

## CONTENTS

Chapter No.	Title	Page No.
	<b>Introduction</b>	<b>1</b>
	<b>Review of Literature</b>	<b>36</b>
<b>1</b>	<b>Preliminaries</b>	<b>49</b>
<b>2</b>	<b>J, J* and J**-Closed Sets in Topological Spaces</b>	<b>63</b>
	2.1. Introduction	63
	2.2. $\eta^*$ -Open Sets	63
	2.3. J-Closed Sets in Topological Spaces	68
	2.4. J*-Closed Sets in Topological Spaces	83
	2.5. J**-Closed Sets in Topological Spaces	95
<b>3</b>	<b>Various Concepts Using J-Closed Sets</b>	<b>107</b>
	3.1. Introduction	107
	3.2. Closure Operator	107
	3.3. J-Neighbourhood	109
	3.4. J-Derived Set	111
	3.5. J-Interior Operator	113
	3.6. J-Saturated Set	116
	3.7. J-Frontier	116
	3.8. J-Border	118
	3.9. J-Exterior	119
<b>4</b>	<b>J-Separation Axioms in Topological Spaces</b>	<b>122</b>
	4.1. Introduction	122

<b>Chapter No.</b>	<b>Title</b>	<b>Page No.</b>
	4.2. J-Separation Axioms	122
	4.3. JT $\delta$ -space	123
	4.4. JTg-space	129
	4.5. JTC-space	131
	4.6. JT $\delta$ g*-space	135
	4.7. JT $\delta$ g-space	138
	4.8. g $\delta$ TJ-space	142
<b>5</b>	<b>J-Continuous Functions in Topological Spaces</b>	<b>146</b>
	5.1. Introduction	146
	5.2. J-Continuous Functions	146
	5.3. Quasi J-Continuous Functions	155
	5.4. Totally J-Continuous Function and Strongly J-Continuous Functions	157
	5.5. Quasi Totally J-Continuous Functions	159
	5.6. Contra J-Continuous Functions	161
<b>6</b>	<b>J-Irresolute Functions in Topological Spaces</b>	<b>165</b>
	6.1. Introduction	165
	6.2. J-Irresolute Functions	165
	6.3. Contra J-Irresolute Functions	174
<b>7</b>	<b>J-Quotient Maps and J-Homeomorphisms in Topological Spaces</b>	<b>179</b>
	7.1. Introduction	179
	7.2. J-Closed Functions	179
	7.3. Properties of J-Closed Functions	185
	7.4. J-Open Functions	186
	7.5. J-Quotient Maps	187
	7.6. Strong Form of J-Quotient Maps	189
	7.7. J-Homeomorphisms	196

<b>Chapter No.</b>	<b>Title</b>	<b>Page No.</b>
<b>8</b>	<b>Soft J-Closed, Soft J*-Closed and Soft J**-Closed Sets in Soft Topological Spaces</b>	<b>205</b>
	8.1. Introduction	205
	8.2. Soft Regular*-Open sets	205
	8.3. Soft Regular*-Closed sets	210
	8.4. Soft $\eta^*$ -Open sets	213
	8.5. Soft $\eta^*$ -Closed Sets	216
	8.6. Soft J-Closed	218
	8.7. Soft J*-Closed Sets	221
	8.8. Soft J**-Closed	224
	<b>Summary and Conclusion</b>	<b>228</b>
	<b>References</b>	<b>230</b>
	<b>Appendices</b>	<b>238</b>
	<b>Publications</b>	<b>248</b>