

## List of Tables

<b>Table No.</b>	<b>Title</b>	<b>Page No.</b>
Table 1 1	Runyon's classification of atypical mycobacteria	5
Table 1 2	Non-Tuberculous Mycobacteria (NTM) recovered from humans	6
Table 1 3	Bacilli-host interactions in TB infection	12
Table 1 4	Dissemination of TB outside lungs with characteristic patterns	15
Table 1 5	Tuberculin skin test results	17
Table 1 6	Commonly used TB drugs and their targets	28
Table 2 1	Mechanism based classification of novel anti-TB agents	38
Table 3 1	pK <sub>a</sub> values of substituted pyrimidines	102
Table 3 2	Fragments of Principal Synthesis of pyrimidine	111
Table 4 1	Antimicrobial activity of 5-carbethoxy-4-ethanolamino-6-(substituted amino)pyrimidines:	152
Table 4 2	Antimicrobial activity of 5-carbethoxy-4-hydrazino-6-(substituted amino)pyrimidines	153
Table 4 3	Antimicrobial activity of 5-carbethoxy-4-ethanolamino-2-phenyl-6-(substituted amino)pyrimidines	154
Table 4 4	Antimicrobial activity of 5-carbethoxy-4-hydrazino-2-phenyl-6-(substituted amino)pyrimidines	155
Table 4 5	Antimicrobial activity of 8-carbethoxy-7-(substituted amino)-2,3-dihydroimidazo[1,2-c]pyrimidines	156
Table 4 6	Antimicrobial activity of 8-carbethoxy-5-phenyl-7-(substituted amino)-2,3-dihydroimidazo[1,2-c]pyrimidines	157
Table 4 7	Antimycobactenal activity of 8-carbethoxy-7-(substituted amino)-2,3-dihydroimidazo[1,2-c]pyrimidines	159
Table 4 8	Antimycobactenal activity of 8-carbethoxy-5-phenyl-7-(substituted amino)-2,3-dihydroimidazo[1,2-c]pyrimidines	160
Table 4 9	Antifungal activity of 5-carbethoxy-4-(substituted amino)-2-unsubstituted/ substituted-6-(substituted amino)pyrimidines	162
Table 4 10	Antifungal activity of 5-carbethoxy-4-(substituted amino)-2-unsubstituted/ substituted-6-(substituted amino)pyrimidines	163
Table 4 11	Antifungal activity of 8-carbethoxy-5-substituted/unsubstituted-7-(substituted amino)-2,3-dihydroimidazo[1,2-c]pyrimidines	164

Table 4 12	Physical data of 2-cyano-3-(substituted amino)-3-methylthioacrylate	165
Table 4.13	Physical data of N-[2-carbethoxy-2-cyano-1-(substituted amino)vinyl]formamidines	166
Table 4 14	Physical data of N-[2-carbethoxy-2-cyano-1-(substituted amino)vinyl]benzamidines	167
Table 4 15	Physical data of 5-carbethoxy-4-chloro-6-(substituted amino)pyrimidines	168
Table 4 16	Physical data of 5-carbethoxy-4-chloro-2-phenyl-6-(substituted amino)pyrimidines	169
Table 4 17	Physical data of 5-carbethoxy-4-ethanolamino-6-(substituted amino) pyrimidines	170
Table 4 18	Physical data of 5-carbethoxy-4-ethanolamino-2-phenyl-6-(substituted amino)pyrimidines	171
Table 4.19	Physical Data of 5-carbethoxy-4-hydrazino-6-(substituted amino) pyrimidines	172
Table 4 20	Physical Data of 5-carbethoxy-4-hydrazino-2-phenyl-6-(substituted amino)pyrimidines	173
Table 4 21	Physical Data of 8-carbethoxy-7-(substituted amino)-2,3-dihydroimidazo[1,2-c]-pyrimidines	174
Table 4.22	Physical Data of 8-carbethoxy-5-phenyl-7-(substituted amino)-2,3-dihydroimidazo[1,2-c]pyrimidines.	175
Table 5 1	Molecular Descriptors used in QSAR	236
Table 5.2	Defining Dimensions in QSAR	239
Table 5 3	Types of Biological Data Utilized in QSAR Analysis	241
Table 5 4	2D QSAR methods	244
Table 5 5	Antimycobacterial activity of imidazo[1,2-c]pyrimidines	247
Table 5 6	Molecular descriptors calculated for QSAR study	248
Table 5 7	Values of molecular descriptors used in MLR analysis	249
Table 5 8	QSAR Equations for the antimycobacterial activity of imidazo[1,2-c]pyrimidines	250
Table 5 9	Observed and predicted antimycobacterial activity of substituted imidazo[1,2-c]pyrimidines using the best MLR models	252