Dataset	GNB (1)	OSB (2)	OKNORAU (3)	TBAC (4)	OTBAC (5)	TBAW (6)	OTBAW (7)
glass-0-1-6-vs-2	0.565 ± 0.111	0.573 ± 0.119	0.598 ± 0.141	0.715 ± 0.115	0.716 ± 0.116	0.602 ± 0.083	0.601 ± 0.083
ecoli-0-3-4-7-vs-5-6	0.778 ± 0.080	0.837 ± 0.083	0.897 ± 0.075	0.885 ± 0.078	0.885 ± 0.078	0.818 ± 0.087	$0.776 \stackrel{1}{\pm} 0.094$
shuttle- $c2$ - vs - $c4$	0.988 ± 0.022	0.999 ± 0.005	0.999 ± 0.005	0.845 ± 0.222	0.845 ± 0.222	0.836 ± 0.225	0.845 ± 0.217
glass-0-1-4-6-vs-2	0.579 ± 0.128	0.582 ± 0.129	0.610 ± 0.154	0.727 ± 0.104	0.727 ± 0.103	0.640 ± 0.073	0.635 ± 0.072
yeast-1-2-8-9- vs -7	0.540 ± 0.011	0.541 ± 0.012	0.597 ± 0.048	0.683 ± 0.087	0.683 ± 0.086	0.572 ± 0.054	0.579 ± 0.053
ecoli-0-1-4-6-vs-5	0.847 ± 0.098	0.891 ± 0.088	0.902 ± 0.087	0.899 ± 0.079	0.902 ± 0.076	0.858 ± 0.076	0.834 ± 0.093
$glass\hbox{-} 0\hbox{-} 1\hbox{-} 6\hbox{-} vs\hbox{-} 5$	0.956 ± 0.109	0.912 ± 0.144	0.888 ± 0.151	0.861 ± 0.151	0.861 ± 0.151	$0.860 \stackrel{7}{\pm} 0.150$	0.860 ± 0.150
yeast-2-vs-4	0.608 ± 0.128	0.591 ± 0.122	0.852 ± 0.098	0.855 ± 0.071	0.856 ± 0.070	0.617 ± 0.104	0.653 ± 0.138
glass-0-6-vs-5	0.945 ± 0.140	0.925 ± 0.149	0.905 ± 0.156	0.840 ± 0.178	0.840 ± 0.178	0.858 ± 0.173	0.858 ± 0.173
ecoli-0-3-4-6-vs-5	$4,5,6,7 \\ 0.755 \pm 0.102$	0.827 ± 0.099	0.899 ± 0.104	0.893 ± 0.087	0.892 ± 0.086	0.770 ± 0.123	0.757 ± 0.119
y east - 0 - 3 - 5 - 9 - v s - 7 - 8	0.550 ± 0.018	0.539 ± 0.030	0.708 ± 0.073	0.654 ± 0.066	0.668 ± 0.066	0.561 ± 0.034	0.562 ± 0.043
glass- 0 - 1 - 5 - vs - 2	0.555 ± 0.134	0.511 ± 0.115	0.609 ± 0.155	0.705 ± 0.115	0.703 ± 0.116	0.557 ± 0.066	0.550 ± 0.066
ecoli-0-6-7-vs-5	0.813 ± 0.124	0.838 ± 0.103	0.878 ± 0.096	0.869 ± 0.102	0.861 ± 0.101	0.803 ± 0.085	0.787 ± 0.099
ecoli-0-2-3-4-vs-5	$0.780 \stackrel{7}{\pm} 0.098$	0.846 ± 0.094	0.902 ± 0.084	0.903 ± 0.077	0.901 ± 0.076	$0.803 \stackrel{7}{\pm} 0.090$	0.784 ± 0.103
ecoli4	0.886 ± 0.083	0.896 ± 0.065	0.933 ± 0.066	0.934 ± 0.081	0.936 ± 0.081	0.852 ± 0.092	0.828 ± 0.102
yeast5	0.825 ± 0.024	0.801 ± 0.029	0.846 ± 0.023	0.972 ± 0.024	0.972 ± 0.024	0.915 ± 0.091	0.909 ± 0.107
ecoli-0-4-6-vs-5	0.851 ± 0.114	0.888 ± 0.102	0.901 ± 0.096	0.901 ± 0.082	0.902 ± 0.082	0.847 ± 0.099	0.842 ± 0.099
led7digit-0-2-4-5-6-7-8-9-vs-1	0.853 ± 0.073	0.871 ± 0.065	0.876 ± 0.067	0.654 ± 0.091	0.654 ± 0.091	0.851 ± 0.064	0.837 ± 0.062
ecoli-0-1-vs-5	0.800 ± 0.143	0.853 ± 0.126	$\begin{array}{c} 2,4,5,6,7 \\ 0.905 \pm 0.082 \end{array}$	0.900 ± 0.075	0.903 ± 0.072	0.897 ± 0.083	0.885 ± 0.083
ecoli-0-2-6-7-vs-3-5	0.586 ± 0.145	0.640 ± 0.156	0.722 ± 0.130	0.832 ± 0.102	0.824 ± 0.104	0.755 ± 0.114	0.741 ± 0.114
ecoli-0-1-4-7-vs-2-3-5-6	0.651 ± 0.090	0.668 ± 0.121	0.783 ± 0.140	0.828 ± 0.101	0.856 ± 0.091	0.826 ± 0.097	0.843 ± 0.079
shuttle-c0-vs-c4	0.990 ± 0.012	0.989 ± 0.013	0.989 ± 0.013	0.993 ± 0.009	0.993 ± 0.009	0.993 ± 0.009	0.993 ± 0.009
ecoli-0-6-7-vs-3-5	0.587 ± 0.158	0.633 ± 0.171	0.746 ± 0.132	0.824 ± 0.102	0.822 ± 0.107	0.768 ± 0.105	0.754 ± 0.114
vowel0	0.915 ± 0.037	0.903 ± 0.024	0.926 ± 0.028	0.875 ± 0.062	0.915 ± 0.051	0.921 ± 0.029	0.916 ± 0.027
glass4	0.572 ± 0.129	0.772 ± 0.145	0.805 ± 0.145	0.764 ± 0.155	0.771 ± 0.142	$0.510 \overset{2,4}{\pm} 0.132$	0.482 ± 0.141
y east - 0 - 5 - 6 - 7 - 9 - v s - 4	0.501 ± 0.026	0.500 ± 0.022	0.737 ± 0.127	0.798 ± 0.051	0.804 ± 0.052	$0.570 \stackrel{7}{\pm} 0.094$	0.580 ± 0.098
yeast-0-2-5-6-vs-3-7-8-9	0.675 ± 0.048	0.776 ± 0.049	0.777 ± 0.045	0.720 ± 0.054	0.751 ± 0.057	0.758 ± 0.071	0.785 ± 0.070
ecoli-0-1-vs-2-3-5	0.607 ± 0.157	0.627 ± 0.170	0.849 ± 0.119	0.854 ± 0.098	0.854 ± 0.098	0.825 ± 0.112	0.823 ± 0.121
ecoli-0-3-4-vs-5	0.788 ± 0.105	0.854 ± 0.110	0.899 ± 0.107	0.909 ± 0.104	0.904 ± 0.103	0.781 ± 0.117	0.757 ± 0.112
glass5	0.948 ± 0.103	0.895 ± 0.155	0.885 ± 0.156	0.893 ± 0.165	0.898 ± 0.156	$0.900 \stackrel{7}{\pm} 0.156$	0.900 ± 0.156
yeast4	0.551 ± 0.039	$0.525 \stackrel{4}{\pm} 0.025$	0.595 ± 0.046	0.805 ± 0.068	0.809 ± 0.069	0.558 ± 0.085	0.569 ± 0.110
glass-0-4-vs-5	0.975 ± 0.083	0.930 ± 0.119	0.915 ± 0.125	0.915 ± 0.146	0.910 ± 0.147	0.928 ± 0.133	0.929 ± 0.133
yeast6	0.636 ± 0.023	0.638 ± 0.023	0.774 ± 0.031	0.888 ± 0.056	0.887 ± 0.056	0.683 ± 0.052	0.690 ± 0.053
page-blocks-1-3-vs-4	0.765 ± 0.095	0.774 ± 0.102	0.818 ± 0.126	0.758 ± 0.106	0.796 ± 0.108	0.760 ± 0.094	0.772 ± 0.095
yeast-1-vs-7	0.594 ± 0.037	0.594 ± 0.042	0.702 ± 0.101	0.664 ± 0.093	0.656 ± 0.098	0.586 ± 0.043	0.580 ± 0.037
ecoli-0-1-3-7-vs-2-6	0.831 ± 0.193	0.845 ± 0.200	0.846 ± 0.199	0.842 ± 0.203	0.839 ± 0.204	$0.840 \stackrel{7}{\pm} 0.190$	0.817 ± 0.193
yeast-1-4-5-8-vs-7	0.544 ± 0.012	0.546 ± 0.014	0.582 ± 0.055	0.630 ± 0.098	0.630 ± 0.098	0.558 ± 0.045	0.569 ± 0.049
ecoli-0-1-4-7-vs-5-6	0.742 ± 0.131	0.842 ± 0.128	0.878 ± 0.114	0.865 ± 0.110	0.870 ± 0.104	0.865 ± 0.081	0.860 ± 0.084
yeast-2- vs -8	0.637 ± 0.090	0.694 ± 0.078	0.784 ± 0.111	0.776 ± 0.111	0.776 ± 0.111	0.620 ± 0.111	0.597 ± 0.096
yeast-0-2-5-7-9-vs-3-6-8	0.576 ± 0.028	0.542 ± 0.025	0.829 ± 0.097	0.901 ± 0.034	0.902 ± 0.034	0.620 ± 0.048	0.688 ± 0.143
glass2	0.607 ± 0.098	0.618 ± 0.101	0.648 ± 0.128	0.740 ± 0.109	0.739 ± 0.109	0.653 ± 0.072	0.647 ± 0.070
	_	_	1,2	1,2,3,6,7	1,2,3,6,7	1,7	1

Table 1: Results for BAC metric

	GNB (1)	OSB (2)	OKNORAU (3)	TBAC (4)	OTBAC (5)	TBAW (6)	OTBAW (7)
Mean rank	2.585	3.134	5.207	5.207	5.354	3.415	3.098
	_	1	1,2,6,7	1,2,6,7	1,2,6,7	1	_

Table 2: Results for mean ranks according to BAC metric

Dataset	GNB (1)	OSB (2)	OKNORAU (3)	TBAC (4)	OTBAC (5)	TBAW (6)	OTBAW (7)
glass-0-1-6-vs-2	0.184 ± 0.057	0.187 ± 0.062	0.210 ± 0.097	0.303 ± 0.098	0.304 ± 0.100	0.199 ± 0.041	0.198 ± 0.042
ecoli-0-3-4-7-vs-5-6	0.414 ± 0.114	0.513 ± 0.136	0.759 ± 0.107	0.779 ± 0.123	0.779 ± 0.123	0.469 ± 0.150	0.394 ± 0.136
shuttle- $c2$ - vs - $c4$	$0.881 \stackrel{-}{\pm} 0.211$	0.990 ± 0.069	0.990 ± 0.069	0.700 ± 0.443	0.700 ± 0.443	0.625 ± 0.416	0.659 ± 0.415
$glass\hbox{-} 0\hbox{-} 1\hbox{-} 4\hbox{-} 6\hbox{-} vs\hbox{-} 2$	$0.177 \stackrel{6,7}{\pm} 0.060$	0.178 ± 0.061	0.203 ± 0.088	$0.311 \stackrel{6}{\pm} 0.090$	$0.309 \stackrel{6}{\pm} 0.088$	0.204 ± 0.029	0.201 ± 0.028
yeast-1-2-8-9- vs -7	0.066 ± 0.001	$0.067 \stackrel{-}{\pm} 0.001$	0.076 ± 0.007	0.169 ± 0.056	0.169 ± 0.056	0.079 ± 0.036	0.081 ± 0.036
ecoli-0-1-4-6- vs -5	0.652 ± 0.214	0.661 ± 0.184	0.753 ± 0.176	$1,2,3,6,7 \\ 0.805 \pm 0.109$	0.809 ± 0.102	0.515 ± 0.185	0.466 ± 0.196
$glass\hbox{-} 0\hbox{-} 1\hbox{-} 6\hbox{-} vs\hbox{-} 5$	0.807 ± 0.227	0.763 ± 0.264	0.752 ± 0.268	0.747 ± 0.264	0.747 ± 0.264	0.729 ± 0.259	0.729 ± 0.259
yeast-2- vs -4	$0.301 \stackrel{6,7}{\pm} 0.222$	0.247 ± 0.120	0.617 ± 0.151	0.759 ± 0.111	0.736 ± 0.110	0.268 ± 0.159	0.312 ± 0.179
$glass\hbox{-} 0\hbox{-} 6\hbox{-} vs\hbox{-} 5$	0.867 ± 0.273	0.841 ± 0.279	0.815 ± 0.286	0.740 ± 0.335	0.740 ± 0.335	0.761 ± 0.317	0.761 ± 0.317
ecoli-0-3-4-6- vs -5	0.384 ± 0.145	0.496 ± 0.166	0.756 ± 0.200	0.769 ± 0.145	0.766 ± 0.143	0.429 ± 0.192	0.407 ± 0.191
$yeast\hbox{-}0\hbox{-}3\hbox{-}5\hbox{-}9\hbox{-}vs\hbox{-}7\hbox{-}8$	0.196 ± 0.006	0.192 ± 0.011	0.339 ± 0.070	0.394 ± 0.122	0.408 ± 0.111	0.200 ± 0.014	0.201 ± 0.019
$glass\hbox{-} 0\hbox{-} 1\hbox{-} 5\hbox{-} vs\hbox{-} 2$	$0.200 \stackrel{2}{\pm} 0.081$	0.175 ± 0.057	0.240 ± 0.121	0.306 ± 0.096	0.304 ± 0.096	0.197 ± 0.037	0.194 ± 0.036
ecoli-0- 6 - 7 - vs - 5	$0.610 \stackrel{2}{\pm} 0.231$ $2.6.7$	0.506 ± 0.148 $6,7$	$ \begin{array}{c} 1,2,6,7\\0.704 \pm 0.176\\1,2,6,7 \end{array} $	$0.764 \pm 0.171 \\ 1,2,3,6,7$ $1,2,3,6,7$	$ \begin{array}{c} 1,2,3,6,7\\0.752 \pm 0.169\\1,2,3,6,7 \end{array} $	0.429 ± 0.115	0.415 ± 0.137
ecoli-0-2-3-4-vs-5	0.442 ± 0.170	0.553 ± 0.167 $1.6.7$	0.752 ± 0.160 $1,2,6,7$	0.801 ± 0.117 $1.2.3.6.7$	0.800 ± 0.119 $1,2,3,6,7$ $1,2,3,6,7$	0.468 ± 0.155	0.454 ± 0.180
ecoli4	0.454 ± 0.158	0.451 ± 0.126	0.690 ± 0.157 $1,2,6,7$	0.852 ± 0.141	$0.822 \pm 0.144 \\ 1,2,3,6,7$	0.483 ± 0.268	0.434 ± 0.252
yeast5	0.152 ± 0.019	0.136 ± 0.018	0.169 ± 0.022	0.610 ± 0.068 $1,2,3,6,7$	0.610 ± 0.068 $1,2,3,6,7$	0.457 ± 0.233 $1,2,3$	0.466 ± 0.236 $1,2,3,6$
ecoli-0-4-6-vs-5	$0.670 \stackrel{2}{\pm} 0.212$ $6,7$	0.713 ± 0.200 $1,6,7$	0.782 ± 0.191 $1,2,6,7$	0.789 ± 0.142 $1,2,6,7$	0.790 ± 0.140 $1,2,6,7$	0.571 ± 0.181	0.556 ± 0.175
$led 7 digit \hbox{-} 0 \hbox{-} 2 \hbox{-} 4 \hbox{-} 5 \hbox{-} 6 \hbox{-} 7 \hbox{-} 8 \hbox{-} 9 \hbox{-} vs \hbox{-} 1$	0.553 ± 0.117 $2.4.5.6.7$	0.532 ± 0.088 $4,5,6,7$	0.611 ± 0.129	0.387 ± 0.177	0.383 ± 0.173	0.431 ± 0.077	0.407 ± 0.076
ecoli-0-1-vs-5	0.667 ± 0.299	0.755 ± 0.222	0.845 ± 0.117 $1,2,6,7$	0.865 ± 0.102 $1,2,6,7$	0.869 ± 0.098 $1,2,6,7$	0.744 ± 0.182	0.695 ± 0.183
ecoli - 0 - 2 - 6 - 7 - vs - 3 - 5	0.216 ± 0.296	0.322 ± 0.280	0.509 ± 0.232 $1,2,6,7$	0.700 ± 0.170	$0.682 \pm 0.174 \\ 1,2,3,6,7$	0.441 ± 0.201 $1,2,7$	0.398 ± 0.165
ecoli - 0 - 1 - 4 - 7 - vs - 2 - 3 - 5 - 6	0.426 ± 0.208	0.441 ± 0.224	0.651 ± 0.244 $1,2,7$	0.749 ± 0.156 $1,2,3,6,7$	0.780 ± 0.144 $1,2,3,6,7$	0.662 ± 0.168 $1,2,7$	0.528 ± 0.125
$shuttle\hbox{-} c0\hbox{-} vs\hbox{-} c4$	0.978 ± 0.022	0.978 ± 0.021	0.979 ± 0.021	0.993 ± 0.009 $1,2,3$	0.993 ± 0.009	0.993 ± 0.010 $1,2,3$	0.993 ± 0.010 $1,2,3$
ecoli-0-6-7- vs -3-5	0.202 ± 0.307	0.284 ± 0.289	0.550 ± 0.206 $1,2,6,7$	0.694 ± 0.168 $1,2,3,6,7$	$0.688 \pm 0.173 \\ 1,2,3,6,7$	0.456 ± 0.194 $1,2,7$	0.420 ± 0.187 $_{1,2}$
vowel0	0.720 ± 0.049 $2,3,6,7$	0.590 ± 0.034	0.641 ± 0.040 2.7	0.798 ± 0.083 $1,2,3,6,7$	0.797 ± 0.069 $1,2,3,6,7$ $1,2,3,6,7$	0.665 ± 0.040 $2.3.7$	0.581 ± 0.037
glass4	0.190 ± 0.222	0.432 ± 0.219 $1,6,7$	0.523 ± 0.229 $1,2,6,7$	0.483 ± 0.249	0.504 ± 0.230 $1,6,7$	0.115 ± 0.048	0.109 ± 0.045
yeast - 0 - 5 - 6 - 7 - 9 - vs - 4	0.176 ± 0.008	0.176 ± 0.007	0.356 ± 0.101 $1,2,6,7$	0.517 ± 0.094	0.495 ± 0.094 $1,2,3,6,7$	0.222 ± 0.089	0.225 ± 0.082 $_{1,2}$
yeast - 0 - 2 - 5 - 6 - vs - 3 - 7 - 8 - 9	$0.466 \stackrel{2}{\pm} 0.094$	0.599 ± 0.079 $1,4,6,7$	0.605 ± 0.075 $1,4,6,7$	0.556 ± 0.098	0.593 ± 0.091 $1,4,7$	0.574 ± 0.111	0.541 ± 0.104
ecoli-0-1-vs-2-3-5	0.267 ± 0.338	0.307 ± 0.353	0.780 ± 0.194 $1,2,6,7$	0.799 ± 0.151 $1,2,6,7$	0.799 ± 0.151 $1,2,6,7$	0.614 ± 0.227	0.607 ± 0.240 $1,2$
ecoli-0-3-4-vs-5	0.443 ± 0.172	0.575 ± 0.174 $1,6,7$	$0.752 \pm 0.177 \\ 1,2,6,7$	0.803 ± 0.160 $1,2,3,6,7$	0.795 ± 0.161 $1,2,3,6,7$	0.435 ± 0.169	0.396 ± 0.167
glass5	0.747 ± 0.183	0.684 ± 0.254	0.685 ± 0.257	0.787 ± 0.299 $1,2,3,6,7$	0.800 ± 0.278 $1,2,3,6,7$ $1,2,3,6,7$	0.761 ± 0.270 2.3	0.761 ± 0.270 2.3
yeast4	0.074 ± 0.006	0.070 ± 0.004	0.082 ± 0.008 1.2	0.330 ± 0.062	$0.325 \pm 0.059 \\ 1,2,3,6,7$	0.096 ± 0.071	0.113 ± 0.097 3.6
$glass\hbox{-} 0\hbox{-} 4\hbox{-} vs\hbox{-} 5$	$0.925 \stackrel{2}{\pm} 0.170$ 2,3	0.866 ± 0.196	0.846 ± 0.198	0.867 ± 0.258	0.860 ± 0.258	0.879 ± 0.231	0.883 ± 0.231
yeast6	0.063 ± 0.004	0.063 ± 0.004	0.109 ± 0.024 $1,2,6,7$	0.386 ± 0.052	0.379 ± 0.052	0.076 ± 0.038 1.2	0.077 ± 0.038
page-blocks-1-3-vs-4	0.502 ± 0.143	0.493 ± 0.149	0.546 ± 0.174	0.551 ± 0.176 $1,2,6,7$	0.595 ± 0.169	0.520 ± 0.149 $1,2,7$	0.481 ± 0.147
yeast-1- vs -7	$0.148 \stackrel{2}{\pm} 0.011$ $6,7$	0.148 ± 0.012	$ \begin{array}{c} 1,2,7 \\ 0.218 \pm 0.060 \\ 1,2,6,7 \end{array} $	0.245 ± 0.095	0.222 ± 0.073	0.146 ± 0.018	0.144 ± 0.014
ecoli - 0 - 1 - 3 - 7 - vs - 2 - 6	0.421 ± 0.251	0.627 ± 0.359	0.641 ± 0.360 $1,6,7$	0.632 ± 0.356	0.597 ± 0.345	0.402 ± 0.241	0.342 ± 0.226
yeast-1-4-5-8- vs -7	0.090 ± 0.002	0.091 ± 0.002	0.099 ± 0.011	0.145 ± 0.053	0.145 ± 0.053	0.094 ± 0.020	0.097 ± 0.022
ecoli - 0 - 1 - 4 - 7 - vs - 5 - 6	0.590 ± 0.239	0.704 ± 0.206	0.761 ± 0.189	0.780 ± 0.186	0.778 ± 0.182	0.642 ± 0.156	0.521 ± 0.130
yeast-2- vs -8	0.193 ± 0.205	0.191 ± 0.160	0.586 ± 0.181	0.665 ± 0.200	0.665 ± 0.200	0.172 ± 0.193	0.104 ± 0.033
yeast - 0 - 2 - 5 - 7 - 9 - vs - 3 - 6 - 8	0.206 ± 0.012	$0.193 \stackrel{6,7}{\pm} 0.010$	0.499 ± 0.140	0.785 ± 0.081	0.752 ± 0.082	0.227 ± 0.026	0.341 ± 0.202
glass2	$0.186 \stackrel{2}{\pm} 0.050$	$0.190 \stackrel{-}{\pm} 0.052$	$ \begin{array}{c} 1,2,6,7\\0.222 \pm 0.081\\1,2,6,7 \end{array} $	$0.322 \pm 0.103 \\ 1,2,3,6,7$	$ \begin{array}{c} 1,2,3,6,7\\0.320 \pm 0.102\\1,2,3,6,7 \end{array} $	0.203 ± 0.037 $1,7$	0.200 ± 0.034

Table 3: Results for F1 metric

	GNB (1)	OSB (2)	OKNORAU (3)	TBAC (4)	OTBAC (5)	TBAW (6)	OTBAW (7)
Mean rank	2.659	2.890	4.768	6.085	5.720	3.244	2.634
	_	_	1,2,6,7	all	1,2,3,6,7	7	_

Table 4: Results for mean ranks according to F1 metric

Dataset	GNB (1)	OSB (2)	OKNORAU (3)	TBAC (4)	OTBAC (5)	TBAW (6)	OTBAW (7)
glass-0-1-6-vs-2	0.106 ± 0.034	0.107 ± 0.037	0.128 ± 0.064	0.194 ± 0.068	0.194 ± 0.069	0.112 ± 0.024	0.111 ± 0.025
ecoli-0-3-4-7-vs-5-6	0.326 ± 0.160	0.396 ± 0.164	0.715 ± 0.126	0.780 ± 0.144	0.780 ± 0.143	0.349 ± 0.168	0.271 ± 0.135
shuttle- $c2$ - vs - $c4$	0.840 ± 0.277	0.987 ± 0.093	0.987 ± 0.093	0.720 ± 0.448	0.720 ± 0.448	0.610 ± 0.430	0.653 ± 0.427
glass-0-1-4-6-vs-2	0.101 ± 0.034	0.101 ± 0.035	0.121 ± 0.053	$0.200 \stackrel{6}{\pm} 0.063$	$0.199 \stackrel{6}{\pm} 0.062$	0.115 ± 0.018	$0.113 \stackrel{-}{\pm} 0.017$
yeast-1-2-8-9-vs-7	0.034 ± 0.000	0.034 ± 0.000	0.040 ± 0.004	0.101 ± 0.034	0.101 ± 0.034	0.043 ± 0.024	0.044 ± 0.024
ecoli-0-1-4-6-vs-5	0.624 ± 0.271	0.570 ± 0.226	0.712 ± 0.218	0.834 ± 0.155	0.836 ± 0.152	0.402 ± 0.216	0.354 ± 0.206
$glass\hbox{-} 0\hbox{-} 1\hbox{-} 6\hbox{-} vs\hbox{-} 5$	0.756 ± 0.272	0.745 ± 0.294	0.770 ± 0.299	0.830 ± 0.289	0.830 ± 0.289	$0.797 \stackrel{7}{\pm} 0.293$	0.797 ± 0.293
yeast-2-vs-4	0.235 ± 0.270	0.152 ± 0.101	0.511 ± 0.154	$0.818 \stackrel{2}{\pm} 0.143$	$0.756 \stackrel{2}{\pm} 0.142$	0.180 ± 0.175	0.213 ± 0.170
$glass\hbox{-} 0\hbox{-} 6\hbox{-} vs\hbox{-} 5$	0.853 ± 0.284	0.850 ± 0.287	0.843 ± 0.293	0.860 ± 0.346	0.860 ± 0.346	0.860 ± 0.327	0.860 ± 0.327
ecoli-0-3-4-6-vs-5	0.274 ± 0.157	0.372 ± 0.181	0.702 ± 0.232	0.744 ± 0.173	0.739 ± 0.172	0.321 ± 0.208	0.301 ± 0.210
yeast - 0 - 3 - 5 - 9 - vs - 7 - 8	0.109 ± 0.003	0.107 ± 0.006	0.235 ± 0.066	0.507 ± 0.180	0.464 ± 0.145	0.112 ± 0.008	0.113 ± 0.012
$glass\hbox{-} 0\hbox{-} 1\hbox{-} 5\hbox{-} vs\hbox{-} 2$	$0.119 \stackrel{2}{\pm} 0.052$	0.101 ± 0.033	0.153 ± 0.083	0.196 ± 0.066	0.193 ± 0.067	$0.110 \stackrel{2}{\pm} 0.021$	$0.109 \overset{1,2}{\pm} 0.021$
ecoli-0-6-7-vs-5	0.597 ± 0.279	0.387 ± 0.172	0.655 ± 0.227	0.803 ± 0.197	0.796 ± 0.196	0.318 ± 0.163	0.319 ± 0.197
ecoli- 0 - 2 - 3 - 4 - vs - 5	0.337 ± 0.200	0.438 ± 0.201	0.694 ± 0.204	0.799 ± 0.164	0.804 ± 0.174	0.358 ± 0.195	0.357 ± 0.232
ecoli4	0.315 ± 0.155	0.304 ± 0.121	0.574 ± 0.192	0.849 ± 0.171	0.786 ± 0.175	0.416 ± 0.329	0.355 ± 0.287
yeast5	0.082 ± 0.011	0.073 ± 0.010	0.093 ± 0.013	0.446 ± 0.069	0.446 ± 0.069	0.326 ± 0.188	0.334 ± 0.188
ecoli-0-4-6-vs-5	0.621 ± 0.241	0.646 ± 0.244	0.767 ± 0.249	0.768 ± 0.181	0.770 ± 0.178	0.462 ± 0.213	0.445 ± 0.206
led 7 digit - 0 - 2 - 4 - 5 - 6 - 7 - 8 - 9 - vs - 1	0.428 ± 0.117	0.387 ± 0.082	0.512 ± 0.189	0.481 ± 0.233	0.472 ± 0.226	0.289 ± 0.071	0.270 ± 0.071
ecoli-0-1- vs -5	0.785 ± 0.364	0.838 ± 0.236	0.907 ± 0.139	0.960 ± 0.094	0.960 ± 0.094	0.722 ± 0.263	0.653 ± 0.263
ecoli - 0 - 2 - 6 - 7 - vs - 3 - 5	0.266 ± 0.354	0.416 ± 0.345	0.635 ± 0.288	0.734 ± 0.193	0.717 ± 0.208	0.353 ± 0.235	0.296 ± 0.188
$ecoli\mbox{-}0\mbox{-}1\mbox{-}4\mbox{-}7\mbox{-}vs\mbox{-}2\mbox{-}3\mbox{-}5\mbox{-}6$	0.778 ± 0.304	0.758 ± 0.295	0.826 ± 0.215	0.908 ± 0.131	0.878 ± 0.134	0.701 ± 0.219	0.419 ± 0.152
shuttle-c0-vs-c4	0.976 ± 0.038	0.977 ± 0.035	0.978 ± 0.035	$1,2,3,6,7$ 1.000 ± 0.000	1.000 ± 0.000	0.999 ± 0.005	0.999 ± 0.005
ecoli-0-6-7- vs -3-5	0.219 ± 0.313	0.348 ± 0.332	0.691 ± 0.236	0.746 ± 0.196	0.742 ± 0.193	0.370 ± 0.242	0.319 ± 0.207
vowel0	0.610 ± 0.063	0.434 ± 0.036	0.484 ± 0.039	0.851 ± 0.078	0.750 ± 0.072	0.521 ± 0.047	0.415 ± 0.034
glass4	0.207 ± 0.281	0.377 ± 0.262	0.473 ± 0.255	0.455 ± 0.282	0.482 ± 0.273	0.063 ± 0.027	0.059 ± 0.024
yeast - 0 - 5 - 6 - 7 - 9 - vs - 4	0.097 ± 0.005	0.097 ± 0.004	0.232 ± 0.078	0.426 ± 0.133	0.382 ± 0.118	0.132 ± 0.075	0.133 ± 0.064
$yeast\hbox{-}0\hbox{-}2\hbox{-}5\hbox{-}6\hbox{-}vs\hbox{-}3\hbox{-}7\hbox{-}8\hbox{-}9$	0.643 ± 0.115	0.612 ± 0.088	0.624 ± 0.089	0.721 ± 0.104	$\begin{array}{c} 1,2,3,6,7\\ 0.696 \pm 0.098\\ 1,2,3,6,7 \end{array}$	$0.599 \stackrel{1,2}{\pm} 0.135$	0.468 ± 0.123
ecoli- 0 - 1 - vs - 2 - 3 - 5	0.433 ± 0.470	0.466 ± 0.467	0.924 ± 0.139	0.953 ± 0.107	0.953 ± 0.107	0.593 ± 0.305	0.565 ± 0.304
ecoli-0-3-4- vs -5	0.335 ± 0.202	0.462 ± 0.190	0.701 ± 0.191	0.793 ± 0.165	0.788 ± 0.168	0.338 ± 0.216	0.308 ± 0.233
glass5	0.655 ± 0.213	0.627 ± 0.267	0.650 ± 0.281	0.837 ± 0.315	0.857 ± 0.292	0.767 ± 0.294 $1,2,3$	0.767 ± 0.294 $1,2,3$
yeast4	0.038 ± 0.003	0.036 ± 0.002	0.043 ± 0.004 1.2	0.217 ± 0.043	0.211 ± 0.039	0.054 ± 0.048	0.066 ± 0.066
$glass\hbox{-} 0\hbox{-} 4\hbox{-} vs\hbox{-} 5$	0.913 ± 0.195	0.910 ± 0.200	0.910 ± 0.200	0.940 ± 0.237	0.940 ± 0.237	0.933 ± 0.218	0.940 ± 0.215
yeast6	0.032 ± 0.002	0.033 ± 0.002	0.058 ± 0.014	0.253 ± 0.040	0.247 ± 0.039	0.040 ± 0.024	0.041 ± 0.024
page-blocks-1-3-vs-4	0.468 ± 0.156	0.440 ± 0.158	0.473 ± 0.164	0.605 ± 0.210	0.603 ± 0.179	0.525 ± 0.173	0.444 ± 0.176
yeast-1-vs-7	$0.080 \stackrel{?}{\pm} 0.006$	0.080 ± 0.007	$0.127 \stackrel{.}{\pm} 0.036$	0.168 ± 0.092	0.141 ± 0.046	0.079 ± 0.010	0.078 ± 0.008
ecoli-0-1-3-7-vs-2-6	0.353 ± 0.279	0.620 ± 0.387	0.640 ± 0.384	0.634 ± 0.387	0.590 ± 0.383	0.311 ± 0.238	0.273 ± 0.254
yeast-1-4-5-8- vs -7	0.047 ± 0.001	0.048 ± 0.001	0.052 ± 0.006	0.085 ± 0.031	0.085 ± 0.031	0.049 ± 0.012	0.052 ± 0.013
ecoli - 0 - 1 - 4 - 7 - vs - 5 - 6	0.838 ± 0.239	0.746 ± 0.193	0.768 ± 0.190	0.862 ± 0.184	0.842 ± 0.193	0.579 ± 0.201	0.395 ± 0.134
yeast-2-vs-8	0.171 ± 0.241	$0.150 \stackrel{6,7}{\pm} 0.191$	0.683 ± 0.256	0.911 ± 0.189	0.911 ± 0.189	0.141 ± 0.226	0.056 ± 0.020
$yeast \hbox{-} 0 \hbox{-} 2 \hbox{-} 5 \hbox{-} 7 \hbox{-} 9 \hbox{-} vs \hbox{-} 3 \hbox{-} 6 \hbox{-} 8$	0.115 ± 0.007	0.107 ± 0.006	0.362 ± 0.132	0.757 ± 0.132	0.688 ± 0.123	0.129 ± 0.017	0.234 ± 0.185
glass2	$0.106 \stackrel{2}{\pm} 0.029$	0.108 ± 0.030	0.133 ± 0.052	0.210 ± 0.078	0.209 ± 0.078	0.114 ± 0.022	0.112 ± 0.020
	l –	_	1,2,6,7	1,2,3,6,7	1,2,3,6,7	7	_

Table 5: Results for Precision metric

	GNB (1)	OSB (2)	OKNORAU (3)	TBAC (4)	OTBAC (5)	TBAW (6)	OTBAW (7)
Mean rank	2.561	2.537	4.537	6.561	6.073	3.098	2.634
	_	_	1,2,6,7	all	1,2,3,6,7	2,7	_

Table 6: Results for mean ranks according to Precision metric

Dataset	GNB (1)	OSB (2)	OKNORAU (3)	TBAC (4)	OTBAC (5)	TBAW (6)	OTBAW (7)
glass-0-1-6-vs-2	0.737 ± 0.215	0.778 ± 0.244	0.640 ± 0.258	0.735 ± 0.222	0.740 ± 0.225	0.915 ± 0.153	0.920 ± 0.151
ecoli - 0 - 3 - 4 - 7 - vs - 5 - 6	0.792 ± 0.236	0.844 ± 0.180	0.832 ± 0.151	0.796 ± 0.152	0.796 ± 0.152	0.876 ± 0.154	0.900 ± 0.139
shuttle- $c2$ - vs - $c4$	1.000 ± 0.000	$1.000 \stackrel{4.5}{\pm} 0.000$	1.000 ± 0.000	0.690 ± 0.445	0.690 ± 0.445	0.690 ± 0.445	0.700 ± 0.435
$glass\hbox{-}0\hbox{-}1\hbox{-}4\hbox{-}6\hbox{-}vs\hbox{-}2$	0.745 ± 0.267	0.763 ± 0.273	0.655 ± 0.286	0.730 ± 0.195	0.730 ± 0.195	0.938 ± 0.110	0.938 ± 0.110
yeast-1-2-8-9-vs-7	1.000 ± 0.000	$1.000 \stackrel{3}{\pm} 0.000$	0.927 ± 0.106	0.520 ± 0.172	0.520 ± 0.172	0.897 ± 0.228	0.887 ± 0.239
ecoli- 0 - 1 - 4 - 6 - vs - 5	0.750 ± 0.173	0.850 ± 0.150	0.840 ± 0.164	0.815 ± 0.164	0.820 ± 0.158	0.860 ± 0.133	0.870 ± 0.134
$glass\hbox{-} 0\hbox{-} 1\hbox{-} 6\hbox{-} vs\hbox{-} 5$	0.930 ± 0.223	$0.840 \stackrel{1}{\pm} 0.290$	$0.790 \stackrel{1}{\pm} 0.301$	$0.730 \stackrel{1}{\pm} 0.303$	$0.730 \stackrel{1}{\pm} 0.303$	$0.730 \stackrel{1}{\pm} 0.303$	0.730 ± 0.303
yeast-2- vs -4	0.921 ± 0.100	0.936 ± 0.083	0.838 ± 0.106	0.731 ± 0.142	0.743 ± 0.142	0.900 ± 0.105	0.922 ± 0.090
$glass\hbox{-} 0\hbox{-} 6\hbox{-} vs\hbox{-} 5$	0.900 ± 0.282	0.860 ± 0.300	0.820 ± 0.312	0.680 ± 0.357	0.680 ± 0.357	0.720 ± 0.348	0.720 ± 0.348
ecoli-0-3-4-6-vs-5	0.840 ± 0.171	0.860 ± 0.159	0.850 ± 0.173	0.820 ± 0.166	0.820 ± 0.166	0.855 ± 0.166	0.865 ± 0.159
yeast - 0 - 3 - 5 - 9 - vs - 7 - 8	0.992 ± 0.033	0.974 ± 0.059	0.682 ± 0.176	0.350 ± 0.144	0.392 ± 0.146	0.934 ± 0.095	0.934 ± 0.105
$glass\hbox{-}0\hbox{-}1\hbox{-}5\hbox{-}vs\hbox{-}2$	0.675 ± 0.253	0.700 ± 0.244	0.605 ± 0.277	$0.745 \stackrel{-}{\pm} 0.238$	0.745 ± 0.238	0.925 ± 0.154	0.925 ± 0.154
ecoli-0-6-7-vs-5	0.720 ± 0.210	$0.845 \stackrel{3}{\pm} 0.179$	0.815 ± 0.171	0.760 ± 0.199	0.745 ± 0.196	0.840 ± 0.185	0.830 ± 0.196
ecoli-0-2-3-4-vs-5	0.830 ± 0.153	0.850 ± 0.150	0.855 ± 0.150	0.835 ± 0.155	0.830 ± 0.153	0.855 ± 0.158	0.845 ± 0.157
ecoli4	0.940 ± 0.106	0.950 ± 0.099	0.920 ± 0.116	0.880 ± 0.160	0.890 ± 0.159	0.930 ± 0.150	0.930 ± 0.150
yeast5	0.996 ± 0.031	$0.996 \overset{4,5}{\pm} 0.031$	0.996 ± 0.031	0.982 ± 0.046	0.982 ± 0.046	$0.984 \stackrel{4}{\pm} 0.044$	$0.984 \stackrel{4}{\pm} 0.044$
ecoli-0-4-6- vs -5	0.780 ± 0.184	0.850 ± 0.158	0.845 ± 0.165	0.835 ± 0.155	0.835 ± 0.155	0.840 ± 0.156	0.850 ± 0.150
led7digit-0-2-4-5-6-7-8-9-vs-1	0.816 ± 0.137	$0.874 \stackrel{1}{\pm} 0.127$	0.845 ± 0.138	0.345 ± 0.179	0.345 ± 0.179	$0.930 \stackrel{1}{\pm} 0.143$	0.925 ± 0.142
ecoli- 0 - 1 - vs - 5	$0.620 \overset{4.5}{\pm} 0.279$	0.720 ± 0.248	0.820 ± 0.166	0.805 ± 0.152	0.810 ± 0.146	0.845 ± 0.157	0.840 ± 0.156
ecoli-0-2-6-7-vs-3-5	0.199 ± 0.290	$0.315 \stackrel{1}{\pm} 0.325$	0.476 ± 0.266	$0.695 \stackrel{1}{\pm} 0.198$	0.682 ± 0.203	0.764 ± 0.155	$0.789 \overset{1,2}{\pm} 0.141$
ecoli-0-1-4-7-vs-2-3-5-6	0.308 ± 0.178	$0.346 \stackrel{1}{\pm} 0.245$	0.575 ± 0.279	0.663 ± 0.201	0.722 ± 0.182	0.699 ± 0.205	0.826 ± 0.175
shuttle-c0-vs-c4	0.982 ± 0.025	0.980 ± 0.027	0.980 ± 0.027	0.987 ± 0.019	0.987 ± 0.019	0.987 ± 0.019	$0.987 \stackrel{all}{\pm} 0.019$
ecoli-0-6-7-vs-3-5	0.199 ± 0.320	0.297 ± 0.359	0.520 ± 0.276	0.677 ± 0.200	0.672 ± 0.209	0.770 ± 0.150	0.787 ± 0.152
vowel0	0.889 ± 0.081	$0.929 \stackrel{1}{\pm} 0.053$	0.954 ± 0.058	0.763 ± 0.126	0.859 ± 0.102	0.929 ± 0.064	0.970 ± 0.054
glass4	0.210 ± 0.244	0.637 ± 0.280	0.667 ± 0.288	0.580 ± 0.302	0.593 ± 0.275	0.670 ± 0.250	$0.693 \stackrel{all}{\pm} 0.252$
yeast-0-5-6-7-9-vs-4	0.969 ± 0.045	$0.977 \stackrel{1}{\pm} 0.041$	0.871 ± 0.109	0.721 ± 0.111	0.758 ± 0.108	0.947 ± 0.097	0.946 ± 0.095
yeast-0-2-5-6-vs-3-7-8-9	0.372 ± 0.096	0.595 ± 0.099	$0.595 \overset{4,5}{\pm} 0.090$	0.460 ± 0.109	$0.527 \stackrel{4}{\pm} 0.117$	0.592 ± 0.129	0.692 ± 0.112
ecoli- 0 - 1 - vs - 2 - 3 - 5	0.218 ± 0.314	0.260 ± 0.340	0.704 ± 0.235	$0.712 \stackrel{1}{\pm} 0.196$	0.712 ± 0.196	0.771 ± 0.177	$0.789 \stackrel{all}{\pm} 0.158$
ecoli-0-3-4-vs-5	0.845 ± 0.186	$0.850 \stackrel{1}{\pm} 0.193$	0.845 ± 0.205	0.845 ± 0.205	0.835 ± 0.203	0.855 ± 0.200	0.855 ± 0.194
glass5	0.920 ± 0.208	0.810 ± 0.314	0.790 ± 0.317	0.790 ± 0.333	0.800 ± 0.316	0.810 ± 0.314	0.810 ± 0.314
yeast4	0.961 ± 0.057	0.971 ± 0.048	0.944 ± 0.067	0.703 ± 0.140	0.714 ± 0.143	0.943 ± 0.124	0.927 ± 0.133
glass-0-4-vs-5	0.960 ± 0.168	0.870 ± 0.241	0.840 ± 0.253	0.830 ± 0.293	0.820 ± 0.295	0.860 ± 0.265	$0.860 \overset{4.5}{\pm} 0.265$
yeast6	0.986 ± 0.042	0.991 ± 0.033	0.937 ± 0.086	0.837 ± 0.117	0.837 ± 0.117	1.000 ± 0.000	1.000 ± 0.000
page-blocks-1-3-vs-4	0.576 ± 0.190	0.600 ± 0.205	0.687 ± 0.252	0.541 ± 0.209	0.620 ± 0.216	0.559 ± 0.200	0.611 ± 0.218
yeast-1-vs-7	0.973 ± 0.077	$0.970 \stackrel{4}{\pm} 0.086$	0.793 ± 0.209	0.540 ± 0.206	0.543 ± 0.212	0.973 ± 0.069	0.967 ± 0.074
ecoli-0-1-3-7-vs-2-6	0.700 ± 0.400	0.700 ± 0.400	$0.700 \overset{4,5}{\pm} 0.400$	0.700 ± 0.400	0.700 ± 0.400	0.730 ± 0.389	0.700 ± 0.400
yeast-1-4-5-8-vs-7	1.000 ± 0.000	$-$ 1.000 \pm 0.000	0.910 ± 0.125	0.513 ± 0.193	0.513 ± 0.193	0.947 ± 0.174	0.930 ± 0.188
ecoli-0-1-4-7-vs-5-6	$3,4,5,7 \\ 0.492 \pm 0.259$	0.704 ± 0.256	0.776 ± 0.224	0.740 ± 0.220	0.752 ± 0.209	0.796 ± 0.162	0.856 ± 0.155
yeast-2-vs-8	0.890 ± 0.218	$0.870 \stackrel{1}{\pm} 0.213$	0.585 ± 0.232	0.555 ± 0.219	0.555 ± 0.219	0.880 ± 0.188	0.900 ± 0.173
yeast-0-2-5-7-9-vs-3-6-8	0.986 ± 0.031	0.987 ± 0.026	0.905 ± 0.074	0.836 ± 0.077	0.853 ± 0.078	0.976 ± 0.035	0.952 ± 0.044
glass2	$\begin{array}{c} 3,4,5,7 \\ 0.773 \pm 0.200 \end{array}$	0.823 ± 0.209	0.725 ± 0.235	0.732 ± 0.198	0.732 ± 0.198	$3,4,5,7 \\ 0.940 \pm 0.121$	0.940 ± 0.121
	<u> </u>	3,4,5	_	_	_	1,2,3,4,5	1,2,3,4,5

Table 7: Results for Recall metric

	GNB (1)	OSB (2)	OKNORAU (3)	TBAC (4)	OTBAC (5)	TBAW (6)	OTBAW (7)
Mean rank	3.744	4.878	3.732	2.293	2.683	5.183	5.488
	4,5	1,3,4,5	4,5	_	4	1,3,4,5	1,3,4,5

Table 8: Results for mean ranks according to Recall metric

Dataset	GNB (1)	OSB (2)	OKNORAU (3)	TBAC (4)	OTBAC (5)	TBAW (6)	OTBAW (7)
glass-0-1-6-vs-2	0.565 ± 0.111	0.573 ± 0.119	0.598 ± 0.141	0.715 ± 0.115	0.716 ± 0.116	0.602 ± 0.083	0.601 ± 0.083
ecoli-0-3-4-7-vs-5-6	0.778 ± 0.080	0.837 ± 0.083	0.897 ± 0.075	0.885 ± 0.078	0.885 ± 0.078	0.818 ± 0.087	0.776 ± 0.094
shuttle- $c2$ - vs - $c4$	0.988 ± 0.022	$0.999 \stackrel{1,7}{\pm} 0.005$	0.999 ± 0.005	0.845 ± 0.222	0.845 ± 0.222	0.836 ± 0.225	0.845 ± 0.217
glass-0-1-4-6-vs-2	0.579 ± 0.128	0.582 ± 0.129	0.610 ± 0.154	0.727 ± 0.104	0.727 ± 0.103	0.640 ± 0.073	0.635 ± 0.072
yeast-1-2-8-9-vs-7	0.540 ± 0.011	0.541 ± 0.012	0.597 ± 0.048	0.683 ± 0.087	0.683 ± 0.086	0.572 ± 0.054	0.579 ± 0.053
ecoli-0-1-4-6- vs -5	0.847 ± 0.098	0.891 ± 0.088	0.902 ± 0.087	0.899 ± 0.079	0.902 ± 0.076	0.858 ± 0.076	0.834 ± 0.093
$glass\hbox{-} 0\hbox{-} 1\hbox{-} 6\hbox{-} vs\hbox{-} 5$	0.956 ± 0.109	0.912 ± 0.144	0.888 ± 0.151	0.861 ± 0.151	0.861 ± 0.151	0.860 ± 0.150	0.860 ± 0.150
yeast-2- vs -4	0.608 ± 0.128	0.591 ± 0.122	0.852 ± 0.098	0.855 ± 0.071	0.856 ± 0.070	0.617 ± 0.104	0.653 ± 0.138
$glass\hbox{-} 0\hbox{-} 6\hbox{-} vs\hbox{-} 5$	0.945 ± 0.140	0.925 ± 0.149	0.905 ± 0.156	0.840 ± 0.178	0.840 ± 0.178	0.858 ± 0.173	0.858 ± 0.173
ecoli-0-3-4-6-vs-5	0.755 ± 0.102	0.827 ± 0.099	0.899 ± 0.104	0.893 ± 0.087	0.892 ± 0.086	0.770 ± 0.123	0.757 ± 0.119
yeast - 0 - 3 - 5 - 9 - vs - 7 - 8	0.550 ± 0.018	0.539 ± 0.030	0.708 ± 0.073	0.654 ± 0.066	0.668 ± 0.066	0.561 ± 0.034	0.562 ± 0.043
$glass\hbox{-} 0\hbox{-} 1\hbox{-} 5\hbox{-} vs\hbox{-} 2$	$0.555 \stackrel{2}{\pm} 0.134$	0.511 ± 0.115	0.609 ± 0.155	0.705 ± 0.115	0.703 ± 0.116	0.557 ± 0.066	$0.550 \stackrel{2}{\pm} 0.066$
ecoli-0-6-7-vs-5	0.813 ± 0.124	0.838 ± 0.103	0.878 ± 0.096	0.869 ± 0.102	0.861 ± 0.101	0.803 ± 0.085	$0.787 \stackrel{2}{\pm} 0.099$
ecoli- 0 - 2 - 3 - 4 - vs - 5	0.780 ± 0.098	0.846 ± 0.094	0.902 ± 0.084	0.903 ± 0.077	0.901 ± 0.076	0.803 ± 0.090	0.784 ± 0.103
ecoli4	0.886 ± 0.083	0.896 ± 0.065	0.933 ± 0.066	0.934 ± 0.081	0.936 ± 0.081	0.852 ± 0.092	0.828 ± 0.102
yeast5	0.825 ± 0.024	0.801 ± 0.029	0.846 ± 0.023	0.972 ± 0.024	0.972 ± 0.024	0.915 ± 0.091	0.909 ± 0.107
ecoli-0-4-6- vs -5	$0.851 \stackrel{?}{\pm} 0.114$	0.888 ± 0.102	0.901 ± 0.096	0.901 ± 0.082	0.902 ± 0.082	0.847 ± 0.099	0.842 ± 0.099
$led 7 digit \hbox{-} 0 \hbox{-} 2 \hbox{-} 4 \hbox{-} 5 \hbox{-} 6 \hbox{-} 7 \hbox{-} 8 \hbox{-} 9 \hbox{-} vs \hbox{-} 1$	0.853 ± 0.073	0.871 ± 0.065	0.876 ± 0.067	0.654 ± 0.091	0.654 ± 0.091	0.851 ± 0.064	0.837 ± 0.062
ecoli-0-1- vs -5	0.800 ± 0.143	0.853 ± 0.126	$\begin{array}{c} 2,4,5,6,7\\ 0.905 \pm 0.082 \end{array}$	0.900 ± 0.075	0.903 ± 0.072	0.897 ± 0.083	0.885 ± 0.083
ecoli - 0 - 2 - 6 - 7 - vs - 3 - 5	0.586 ± 0.145	0.640 ± 0.156	0.722 ± 0.130	0.832 ± 0.102	0.824 ± 0.104	0.755 ± 0.114	0.741 ± 0.114
$ecoli\mbox{-}0\mbox{-}1\mbox{-}4\mbox{-}7\mbox{-}vs\mbox{-}2\mbox{-}3\mbox{-}5\mbox{-}6$	0.651 ± 0.090	0.668 ± 0.121	0.783 ± 0.140	0.828 ± 0.101	0.856 ± 0.091	0.826 ± 0.097	0.843 ± 0.079
shuttle-c0-vs-c4	0.990 ± 0.012	0.989 ± 0.013	0.989 ± 0.013	0.993 ± 0.009	0.993 ± 0.009	0.993 ± 0.009	0.993 ± 0.009
$ecoli\hbox{-}0\hbox{-}6\hbox{-}7\hbox{-}vs\hbox{-}3\hbox{-}5$	0.587 ± 0.158	0.633 ± 0.171	0.746 ± 0.132	0.824 ± 0.102	0.822 ± 0.107	0.768 ± 0.105	0.754 ± 0.114
vowel0	0.915 ± 0.037	0.903 ± 0.024	0.926 ± 0.028	0.875 ± 0.062	0.915 ± 0.051	0.921 ± 0.029	0.916 ± 0.027
glass4	0.572 ± 0.129	0.772 ± 0.145	0.805 ± 0.145	0.764 ± 0.155	0.771 ± 0.142	0.510 ± 0.132	0.482 ± 0.141
yeast - 0 - 5 - 6 - 7 - 9 - vs - 4	$0.501 \stackrel{7}{\pm} 0.026$	0.500 ± 0.022	0.737 ± 0.127	0.798 ± 0.051	0.804 ± 0.052	0.570 ± 0.094	0.580 ± 0.098
$yeast \hbox{-} 0 \hbox{-} 2 \hbox{-} 5 \hbox{-} 6 \hbox{-} vs \hbox{-} 3 \hbox{-} 7 \hbox{-} 8 \hbox{-} 9$	$0.675 \stackrel{?}{\pm} 0.048$	0.776 ± 0.049 $1,4,5,6$	0.777 ± 0.045	0.720 ± 0.054	0.751 ± 0.057	0.758 ± 0.071	$0.785 \overset{1,2}{\pm} 0.070$
$ecoli\hbox{-}0\hbox{-}1\hbox{-}vs\hbox{-}2\hbox{-}3\hbox{-}5$	0.607 ± 0.157	0.627 ± 0.170	0.849 ± 0.119	0.854 ± 0.098	0.854 ± 0.098	0.825 ± 0.112	0.823 ± 0.121
ecoli- 0 - 3 - 4 - vs - 5	0.788 ± 0.105	0.854 ± 0.110	0.899 ± 0.107	0.909 ± 0.104	0.904 ± 0.103	0.781 ± 0.117	0.757 ± 0.112
glass5	0.948 ± 0.103	0.895 ± 0.155	0.885 ± 0.156	0.893 ± 0.165	0.898 ± 0.156	0.900 ± 0.156 2.3.4.5	0.900 ± 0.156 $2.3.4.5$
yeast4	0.551 ± 0.039	$0.525 \stackrel{4}{\pm} 0.025$	0.595 ± 0.046 $1,2,6,7$	0.805 ± 0.068	0.809 ± 0.069	0.558 ± 0.085	0.569 ± 0.110
$glass\hbox{-} 0\hbox{-} 4\hbox{-} vs\hbox{-} 5$	$0.975 \stackrel{2}{\pm} 0.083$	0.930 ± 0.119	0.915 ± 0.125	0.915 ± 0.146	$0.910 \stackrel{all}{\pm} 0.147$	0.928 ± 0.133	0.929 ± 0.133
yeast6	0.636 ± 0.023	0.638 ± 0.023	0.774 ± 0.031 $1,2,6,7$	0.888 ± 0.056	0.887 ± 0.056	0.683 ± 0.052	0.690 ± 0.053
$page-blocks-1\hbox{-} 3\hbox{-} vs\hbox{-} 4$	0.765 ± 0.095	0.774 ± 0.102	0.818 ± 0.126	0.758 ± 0.106	0.796 ± 0.108	0.760 ± 0.094	0.772 ± 0.095
yeast-1- vs -7	0.594 ± 0.037	0.594 ± 0.042	0.702 ± 0.101	0.664 ± 0.093	0.656 ± 0.098	0.586 ± 0.043	0.580 ± 0.037
ecoli - 0 - 1 - 3 - 7 - vs - 2 - 6	0.831 ± 0.193	0.845 ± 0.200	0.846 ± 0.199	0.842 ± 0.203	0.839 ± 0.204	0.840 ± 0.190	0.817 ± 0.193
yeast-1-4-5-8- vs -7	0.544 ± 0.012	0.546 ± 0.014	$1,5,6,7$ 0.582 ± 0.055	0.630 ± 0.098	0.630 ± 0.098	0.558 ± 0.045	0.569 ± 0.049
ecoli- 0 - 1 - 4 - 7 - vs - 5 - 6	0.742 ± 0.131	0.842 ± 0.128	0.878 ± 0.114	0.865 ± 0.110	0.870 ± 0.104	$0.865 \overset{1,2}{\pm} 0.081$	0.860 ± 0.084
yeast-2- vs -8	0.637 ± 0.090	0.694 ± 0.078	0.784 ± 0.111	0.776 ± 0.111	0.776 ± 0.111	0.620 ± 0.111	0.597 ± 0.096
$yeast\hbox{-} 0\hbox{-} 2\hbox{-} 5\hbox{-} 7\hbox{-} 9\hbox{-} vs\hbox{-} 3\hbox{-} 6\hbox{-} 8$	0.576 ± 0.028	0.542 ± 0.025	0.829 ± 0.097	0.901 ± 0.034	0.902 ± 0.034	0.620 ± 0.048	0.688 ± 0.143
glass2	$0.607 \stackrel{2}{\pm} 0.098$	0.618 ± 0.101	0.648 ± 0.128	0.740 ± 0.109	0.739 ± 0.109	0.653 ± 0.072	0.647 ± 0.070
	<u> </u>	_	1,2	1,2,3,6,7	1,2,3,6,7	1,7	1

Table 9: Results for AUC metric

	GNB (1)	OSB (2)	OKNORAU (3)	TBAC (4)	OTBAC (5)	TBAW (6)	OTBAW (7)
Mean rank	2.585	3.134	5.207	5.195	5.366	3.415	3.098
	_	1	1,2,6,7	1,2,6,7	1,2,6,7	1	_

Table 10: Results for mean ranks according to AUC metric

Dataset	GNB (1)	OSB (2)	OKNORAU (3)	TBAC (4)	OTBAC (5)	TBAW (6)	OTBAW (7)
glass-0-1-6-vs-2	0.524 ± 0.114	0.515 ± 0.130	0.568 ± 0.183	0.703 ± 0.121	0.705 ± 0.122	0.509 ± 0.078	0.503 ± 0.078
ecoli-0-3-4-7-vs-5-6	0.756 ± 0.105	0.828 ± 0.090	0.890 ± 0.083	0.876 ± 0.086	0.876 ± 0.086	0.806 ± 0.094	0.751 ± 0.113
shuttle- $c2$ - vs - $c4$	0.988 ± 0.023	0.999 ± 0.005	0.999 ± 0.005	0.702 ± 0.443	0.702 ± 0.443	0.697 ± 0.439	0.713 ± 0.429
$glass\hbox{-} 0\hbox{-} 1\hbox{-} 4\hbox{-} 6\hbox{-} vs\hbox{-} 2$	0.528 ± 0.145	0.526 ± 0.144	0.579 ± 0.190	$0.719 \stackrel{6}{\pm} 0.109$	$0.718 \stackrel{6}{\pm} 0.107$	0.560 ± 0.088	0.551 ± 0.088
yeast-1-2-8-9-vs-7	0.281 ± 0.039	0.284 ± 0.042	0.493 ± 0.042	0.653 ± 0.116	0.653 ± 0.116	0.394 ± 0.116	0.413 ± 0.117
ecoli- 0 - 1 - 4 - 6 - vs - 5	0.835 ± 0.108	0.887 ± 0.092	0.896 ± 0.096	0.890 ± 0.090	0.894 ± 0.087	0.853 ± 0.078	0.826 ± 0.096
$glass\hbox{-} 0\hbox{-} 1\hbox{-} 6\hbox{-} vs\hbox{-} 5$	0.933 ± 0.202	0.874 ± 0.249	0.846 ± 0.251	0.814 ± 0.249	0.814 ± 0.249	0.813 ± 0.248	0.813 ± 0.248
yeast-2-vs-4	0.445 ± 0.216	0.413 ± 0.215	0.840 ± 0.126	0.842 ± 0.084	0.844 ± 0.084	0.506 ± 0.170	0.540 ± 0.216
$glass\hbox{-} 0\hbox{-} 6\hbox{-} vs\hbox{-} 5$	0.903 ± 0.272	0.880 ± 0.276	0.857 ± 0.278	0.755 ± 0.332	0.755 ± 0.332	$0.785 \stackrel{2}{\pm} 0.318$	0.785 ± 0.318
ecoli-0-3-4-6-vs-5	0.735 ± 0.109	0.820 ± 0.102	0.894 ± 0.111	0.885 ± 0.096	0.884 ± 0.096	0.748 ± 0.139	0.729 ± 0.139
yeast-0-3-5-9-vs-7-8	0.324 ± 0.051	0.310 ± 0.063	0.694 ± 0.089	0.562 ± 0.132	0.593 ± 0.126	$0.406 \stackrel{7}{\pm} 0.071$	0.404 ± 0.084
$glass\hbox{-} 0\hbox{-} 1\hbox{-} 5\hbox{-} vs\hbox{-} 2$	0.518 ± 0.148	0.453 ± 0.116	0.576 ± 0.201	0.685 ± 0.145	0.683 ± 0.145	0.406 ± 0.063	0.391 ± 0.063
$ecoli \hbox{-} 0 \hbox{-} 6 \hbox{-} 7 \hbox{-} vs \hbox{-} 5$	0.796 ± 0.145	0.831 ± 0.107	0.871 ± 0.104	0.853 ± 0.124	0.845 ± 0.123	0.791 ± 0.089	0.772 ± 0.109
ecoli- 0 - 2 - 3 - 4 - vs - 5	0.768 ± 0.100	0.842 ± 0.095	0.897 ± 0.090	0.897 ± 0.086	0.894 ± 0.085	0.787 ± 0.102	0.766 ± 0.115
ecoli4	0.883 ± 0.085	0.893 ± 0.065	0.931 ± 0.068	0.928 ± 0.091	0.930 ± 0.090	0.832 ± 0.111	0.801 ± 0.127
yeast5	0.807 ± 0.028	0.776 ± 0.037	0.832 ± 0.026	0.971 ± 0.024	0.971 ± 0.024	0.907 ± 0.103	0.898 ± 0.125
ecoli- 0 - 4 - 6 - vs - 5	0.842 ± 0.122	0.883 ± 0.107	0.895 ± 0.103	0.895 ± 0.090	0.895 ± 0.090	0.842 ± 0.101	0.837 ± 0.103
$led 7 digit \hbox{-} 0\hbox{-} 2\hbox{-} 4\hbox{-} 5\hbox{-} 6\hbox{-} 7\hbox{-} 8\hbox{-} 9\hbox{-} vs\hbox{-} 1$	0.849 ± 0.077	0.868 ± 0.067	0.871 ± 0.071	0.548 ± 0.179	0.548 ± 0.178	$0.841 \stackrel{7}{\pm} 0.077$	0.825 ± 0.075
ecoli- 0 - 1 - vs - 5	0.725 ± 0.286	0.822 ± 0.186	0.896 ± 0.094	0.891 ± 0.086	0.894 ± 0.082	0.891 ± 0.090	0.879 ± 0.089
ecoli - 0 - 2 - 6 - 7 - vs - 3 - 5	0.278 ± 0.340	0.436 ± 0.331	0.633 ± 0.241	0.812 ± 0.128	0.802 ± 0.130	0.745 ± 0.118	0.728 ± 0.123
$ecoli \hbox{-} 0 \hbox{-} 1 \hbox{-} 4 \hbox{-} 7 \hbox{-} vs \hbox{-} 2 \hbox{-} 3 \hbox{-} 5 \hbox{-} 6$	0.517 ± 0.198	0.539 ± 0.226	0.725 ± 0.211	0.801 ± 0.128	0.837 ± 0.115	0.804 ± 0.122	0.833 ± 0.094
shuttle-c0-vs-c4	0.990 ± 0.013	0.989 ± 0.013	0.989 ± 0.013	0.993 ± 0.009	0.993 ± 0.009	0.993 ± 0.009	0.993 ± 0.009
ecoli- 0 - 6 - 7 - vs - 3 - 5	0.258 ± 0.355	0.383 ± 0.366	0.675 ± 0.217	0.801 ± 0.126	0.797 ± 0.133	0.760 ± 0.107	0.743 ± 0.119
vowel0	0.913 ± 0.040	0.902 ± 0.024	0.925 ± 0.028	0.864 ± 0.072	0.911 ± 0.055	0.920 ± 0.030	0.914 ± 0.026
glass4	0.304 ± 0.325	0.725 ± 0.231	0.762 ± 0.219	0.686 ± 0.285	$0.710 \stackrel{4}{\pm} 0.246$	0.471 ± 0.118	0.417 ± 0.129
yeast - 0 - 5 - 6 - 7 - 9 - vs - 4	0.164 ± 0.068	0.140 ± 0.059	0.685 ± 0.214	0.790 ± 0.057	0.799 ± 0.054	0.353 ± 0.192	$0.368 \stackrel{1}{\pm} 0.212$
$yeast \hbox{-} 0 \hbox{-} 2 \hbox{-} 5 \hbox{-} 6 \hbox{-} vs \hbox{-} 3 \hbox{-} 7 \hbox{-} 8 \hbox{-} 9$	$0.598 \stackrel{2}{\pm} 0.077$	0.752 ± 0.064	0.753 ± 0.057	0.667 ± 0.079	0.712 ± 0.078	0.722 ± 0.111	0.762 ± 0.125
ecoli- 0 - 1 - vs - 2 - 3 - 5	0.305 ± 0.352	0.348 ± 0.370	0.822 ± 0.155	0.833 ± 0.125	0.833 ± 0.125	0.814 ± 0.119	0.815 ± 0.124
ecoli-0-3-4-vs-5	0.772 ± 0.112	0.846 ± 0.119	0.890 ± 0.127	0.898 ± 0.125	0.893 ± 0.125	0.757 ± 0.139	0.729 ± 0.131
glass5	0.933 ± 0.163	0.846 ± 0.275	0.835 ± 0.275	0.834 ± 0.302	0.848 ± 0.278	$0.851 \stackrel{7}{\pm} 0.277$	0.851 ± 0.277
yeast4	0.361 ± 0.067	0.274 ± 0.045	$0.480 \stackrel{4}{\pm} 0.058$	0.794 ± 0.082	0.799 ± 0.083	0.296 ± 0.205	0.312 ± 0.242
$glass\hbox{-} 0\hbox{-} 4\hbox{-} vs\hbox{-} 5$	0.963 ± 0.149	0.910 ± 0.176	0.893 ± 0.181	0.876 ± 0.251	0.870 ± 0.252	0.900 ± 0.217	0.900 ± 0.217
yeast6	0.529 ± 0.045	0.528 ± 0.048	0.750 ± 0.043	0.884 ± 0.062	0.883 ± 0.062	0.600 ± 0.078	0.611 ± 0.078
page-blocks-1-3-vs-4	0.730 ± 0.130	0.741 ± 0.138	0.791 ± 0.163	0.712 ± 0.145	0.763 ± 0.146	0.719 ± 0.133	0.738 ± 0.130
yeast-1-vs-7	0.452 ± 0.051	0.453 ± 0.059	0.681 ± 0.130	0.637 ± 0.114	0.631 ± 0.121	0.430 ± 0.078	0.419 ± 0.085
ecoli - 0 - 1 - 3 - 7 - vs - 2 - 6	0.725 ± 0.377	0.738 ± 0.385	0.738 ± 0.386	0.737 ± 0.385	0.736 ± 0.384	0.746 ± 0.364	0.714 ± 0.370
$yeast \hbox{-} 1 \hbox{-} 4 \hbox{-} 5 \hbox{-} 8 \hbox{-} vs \hbox{-} 7$	0.293 ± 0.044	0.301 ± 0.049	0.473 ± 0.051	0.603 ± 0.142	0.602 ± 0.142	0.352 ± 0.107	0.389 ± 0.118
ecoli - 0 - 1 - 4 - 7 - vs - 5 - 6	0.669 ± 0.203	0.812 ± 0.171	0.860 ± 0.149	0.839 ± 0.171	0.845 ± 0.166	0.856 ± 0.092	0.853 ± 0.093
yeast-2-vs-8	0.518 ± 0.136	0.636 ± 0.094	0.736 ± 0.176	0.728 ± 0.153	0.728 ± 0.153	$0.506 \stackrel{1}{\pm} 0.161$	$0.482 \stackrel{1}{\pm} 0.142$
$yeast \hbox{-} 0 \hbox{-} 2 \hbox{-} 5 \hbox{-} 7 \hbox{-} 9 \hbox{-} vs \hbox{-} 3 \hbox{-} 6 \hbox{-} 8$	0.398 ± 0.065	0.301 ± 0.068	0.810 ± 0.134	0.897 ± 0.037	0.899 ± 0.037	0.498 ± 0.096	0.592 ± 0.218
glass2	0.570 ± 0.109	0.570 ± 0.110	0.627 ± 0.145	0.732 ± 0.113	0.731 ± 0.113	0.583 ± 0.071	0.572 ± 0.071
	<u> </u>	_	1,2,6,7	1,2,3,6,7	1,2,3,6,7	7	<u> </u>

Table 11: Results for GMEAN metric

	GNB (1)	OSB (2)	OKNORAU (3)	TBAC (4)	OTBAC (5)	TBAW (6)	OTBAW (7)
Mean rank	2.756	3.134	5.427	4.963	5.280	3.415	3.024
	_	_	1,2,6,7	1,2,6,7	1,2,6,7	_	_

Table 12: Results for mean ranks according to GMEAN metric