

5-NN													
k_1^{train}	n_{test}	PA	PA_1	PA_2	PV_1	PV_2	AUC	PA	PA_1	PA_2	PV_1	PV_2	AUC
0.1	20	0.5	0.05	0.95	NA	0.9	0.5	0.5	0.05	0.95	NA	0.9	0.5
	500	(0.046)	(0.068)	(0.069)	(NA)	(0.009)	(0.162)	(0.046)	(0.068)	(0.069)	(NA)	(0.009)	(0.184)
0.2	20	0.5	0.05	0.95	0.11	0.9	0.5	0.5	0.05	0.95	0.11	0.9	0.5
	500	(0.009)	(0.019)	(0.018)	(0.046)	(0.002)	(0.033)	(0.009)	(0.019)	(0.018)	(0.046)	(0.002)	(0.038)
0.3	20	0.5	0.15	0.84	0.32	0.8	0.5	0.5	0.15	0.84	0.32	0.8	0.5
	500	(0.084)	(0.118)	(0.12)	(0.335)	(0.035)	(0.144)	(0.084)	(0.118)	(0.12)	(0.335)	(0.035)	(0.149)
0.4	20	0.5	0.16	0.84	0.2	0.8	0.5	0.5	0.16	0.84	0.2	0.8	0.5
	500	(0.016)	(0.037)	(0.038)	(0.035)	(0.006)	(0.028)	(0.016)	(0.037)	(0.038)	(0.035)	(0.006)	(0.03)
0.5	20	0.5	0.27	0.73	0.34	0.7	0.5	0.5	0.27	0.73	0.34	0.7	0.5
	500	(0.102)	(0.153)	(0.148)	(0.222)	(0.064)	(0.129)	(0.102)	(0.153)	(0.148)	(0.222)	(0.064)	(0.138)
0.6	20	0.5	0.27	0.73	0.3	0.7	0.5	0.5	0.27	0.73	0.3	0.7	0.5
	500	(0.019)	(0.048)	(0.049)	(0.031)	(0.011)	(0.026)	(0.019)	(0.048)	(0.049)	(0.031)	(0.011)	(0.026)
0.7	20	0.5	0.38	0.62	0.41	0.6	0.5	0.5	0.38	0.62	0.41	0.6	0.5
	500	(0.109)	(0.162)	(0.158)	(0.156)	(0.093)	(0.12)	(0.109)	(0.162)	(0.158)	(0.156)	(0.093)	(0.123)
0.8	20	0.5	0.38	0.61	0.4	0.6	0.5	0.5	0.38	0.61	0.4	0.6	0.5
	500	(0.021)	(0.053)	(0.055)	(0.027)	(0.017)	(0.025)	(0.021)	(0.053)	(0.055)	(0.027)	(0.017)	(0.025)
0.9	20	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
	500	(0.116)	(0.164)	(0.17)	(0.127)	(0.126)	(0.125)	(0.116)	(0.164)	(0.17)	(0.127)	(0.126)	(0.126)
1.0	20	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
	500	(0.023)	(0.056)	(0.057)	(0.023)	(0.023)	(0.024)	(0.023)	(0.056)	(0.057)	(0.023)	(0.023)	(0.025)
RF													
k_1^{train}	n_{test}	PA	PA_1	PA_2	PV_1	PV_2	AUC	PA	PA_1	PA_2	PV_1	PV_2	AUC
0.1	20	0.5	0.05	0.95	NA	0.9	0.49	0.5	0.05	0.95	NA	0.9	0.49
	500	(0.046)	(0.068)	(0.069)	(NA)	(0.009)	(0.222)	(0.046)	(0.068)	(0.069)	(NA)	(0.009)	(0.217)
0.2	20	0.5	0.05	0.95	0.11	0.9	0.5	0.5	0.05	0.95	0.11	0.9	0.5
	500	(0.009)	(0.019)	(0.018)	(0.046)	(0.002)	(0.042)	(0.009)	(0.019)	(0.018)	(0.046)	(0.002)	(0.042)
0.3	20	0.5	0.15	0.84	0.32	0.8	0.49	0.5	0.15	0.84	0.32	0.8	0.49
	500	(0.084)	(0.118)	(0.12)	(0.335)	(0.035)	(0.166)	(0.084)	(0.118)	(0.12)	(0.335)	(0.035)	(0.163)
0.4	20	0.5	0.16	0.84	0.2	0.8	0.5	0.5	0.16	0.84	0.2	0.8	0.5
	500	(0.016)	(0.037)	(0.038)	(0.035)	(0.006)	(0.033)	(0.016)	(0.037)	(0.038)	(0.035)	(0.006)	(0.033)
0.5	20	0.5	0.27	0.73	0.34	0.7	0.5	0.5	0.27	0.73	0.34	0.7	0.5
	500	(0.102)	(0.153)	(0.148)	(0.222)	(0.064)	(0.141)	(0.102)	(0.153)	(0.148)	(0.222)	(0.064)	(0.137)
0.6	20	0.5	0.27	0.73	0.3	0.7	0.5	0.5	0.27	0.73	0.3	0.7	0.5
	500	(0.019)	(0.048)	(0.049)	(0.031)	(0.011)	(0.029)	(0.019)	(0.048)	(0.049)	(0.031)	(0.011)	(0.028)
0.7	20	0.5	0.38	0.62	0.41	0.6	0.51	0.5	0.38	0.62	0.41	0.6	0.5
	500	(0.109)	(0.162)	(0.158)	(0.156)	(0.093)	(0.135)	(0.109)	(0.162)	(0.158)	(0.156)	(0.093)	(0.134)
0.8	20	0.5	0.38	0.61	0.4	0.6	0.5	0.5	0.38	0.61	0.4	0.6	0.5
	500	(0.021)	(0.053)	(0.055)	(0.027)	(0.017)	(0.026)	(0.021)	(0.053)	(0.055)	(0.027)	(0.017)	(0.026)
0.9	20	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
	500	(0.116)	(0.164)	(0.17)	(0.127)	(0.126)	(0.132)	(0.116)	(0.164)	(0.17)	(0.127)	(0.126)	(0.135)
1.0	20	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
	500	(0.023)	(0.056)	(0.057)	(0.023)	(0.023)	(0.027)	(0.023)	(0.056)	(0.057)	(0.023)	(0.023)	(0.026)
DQDA													
k_1^{train}	n_{test}	PA	PA_1	PA_2	PV_1	PV_2	AUC	PA	PA_1	PA_2	PV_1	PV_2	AUC
0.1	20	0.5	0.05	0.95	NA	0.9	0.49	0.5	0.05	0.95	NA	0.9	0.49
	500	(0.046)	(0.068)	(0.069)	(NA)	(0.009)	(0.222)	(0.046)	(0.068)	(0.069)	(NA)	(0.009)	(0.223)
0.2	20	0.5	0.05	0.95	0.11	0.9	0.5	0.5	0.05	0.95	0.11	0.9	0.5
	500	(0.009)	(0.019)	(0.018)	(0.046)	(0.002)	(0.042)	(0.009)	(0.019)	(0.018)	(0.046)	(0.002)	(0.042)
0.3	20	0.5	0.15	0.84	0.32	0.8	0.49	0.5	0.15	0.84	0.32	0.8	0.49
	500	(0.084)	(0.118)	(0.12)	(0.335)	(0.035)	(0.166)	(0.084)	(0.118)	(0.12)	(0.335)	(0.035)	(0.166)
0.4	20	0.5	0.16	0.84	0.2	0.8	0.5	0.5	0.16	0.84	0.2	0.8	0.5
	500	(0.016)	(0.037)	(0.038)	(0.035)	(0.006)	(0.033)	(0.016)	(0.037)	(0.038)	(0.035)	(0.006)	(0.033)
0.5	20	0.5	0.27	0.73	0.34	0.7	0.5	0.5	0.27	0.73	0.34	0.7	0.5
	500	(0.102)	(0.153)	(0.148)	(0.222)	(0.064)	(0.141)	(0.102)	(0.153)	(0.148)	(0.222)	(0.064)	(0.141)
0.6	20	0.5	0.27	0.73	0.3	0.7	0.5	0.5	0.27	0.73	0.3	0.7	0.5
	500	(0.019)	(0.048)	(0.049)	(0.031)	(0.011)	(0.029)	(0.019)	(0.048)	(0.049)	(0.031)	(0.011)	(0.029)
0.7	20	0.5	0.38	0.62	0.41	0.6	0.51	0.5	0.38	0.62	0.41	0.6	0.5
	500	(0.109)	(0.162)	(0.158)	(0.156)	(0.093)	(0.135)	(0.109)	(0.162)	(0.158)	(0.156)	(0.093)	(0.135)
0.8	20	0.5	0.38	0.61	0.4	0.6	0.5	0.5	0.38	0.61	0.4	0.6	0.5
	500	(0.021)	(0.053)	(0.055)	(0.027)	(0.017)	(0.026)	(0.021)	(0.053)	(0.055)	(0.027)	(0.017)	(0.026)
0.9	20	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
	500	(0.116)	(0.164)	(0.17)	(0.127)	(0.126)	(0.132)	(0.116)	(0.164)	(0.17)	(0.127)	(0.126)	(0.132)
1.0	20	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
	500	(0.023)	(0.056)	(0.057)	(0.023)	(0.023)	(0.027)	(0.023)	(0.056)	(0.057)	(0.023)	(0.023)	(0.027)
PAM													
k_1^{train}	n_{test}	PA	PA_1	PA_2	PV_1	PV_2	AUC	PA	PA_1	PA_2	PV_1	PV_2	AUC
0.1	20	0.5	0.05	0.95	NA	0.9	0.49	0.5	0.05	0.95	NA	0.9	0.49
	500	(0.046)	(0.068)	(0.069)	(NA)	(0.009)	(0.223)	(0.046)	(0.068)	(0.069)	(NA)	(0.009)	(0.223)
0.2	20	0.5	0.05	0.95	0.11	0.9	0.5	0.5	0.05	0.95	0.11	0.9	0.5
	500	(0.009)	(0.019)	(0.018)	(0.046)	(0.002)	(0.042)	(0.009)	(0.019)	(0.018)	(0.046)	(0.002)	(0.042)
0.3	20	0.5	0.15	0.84	0.32	0.8	0.49	0.5	0.15	0.84	0.32	0.8	0.49
	500	(0.084)	(0.118)	(0.12)	(0.335)	(0.035)	(0.163)	(0.084)	(0.118)	(0.12)	(0.335)	(0.035)	(0.163)
0.4	20	0.5	0.16	0.84	0.2	0.8	0.5	0.5	0.16	0.84	0.2	0.8	0.5
	500	(0.016)	(0.037)	(0.038)	(0.035)	(0.006)	(0.032)	(0.016)	(0.037)	(0.038)	(0.035)	(0.006)	(0.032)
0.5	20	0.5	0.27	0.73	0.34	0.7	0.5	0.5	0.27	0.73	0.34	0.7	0.5
	500	(0.102)	(0.153)	(0.148)	(0.222)	(0.064)	(0.141)	(0.102)	(0.153)	(0.148)	(0.222)	(0.064)	(0.141)
0.6	20	0.5	0.27	0.73	0.3	0.7	0.5	0.5	0.27	0.73	0.3	0.7	0.5
	500	(0.019)	(0.048)	(0.049)	(0.031)	(0.011)	(0.029)	(0.019)	(0.048)	(0.049)	(0.031)	(0.011)	(0.029)
0.7	20	0.5	0.38	0.62	0.41	0.6	0.5	0.5	0.38	0.62	0.41	0.6	0.5
	500	(0.109)	(0.162)	(0.158)	(0.156)	(0.093)	(0.135)	(0.109)	(0.162)	(0.158)	(0.156)	(0.093)	(0.135)
0.8	20	0.5	0.38	0.61	0.4	0.6	0.5	0.5	0.38	0.61	0.4	0.6	0.5
	500	(0.021)	(0.053)	(0.055)	(0.027)	(0.017)	(0.026)	(0.021)	(0.053)	(0.055)	(0.027)	(0.017)	(0.026)
0.9	20	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
	500	(0.116)	(0.164)	(0.17)	(0.127)	(0.126)	(0.133)	(0.116)	(0.164)	(0.17)	(0.127)	(0.126)	(0.133)
1.0	20	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
	500	(0.023)	(0.056)	(0.057)	(0.023)	(0.023)	(0.027)	(0.023)	(0.056)	(0.057)	(0.023)	(0.023)	(0.027)
PLR													
k_1^{train}	n_{test}	PA	PA_1	PA_2	PV_1	PV_2	AUC	PA	PA_1	PA_2	PV_1	PV_2	AUC
0.1	20	0.5	0.05	0.95	NA	0.9	0.5	0.5	0.05	0.95	NA	0.9	0.5
	500	(0.046)	(0.068)	(0.069)	(NA)	(0.009)	(0.226)	(0.046)	(0.068)	(0.069)	(NA)	(0.009)	(0.226)
0.2	20	0.5	0.05	0.95	0.11	0.9	0.5	0.5	0.05	0.95	0.11	0.9	0.5
	500	(0.009)	(0.019)	(0.018)	(0.046)	(0.002)	(0.043)	(0.009)	(0.019)	(0.018)	(0.046)	(0.002)	(0.043)
0.3	20	0.5	0.15	0.84	0.32	0.8	0.49	0.5	0.15	0.84	0.32	0.8	0.49
	500	(0.084)	(0.118)	(0.12)	(0.335)	(0.035)	(0.162)	(0.084)	(0.118)	(0.12)	(0.335)	(0.035)	(0.162)
0.4	20	0.5	0.16	0.84	0.2	0.8	0.5	0.5	0.16	0.84	0.2	0.8	0.5
	500	(0.016)	(0.037)	(0.038)	(0.035)	(0.006)	(0.032)	(0.016)	(0.037)	(0.038)	(0.035)	(0.006)	(0.032)
0.5	20	0.5	0.27	0.73	0.34	0.7	0.5	0.5	0.27	0.73	0.34	0.7	0.5
	500	(0.102)	(0.153)	(0.148)	(0.222)	(0.064)	(0.141)	(0.102)	(0.153)	(0.148)	(0.222)	(0.064)	(0.141)
0.6	20	0.5	0.27	0.73	0.3	0.7	0.5	0.5	0.27	0.73	0.3	0.7	0.5
	500	(0.019)	(0.048)	(0.049)	(0.031)	(0.011)	(0.029)	(					

Table 1: Predictive accuracy (PA), class 1 PA (PA_1), class 2 PA (PA_2), positive and negative predictive value (PV_1 , PV_2) for different proportions of class 1 samples in the training set (k_1^{train} , $n_{train} = 80$). Test set contained 20 or 500 samples (n_{test}) and proportion of class 1 samples was the same as in the training set. 40 variables were simulated from $N(0, 1)$ distribution for both classes and all were used for derivation of classification rule.