengal 394  Biodiversity and Environmental Balance Prof. Anand Bandekar 398  Effect of Sports Participation by The Parent on Physical Fitness of Their Child Mr. Jayashing Naik 402  Expected Benefits of the Risk Management to Improve the Performance Rameshwar Swami Physicochemical Analysis of Pond Water of Ranmasle Village, in Solapur District, Maharashtra, India Ashok Kadam, Rajesh Bopalkar, Sameer B. Patil Role of Innovation in women Entrepreneurship and Empowerment: an Empirical Research Pushpalata Patil & Deepali Patil 414  An Analytical Study of Electronic Payment Systems in India Mr. Sommath Patharkar 422  A Paradigm Shifting of Indian Traditional Economy Market to Emerging Mudiraj Narendra Balbhim 425  Fiel Patri  Tafun समाज में बढ़ते अपराध- एक अध्ययन डॉ. राखी विंगा 430  Rafun समाज में बढ़ते अपराध- एक अध्ययन डॉ. राखी विंगा 430  Rafun समाज में बढ़ते अपराध- एक अध्ययन डॉ. देवीदास बोर्ड 441  Rafun समाज में बढ़ते अपराध- एक अध्ययन डॉ. देवीदास बोर्ड 441  Rafun समाज में बढ़ते अपराध- एक अध्ययन डॉ. देवीदास बोर्ड 441  Rafun समाज में बढ़ते अपराध- एक अध्ययन डॉ. विंगा 443  Rafun समाज से अध्या अधी समाजिक चेतना अधी समाजिक के तो समाजिक विंगा 443  Rafun समाजिक के काव्य में दलित विमर्श डॉ. देवीदास बोर्ड 441  Rafun समाजिक से समाजिक विंगा 443	66		379
Mr. Prakash Masurkar   394     Problems & Remedies of Rural Entrepreneurship in Konkan   Prof. Santosh Mengal     Prof. Anand Bandekar   398     Biodiversity and Environmental Balance   Prof. Anand Bandekar     Effect of Sports Participation by The Parent on Physical Fitness of Their Child   Mr. Jayashing Naik   402     Mr. Jayashing Naik   402     Expected Benefits of the Risk Management to Improve the Performance   Rameshwar Swami     Rameshwar Swami   Physicochemical Analysis of Pond Water of Ranmasle Village, in Solapur   210     District, Maharashtra, India   Ashok Kadam, Rajesh Bopalkar, Sameer B. Patil   410     Role of Innovation in women Entrepreneurship and Empowerment: an Empirical   Research   Pushpalata Patil & Deepali Patil   414     An Analytical Study of Electronic Payment Systems in India   Mr. Somnath Patharkar   422     An Aradigm Shifting of Indian Traditional Economy Market to Emerging   Mudiraj Narendra Balbhim   425     A Paradigm Shifting of Indian Traditional Economy Market to Emerging   425     A Paradigm Shifting of Indian Traditional Economy Market to Emerging   425     A Paradigm Shifting of Indian Traditional Economy Market to Emerging   425     A Paradigm Shifting of Indian Traditional Economy Market to Emerging   430   425     A Paradigm Shifting of Indian Traditional Economy Market to Emerging   430   435     A Paradigm Shifting of Indian Traditional Economy Market to Emerging   435   435     A Paradigm Shifting of Indian Traditional Economy Market to Emerging   436   435     A Paradigm Shifting of Indian Traditional Economy Market to Emerging   436   437     A Paradigm Shifting of Indian Traditional Economy Market to Emerging   436   437     A Paradigm Shifting of Indian Traditional Economy Market to Emerging   436   437     A Paradigm Shifting of Indian Traditional Economy Market to Emerging   436   437     A Paradigm Shifting of Indian Traditional Economy Market to Emerging   436   437     A Paradigm Shifting of Indian Traditional Economy Market to Emerging   437   430	67	0	382
70 Biodiversity and Environmental Balance Prof. Anand Bandekar 398 71 Effect of Sports Participation by The Parent on Physical Fitness of Their Child Mr. Jayashing Naik 402 72 Expected Benefits of the Risk Management to Improve the Performance Rameshwar Swami 406 73 Physicochemical Analysis of Pond Water of Ranmasle Village, in Solapur District, Maharashtra, India Ashok Kadam, Rajesh Bopalkar, Sameer B. Patil Role of Innovation in women Entrepreneurship and Empowerment: an Empirical Research Pushpalata Patil & Deepali Patil 414 75 An Analytical Study of Electronic Payment Systems in India Mr. Somnath Patharkar A Paradigm Shifting of Indian Traditional Economy Market to Emerging Economy Market to Emerging Mudiraj Narendra Balbhim 425 76 A Paradigm Shifting of Indian Traditional Economy Market to Emerging Economy Market Teconomy Market to Emerging Mudiraj Narendra Balbhim 425 77 वर्तमान समाज में बढ़ते अपराध- एक अध्ययन डाँ. राखी विभाग 430 78 चंद्रसेन विराट की गज़लों में सामाजिक चेतना श्री.भिकाजी कांबळे, डाँ.सुनील बनसोडे 435 79 ओमप्रकाश वाल्मीकि के काव्य में दलित विमर्श डाँ. देवीदास बोर्डे 441 80 उर्द् विभाग 443 80 मराठी विभाग 30 वाह्यायाची भाषा याचे तौलिनक अध्ययन डाँ. बळवंत दाभाडे 446	68	Mr. Prakash Masurkar	386
Fifect of Sports Participation by The Parent on Physical Fitness of Their Child Mr. Jayashing Naik  Expected Benefits of the Risk Management to Improve the Performance Rameshwar Swami  Physicochemical Analysis of Pond Water of Ranmasle Village, in Solapur District, Maharashtra, India Ashok Kadam, Rajesh Bopalkar, Sameer B. Patil  Role of Innovation in women Entrepreneurship and Empowerment: an Empirical Research Pushpalata Patil & Deepali Patil  An Analytical Study of Electronic Payment Systems in India Mr. Somnath Patharkar  A Paradigm Shifting of Indian Traditional Economy Market to Emerging Mudiraj Narendra Balbhim    Fid   Fahro   Mudiraj Narendra Balbhim	69	Prof. Santosh Mengal	
Mr. Jayashing Naik72Expected Benefits of the Risk Management to Improve the Performance Rameshwar Swami40673Physicochemical Analysis of Pond Water of Ranmasle Village, in Solapur District, Maharashtra, India Ashok Kadam, Rajesh Bopalkar, Sameer B. Patil41074Role of Innovation in women Entrepreneurship and Empowerment: an Empirical Research Pushpalata Patil & Deepali Patil41475An Analytical Study of Electronic Payment Systems in India42276A Paradigm Shifting of Indian Traditional Economy Market to Emerging Economy Market42577addring Narendra Balbhim42578चंद्रसेन विराट की गज़लों में सामाजिक चेतनाश्री.भिकाजी कांबळे, डॉ.सुनील बनसोडे43579ओमप्रकाश वाल्मीकि के काव्य में दलित विमर्शडॉ. देवीदास बोर्डे44136उर्दू विभाग80अपराध- एक अध्यानइं. देवीदास बोर्डे44140उर्दू विभाग81व्यवहाराची भाषा व वाद्मयाची भाषा याचे तौलनिक अध्ययनइॉ. बळवंत दाभाडे446	70	Diddiversity and Environmental	398
Physicochemical Analysis of Pond Water of Ranmasle Village, in Solapur District, Maharashtra, India Ashok Kadam, Rajesh Bopalkar, Sameer B. Patil Role of Innovation in women Entrepreneurship and Empowerment: an Empirical Research Pushpalata Patil & Deepali Patil An Analytical Study of Electronic Payment Systems in India Mr. Somnath Patharkar A Paradigm Shifting of Indian Traditional Economy Market to Emerging Economy Market Mudiraj Narendra Balbhim    Role of Innovation in women Entrepreneurship and Empowerment: an Empirical Pushpalata Patil & Deepali Patil A14   Pushpalata Patil & Deepali Patil A14   An Analytical Study of Electronic Payment Systems in India Mr. Somnath Patharkar A Paradigm Shifting of Indian Traditional Economy Market to Emerging Economy Market	71	Mr. Jayashing Naik	402
75 District, Maharashtra, India Ashok Kadam, Rajesh Bopalkar, Sameer B. Patil 76 Role of Innovation in women Entrepreneurship and Empowerment: an Empirical Research Pushpalata Patil & Deepali Patil 75 An Analytical Study of Electronic Payment Systems in India Mr. Somnath Patharkar 76 A Paradigm Shifting of Indian Traditional Economy Market to Emerging Economy Market Mudiraj Narendra Balbhim 77 वर्तमान समाज में बढ़ते अपराध- एक अध्ययन 78 चंद्रसेन विराट की गज़लों में सामाजिक चेतना श्री.भिकाजी कांबळे, डॉ.सुनील बनसोडे 435 79 ओमप्रकाश वाल्मीकि के काव्य में दलित विमर्श डॉ. देवीदास बोर्डे 441 80 उर्दू विभाग 80 अभिप्रताध्या अधि	72	Rameshwar Swami	406
Research       Pushpalata Patil & Deepali Patil       414         75       An Analytical Study of Electronic Payment Systems in India Mr. Somnath Patharkar       422         76       A Paradigm Shifting of Indian Traditional Economy Market to Emerging Economy Market       Mudiraj Narendra Balbhim         77       वर्तमान समाज में बढ़ते अपराध- एक अध्ययन       डॉ. राखी घिंग्रा       430         78       चंद्रसेन विराट की गज़लों में सामाजिक चेतना       श्री.भिकाजी कांबळे, डॉ.सुनील बनसोडे       435         79       ओमप्रकाश वाल्मीकि के काव्य में दलित विमर्श       डॉ. देवीदास बोर्डे       441         36       प्रमाण प्रकाण के काव्य में दलित विमर्श       इं. देवीदास बोर्डे       441         80       मराठी विभाग         443         मराठी विभाग         81       व्यवहाराची भाषा व वादायाची भाषा याचे तौलनिक अध्ययन       डॉ. बळवंत दामाडे       446	73	District, Maharashtra, India Ashok Kadam, Rajesh Bopalkar, Sameer B. Patil	410
Mr. Somnath Patharkar         422         A Paradigm Shifting of Indian Traditional Economy Market to Emerging Economy Market       425         Reconomy Market       Mudiraj Narendra Balbhim       425         77 वर्तमान समाज में बढ़ते अपराध- एक अध्ययन       डॉ. राखी छिंग्रा       430         78 चंद्रसेन विराट की गज़लों में सामाजिक चेतना       श्री.भिकाजी कांबळे, डॉ.सुनील बनसोडे       435         79 ओमप्रकाश वाल्मीकि के काव्य में दलित विमर्श       डॉ. देवीदास बोर्डे       441         उर्दू विभाग         80       अध्यात्र प्रचार्ध प्रचार प्रचार प्रचार्ध प्रचार प	74	Research Pushpalata Patil & Deepali Patil	414
Economy Market       Mudiraj Narendra Balbhim       425         हिंदी विभाग         77 वर्तमान समाज में बढ़ते अपराध- एक अध्ययन       डॉ. राखी खिंग्रा       430         78 चंद्रसेन विराट की गज़लों में सामाजिक चेतना       श्री.भिकाजी कांबळे, डॉ.सुनील बनसोडे       435         79 ओमप्रकाश वाल्मीिक के काव्य में दलित विमर्श       डॉ. देवीदास बोर्डे       441         3र्दू विभाग         80 डॉ. व्यवहाराच्या आषा व वाद्मयाची भाषा याचे तौलनिक अध्ययन       इॉ. बळवंत दाभाडे       443	75	Mr. Somnath Patharkar	
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78       चंद्रसेन विराट की गज़लों में सामाजिक चेतना       श्री.भिकाजी कांबळे, डाॅ.सुनील बनसोडे       435         79       ओमप्रकाश वाल्मीकि के काव्य में दलित विमर्श       डाॅ. देवीदास बोर्डे       441         उर्दू विभाग         80       देवीदास बोर्डे       443         मराठी विभाग         श्री. बळवंत दाभाडे       446			
79       ओमप्रकाश वाल्मीिक के काव्य में दलित विमर्श       डॉ. देवीदास बोर्डे 441         उर्दू विभाग         40         मराठी विभाग         श्यवहाराची भाषा व वाद्मयाची भाषा याचे तौलिनक अध्ययन       डॉ. बळवंत दाभाडे       446	77	वर्तमान समाज में बढ़ते अपराध- एक अध्ययन 💮 डॉ. राखी घिंग्रा	430
उर्दू विभाग  80 ناول"ضدی "ایک تجزیاتی مطالعہ ناول "طلعہ पराठी विभाग  81 व्यवहाराची भाषा व वाद्मयाची भाषा याचे तौलनिक अध्ययन डॉ. बळवंत दाभाडे 446	78	चंद्रसेन विराट की गज़लों में सामाजिक चेतना श्री.भिकाजी कांबळे, डॉ.सुनील बनसोडे	435
उर्दू विभाग  80 ناول"ضدی" ایک تجزیاتی مطالعہ ناول طلعہ पराठी विभाग  443  443  443  246  81 व्यवहाराची भाषा व वादायाची भाषा याचे तौलनिक अध्ययन डॉ. बळवंत दाभाडे 446	79	ओमप्रकाश वाल्मीकि के काव्य में दलित विमर्श डॉ. देवीदास बोर्डे	441
<b>मराठी विभाग</b> 81 व्यवहाराची भाषा व वाद्मयाची भाषा याचे तौलनिक अध्ययन <b>डॉ. बळवंत दाभाडे</b> 446			
81 व्यवहाराची भाषा व वाद्मयाची भाषा याचे तौलनिक अध्ययन डॉ. बळवंत दाभाडे 446	80	ڈاکٹر سیماثاہید ناول"ضدی "ایک تجزیاتی مطالعہ	443
		मराठी विभाग	
82 मुलाखत तंत्र आणि मंत्र डॉ. एस. एस. भैरगुडे 450	81	व्यवहाराची भाषा व वाद्मयाची भाषा याचे तौलनिक अध्ययन डॉ. बळवंत दाभाडे	446
	82	मुलाखत तंत्र आणि मंत्र डॉ. एस. एस. भैरगुडे	450

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# Physicochemical Analysis of Pond Water of Ranmasle Village, in Solapur District, Maharashtra, India

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#### Abstract:

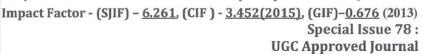
Quality of water is an important criterion for evaluating the suitability of water for irrigation and drinking. This paper deals with the study of physico-chemical parameters of pond water of Ranmasle village and was carried out by collecting sample in July 2018. The results were compared with standards prescribed by WHO and ISI 10500-91. Total 17 parameters were analysed. It was found that the pond water was contaminated and unfit for drinking purpose.

**Keywords:** Pond Water, physicochemical parameters, WHO, ISI 10500-91.

#### **Introduction:**

Ponds are the small aquatic ecosystems and are generally located near human civilization. Due to this reason these ponds are mostly influenced by the human activities which in turn pollute them. Water is universal solvent dissolving a number of substances that it comes in contact with. However water for human consumption and other domestic purposes should be free from disease causing organisms, poisonous substances, excessive amount of minerals and organic matter. The determinant of good growth in water body includes dissolved oxygen, hardness, turbidity, alkalinity, nutrients, temperature, etc. Conversely, other parameters like biological oxygen demand, and chemical oxygen demand indicate pollution level of a given water body. In most water bodies, various chemical parameters occur in low concentrations [1]. Fresh water is essential for agriculture, industry and human existence. Rapid growth of urban areas directly or indirectly affected existence of the pond such as over exploitation of resources and improper waste disposal practice [2].

It is very essential and important to test the water before it is used for drinking, domestic, agricultural or industrial purpose. Water must be tested with different physico-chemical parameters. Selection of parameters for testing of water is solely depends upon for what purpose we going to use that water and what extent we need its quality and purity. Water does content different types of floating, dissolved, suspended and microbiological as well as bacteriological impurities [3]. Some physical test should be performed for testing of its physical appearance such as temperature, color, odour, pH, turbidity, TDS etc, while chemical tests should be perform for its BOD, COD, dissolved oxygen, alkalinity, hardness and other characters. For obtaining more and more quality and purity water, it should be tested for its trace metal, heavy metal contents and organic i.e. pesticide residue. It is obvious that drinking water should pass these entire tests and it should content required amount of mineral level. Only in the developed countries all these criteria's are strictly monitored. Due to very low concentration of heavy metal





and organic pesticide impurities present in water it need highly sophisticated analytical instruments and well trained manpower.

The present study involves the analysis of water quality in terms of physico-chemical parameters of pond water of Ranmasle village in North Solapur Taluka, District Solapur of West Maharashtra region in Maharashtra State. The purpose of this present investigation was to determine the values of the major physiochemical parameters of pond water of Ranmasle village and it's environ. Furthermore, to determine if there is any build up of toxic substances which could lead to bio-accumulation and magnification leading to health implications.

#### Material And Methods:

#### Study area:

Ranmasle is a Village in Solapur North Taluka in Solapur District of Maharashtra State, India. The latitude 17.66577 and longitude 75.9157875 are the geo coordinate of the Ranmasale. Ranmasale belongs to West Maharashtra region. It is located 28 Km towards North from District head quarter Solapur. The people are using open well water, tube well water as well as pond water for their daily need. The literature survey reveals that no water quality management studies are made in this region so far. Hence the present study was planned and undertaken.

#### Preparation of water samples:

Water samples for the estimation of physicochemical parameters were collected in rainy season mainly in July 2018. One liter acid leached polythene bottle were used for water sampling. Sample collection was done during morning hours between 7.00 am to 10.00 am and brought to laboratory for further analysis. The sample was kept in refrigerator maintained at 4°C.

#### Physicochemical analysis:

Parameters like colour, temperature, light penetration, pH, were estimated on the spot while samples for dissolved oxygen. DO was fixed on spot and other parameters were analyzed in the laboratory as per standard methods prescribed by Trivedy and Goel (1986), APHA (1992), Kodarkar *et al* (1998). The results of this study are presented in Table 1.

#### **Results And Discussion:**

The average results of the physicochemical parameters for pond water sample are presented in Table 1.

Table 1: Physicochemical Characteristics of Pond Water of Ranmasle Village

Sr. No.	Parameter	Reading	WHO (1973)	ISI 10500-91
1	Colour	Light Green	=1	-
2	Light Penetration (cm)	233.22		-
3	pH	7.4	7-8.5	6.5-8.5
4	EC	2441	1400	-
5	TDS	1480	1000	500
6	Turbidity	0.4	5.0	10
7	DO	2.6	-	5.0
8	TA	647.4	120	200
9	TH	502	500	300
10	Ca <sup>2+</sup>	27.25	100	75
11	Mg <sup>2+</sup>	108.7	150	30



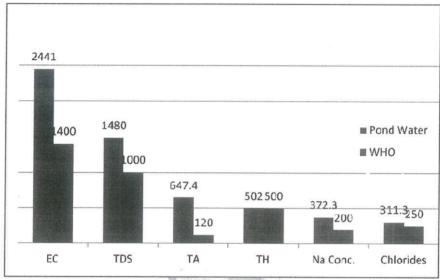
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12	Na <sup>+</sup>	372.3	200	200
13	K <sup>+</sup>	2.011	-	ş <del>=</del> .
14	Cl <sup>-</sup>	311.3	250	250
15	NO <sup>3-</sup>	1.271	5	45
16	SO <sub>4</sub> <sup>2-</sup>	89.89	250	200
17	PO <sub>4</sub> <sup>3-</sup>	0.233	-	-

All parameters are in mg/L except pH, EC and Turbidity. EC in micromho /cm, Turbidity in NTU



Graphical Comparison of Physicochemical parameters of Pond water and Standards of WHO

Electrical conductivity is a measure of water capacity to convey electric current. It signifies the amount of total dissolved salts [6]. EC values was 2441 micromhos/cm. High EC values was observed indicating the presence of high amount of dissolved inorganic substances in ionized form. Total dissolved solids indicate the salinity behavior of pond water. Water containing more than 500 mg/L of TDS is not considered desirable for drinking water supplies, but in unavoidable cases 1500 mg/L is also allowed [7]. TDS values was 1480 mg/L showed higher TDS values than the prescribed limit given by ISI 10500-91. In most waters, turbidity is due to colloidal and extremely fine dispersions. The turbidity values was 0.4 NTU and found within the limits prescribed by ISI 10500-91.

Dissolved oxygen is important parameter in water quality assessment and reflects the physical and biological processes prevailing in the water. The DO values indicate the degree of pollution in water bodies. DO value was 2.6 indicating contamination by organic matter. Alkalinity of water is its capacity to neutralize a strong acid and it is normally due to the presence of bicarbonate, carbonate and hydroxide compound of calcium, sodium and potassium. Total alkalinity value for sample was found to be greater than the value prescribed by WHO.

Hardness is the property of water that prevents the lather formation with soap and increases the boiling points of water [6]. Hardness of water mainly depends upon the amount of calcium or magnesium salts or both. The hardness value indicated it is within the limits prescribed by WHO. Calcium and Magnesium are directly related to hardness. Calcium concentration was 27.25 mg/L and found below permissible limit. Magnesium content in the investigated water sample was 108.7 mg/L which were found within WHO limit.



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Sodium concentrations was 372.3 mg/L and showed higher than the prescribed limit. The major source of potassium in natural fresh water is weathering of rocks but the quantities increase in the polluted water due to disposal of waste water [4]. Potassium content in the water sample was 2.011 mg/L. The chloride concentration serves as an indicator of pollution by sewage. People accustomed to higher chloride in water are subjected to laxative effects[6] In the present analysis, chloride concentration was found 311.3 mg/L.

Pond water contains nitrate due to leaching of nitrate with the percolating water. Groundwater can also be contaminated by sewage and other wastes rich in nitrates. The nitrate content in the study area 1.271 mg/L and found within the prescribed limit. Sulphate occurs naturally in water as a result of leaching from gypsum and other common minerals [5]. Discharge of industrial wastes and domestic sewage tends to increase its concentration. The sulphate concentration varied was 89.89 mg/L and found within the prescribed limit. Phosphate may occur in pond water as a result of domestic sewage, detergents, agricultural effluents with fertilizers and industrial waste water [8]. The phosphate content in the study area was found 0.233 mg/L.

#### **Conclusion:**

High EC and TDS values were observed indicating the presence of high amount of dissolved inorganic substances in ionized form. Electrical conductivity(EC), Total dissolved solids (TDS) and Alkalinity values were found to be greater than the value prescribed by WHO. The results indicate that water of Ranmasle pond is polluted and is not suitable for drinking purposes.

#### References:

- 1. Raja R E, Lydia Sharmila, J.Princy Merlin, Chritopher G, *Indian J Environ Prot.*, 2002, 22(2), 137.
- 2. Patil P R, Badgujar S R. and Warke A M, *Oriental J Chem.*, 2001, 17 (2), 283. b) Akpofure rimrukeh, *Journal of environmental protection.*, 2013; 4: 920-928. c) Thilaga, A., Subhashini, S.Sobhana and K.L.Kumar, *Nat.Env. & Poll. Tech.*, 2005; 4(2): 299-302.
- **3.** American Public Health Association: Standard Methods for the examination of water and waste water, 17th Ed., Washington, DC. **1989.**
- **4.** Trivedy R K and Goel P K Chemical and Biological methods for water pollution studies Environmental Publication, Karad. **1986**.
- **5.** Manivaskam N, Physicochemical examination of water sewage and industrial effluent, 5th Ed. Pragati Prakashan Meerut., **2005**.
- 6. Sudhir Dahiya and Amarjeet Kaur, J Environ Poll., 1999, 6 (4), 281.
- 7. Shriniyasa Rao B and Venkateswaralu P, Indian J Environ Prot., 2000, 20 (3), 161.
- 8. Adak M D and Purohit K M, Poll Res., 2001, 20(2), 227.

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