Dataset	GNB (1)	OSB (2)	OKNORAU (3)	TBAC (4)	OTBAC (5)	TBAW (6)	OTBAW (7)
glass4	0.572 ± 0.129	0.771 ± 0.138	0.778 ± 0.139	0.764 ± 0.160	0.802 ± 0.157	0.732 ± 0.157	0.779 ± 0.161
ecoli-0-2-3-4-vs-5	0.780 ± 0.098	$0.777 \stackrel{1}{\pm} 0.117$	0.873 ± 0.092	0.902 ± 0.078	0.900 ± 0.079	$0.898 \stackrel{1}{\pm} 0.079$	0.893 ± 0.080
glass-0-1-6-vs-2	0.565 ± 0.111	0.593 ± 0.096	0.587 ± 0.128	0.698 ± 0.127	0.709 ± 0.115	0.601 ± 0.127	0.628 ± 0.122
ecoli-0-1-vs-5	0.800 ± 0.143	0.830 ± 0.152	0.891 ± 0.088	0.893 ± 0.080	0.895 ± 0.082	$0.893 \stackrel{1}{\pm} 0.080$	0.900 ± 0.076
yeast-1-4-5-8-vs-7	0.544 ± 0.012	$0.544 \stackrel{1}{\pm} 0.022$	0.574 ± 0.045	0.629 ± 0.098	0.628 ± 0.098	0.588 ± 0.071	0.592 ± 0.079
ecoli4	0.886 ± 0.083	0.891 ± 0.068	0.922 ± 0.079	0.933 ± 0.082	0.934 ± 0.080	0.932 ± 0.079	0.932 ± 0.077
led7digit-0-2-4-5-6-7-8-9-vs-1	0.853 ± 0.073	0.859 ± 0.067	0.876 ± 0.070	0.654 ± 0.090	0.653 ± 0.090	0.859 ± 0.118	0.852 ± 0.123
glass5	0.948 ± 0.103	0.915 ± 0.149	0.915 ± 0.149	0.908 ± 0.155	0.908 ± 0.155	0.908 ± 0.155	0.908 ± 0.154
ecoli-0-3-4-6-vs-5	0.755 ± 0.102	0.797 ± 0.121	0.884 ± 0.110	0.898 ± 0.090	0.900 ± 0.090	0.896 ± 0.094	0.891 ± 0.097
yeast - 0 - 5 - 6 - 7 - 9 - vs - 4	0.501 ± 0.026	$0.502 \stackrel{1}{\pm} 0.022$	0.612 ± 0.146	0.794 ± 0.049	0.805 ± 0.049	0.708 ± 0.119	0.714 ± 0.129
yeast6	0.636 ± 0.023	0.653 ± 0.044	0.722 ± 0.072	0.885 ± 0.056	0.885 ± 0.056	0.857 ± 0.068	0.870 ± 0.062
ecoli-0-6-7-vs-5	0.813 ± 0.124	0.834 ± 0.111	0.870 ± 0.112	0.869 ± 0.093	0.874 ± 0.096	0.860 ± 0.091	0.863 ± 0.099
$glass\hbox{-} 0\hbox{-} 1\hbox{-} 6\hbox{-} vs\hbox{-} 5$	0.956 ± 0.109	0.920 ± 0.142	0.920 ± 0.142	0.886 ± 0.150	0.886 ± 0.150	0.886 ± 0.150	0.886 ± 0.150
ecoli-0-1-3-7-vs-2-6	0.831 ± 0.193	0.844 ± 0.198	0.845 ± 0.199	0.847 ± 0.203	0.844 ± 0.203	0.843 ± 0.202	0.842 ± 0.202
yeast - 0 - 2 - 5 - 6 - vs - 3 - 7 - 8 - 9	0.675 ± 0.048	$0.767 \stackrel{1}{\pm} 0.058$	$0.769 \stackrel{1}{\pm} 0.048$	0.694 ± 0.056	$0.772 \stackrel{1}{\pm} 0.053$	$0.651 \stackrel{1}{\pm} 0.049$	$0.738 \stackrel{1}{\pm} 0.069$
ecoli-0-1-4-7-vs-5-6	0.742 ± 0.131	0.816 ± 0.131	0.862 ± 0.112	0.838 ± 0.104	0.871 ± 0.104	0.846 ± 0.090	0.892 ± 0.081
yeast5	0.825 ± 0.024	$0.798 \stackrel{1}{\pm} 0.035$	0.841 ± 0.029	0.975 ± 0.021	0.976 ± 0.020	0.973 ± 0.025	0.973 ± 0.027
shuttle- $c2$ - vs - $c4$	$0.988 \stackrel{2}{\pm} 0.022$	0.937 ± 0.154	0.938 ± 0.154	0.915 ± 0.184	0.920 ± 0.176	0.912 ± 0.184	0.917 ± 0.176
ecoli-0-1-4-7-vs-2-3-5-6	0.651 ± 0.090	0.661 ± 0.120	0.713 ± 0.126	0.689 ± 0.118	$0.769 \stackrel{6}{\pm} 0.129$	0.728 ± 0.115	0.794 ± 0.123
yeast - 0 - 3 - 5 - 9 - vs - 7 - 8	0.550 ± 0.018	0.545 ± 0.037	0.606 ± 0.084	0.695 ± 0.073	0.698 ± 0.075	0.628 ± 0.076	0.653 ± 0.087
yeast-1-vs-7	0.594 ± 0.037	0.581 ± 0.047	0.648 ± 0.094	0.680 ± 0.100	0.674 ± 0.096	0.650 ± 0.078	0.659 ± 0.086
yeast-1-2-8-9-vs-7	0.540 ± 0.011	0.538 ± 0.024	0.573 ± 0.054	0.687 ± 0.090	0.687 ± 0.089	0.613 ± 0.068	0.626 ± 0.078
ecoli- 0 - 1 - 4 - 6 - vs - 5	0.847 ± 0.098	0.881 ± 0.088	0.892 ± 0.090	0.899 ± 0.080	0.905 ± 0.078	0.894 ± 0.082	0.899 ± 0.084
$glass\hbox{-} 0\hbox{-} 1\hbox{-} 5\hbox{-} vs\hbox{-} 2$	0.555 ± 0.134	0.527 ± 0.112	0.578 ± 0.135	$1,2,3,6,7 \\ 0.685 \pm 0.115$	0.700 ± 0.117	0.581 ± 0.105	0.594 ± 0.106
yeast-2-vs-4	$0.608 \stackrel{2}{\pm} 0.128$	0.556 ± 0.098	$0.750 \stackrel{2}{\pm} 0.171$	0.868 ± 0.066	0.870 ± 0.060	$0.836 \stackrel{2}{\pm} 0.091$	0.843 ± 0.098
$glass\hbox{-} 0\hbox{-} 6\hbox{-} vs\hbox{-} 5$	$0.945 \stackrel{2}{\pm} 0.140$	0.936 ± 0.136	0.936 ± 0.136	0.875 ± 0.175	0.875 ± 0.175	0.875 ± 0.175	0.875 ± 0.174
glass2	0.607 ± 0.098	0.624 ± 0.094	0.614 ± 0.124	0.718 ± 0.115	0.738 ± 0.116	0.635 ± 0.115	0.660 ± 0.095
yeast-2-vs-8	0.637 ± 0.090	0.640 ± 0.096	0.765 ± 0.086	0.782 ± 0.111	0.799 ± 0.105	0.772 ± 0.098	0.784 ± 0.096
vowel0	0.915 ± 0.037	0.902 ± 0.026	0.916 ± 0.025	0.887 ± 0.058	0.930 ± 0.048	0.881 ± 0.054	0.903 ± 0.043
$glass\hbox{-}0\hbox{-}4\hbox{-}vs\hbox{-}5$	0.975 ± 0.083	0.940 ± 0.112	$\begin{array}{c} 2,4,6,7 \\ 0.940 \pm 0.112 \end{array}$	0.935 ± 0.120	0.940 ± 0.117	0.935 ± 0.120	$0.940 \stackrel{6}{\pm} 0.117$
$glass\hbox{-}0\hbox{-}1\hbox{-}4\hbox{-}6\hbox{-}vs\hbox{-}2$	0.579 ± 0.128	0.592 ± 0.131	0.594 ± 0.146	0.695 ± 0.118	0.721 ± 0.106	0.628 ± 0.115	0.642 ± 0.094
yeast4	0.551 ± 0.039	0.530 ± 0.030	0.561 ± 0.047	0.811 ± 0.065	$\begin{array}{c} 1,2,3,6,7\\ 0.812 \pm 0.064\\ 1,2,3,6,7 \end{array}$	0.675 ± 0.102	0.667 ± 0.119
ecoli- 0 - 4 - 6 - vs - 5	0.851 ± 0.114	0.873 ± 0.107	0.892 ± 0.101	0.901 ± 0.083	0.899 ± 0.083	0.896 ± 0.087	0.900 ± 0.084
page-blocks-1-3-vs-4	0.765 ± 0.095	0.776 ± 0.104	0.817 ± 0.127	0.754 ± 0.092	0.779 ± 0.108	0.757 ± 0.092	0.756 ± 0.091
$yeast\hbox{-}0\hbox{-}2\hbox{-}5\hbox{-}7\hbox{-}9\hbox{-}vs\hbox{-}3\hbox{-}6\hbox{-}8$	0.576 ± 0.028	0.541 ± 0.052	0.641 ± 0.131	0.886 ± 0.032	0.886 ± 0.033	0.831 ± 0.088	0.881 ± 0.055
ecoli- 0 - 1 - vs - 2 - 3 - 5	0.607 ± 0.157	0.605 ± 0.156	0.752 ± 0.163	0.719 ± 0.136	0.778 ± 0.159	0.765 ± 0.130	0.820 ± 0.134
ecoli-0-6-7-vs-3-5	0.587 ± 0.158	0.620 ± 0.167	0.618 ± 0.168	0.586 ± 0.121	0.677 ± 0.122	0.600 ± 0.130	0.650 ± 0.148
ecoli - 0 - 3 - 4 - 7 - vs - 5 - 6	0.778 ± 0.080	0.833 ± 0.127	0.885 ± 0.084	0.872 ± 0.080	0.884 ± 0.077	0.883 ± 0.086	0.892 ± 0.075
ecoli - 0 - 2 - 6 - 7 - vs - 3 - 5	0.586 ± 0.145	0.617 ± 0.158	0.626 ± 0.154	0.599 ± 0.118	0.693 ± 0.108	0.596 ± 0.121	0.656 ± 0.140
shuttle-c0-vs-c4	0.990 ± 0.012	0.989 ± 0.012	0.989 ± 0.012	0.992 ± 0.012	0.992 ± 0.012	0.992 ± 0.012	0.992 ± 0.012
ecoli-0-3-4-vs-5	0.788 ± 0.105	0.803 ± 0.128	0.890 ± 0.109	0.908 ± 0.104	0.907 ± 0.104	0.903 ± 0.102	0.901 ± 0.102
	<u> </u>	_	1,2	1,2,3,6,7	1,2,3,7	1,2,3	1,2,3

Table 1: Results for BAC metric

	$\mid \text{GNB (1)} \mid \text{OSB (2)} \mid \text{OKNORAU (3)} \mid \text{TBAC (4)} \mid \text{OTBAC (5)} \mid \text{TBAW (6)} \mid \text{OTBAW (7)}$									
Mean rank	2.317	2.634	3.963	4.720	5.976	3.671	4.720			
	_	_	1,2	1,2,6	all	1,2	1,2,6			

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)
glass4	0.190 ± 0.222	0.395 ± 0.190	0.451 ± 0.204	0.470 ± 0.236	0.513 ± 0.218	0.400 ± 0.208	0.459 ± 0.224
ecoli- 0 - 2 - 3 - 4 - vs - 5	0.442 ± 0.170	$0.492 \stackrel{1}{\pm} 0.237$	0.682 ± 0.199	0.796 ± 0.127	0.779 ± 0.132	0.771 ± 0.132	0.748 ± 0.144
glass-0-1-6-vs-2	0.184 ± 0.057	0.196 ± 0.050	0.197 ± 0.070	0.293 ± 0.106	0.300 ± 0.099	0.202 ± 0.074	0.222 ± 0.085
ecoli-0-1- vs -5	0.667 ± 0.299	0.682 ± 0.285	$0.819 \stackrel{1}{\pm} 0.127$	0.857 ± 0.110	0.858 ± 0.115	$0.855 \stackrel{1}{\pm} 0.110$	0.862 ± 0.110
yeast-1-4-5-8-vs-7	0.090 ± 0.002	0.090 ± 0.004	0.097 ± 0.009	0.144 ± 0.052	0.143 ± 0.052	0.111 ± 0.036	0.115 ± 0.042
ecoli4	0.454 ± 0.158	0.449 ± 0.135	0.653 ± 0.208	0.798 ± 0.169	0.764 ± 0.161	0.759 ± 0.176	0.724 ± 0.171
led7 digit - 0 - 2 - 4 - 5 - 6 - 7 - 8 - 9 - vs - 1	0.553 ± 0.117	0.532 ± 0.103	0.630 ± 0.152	0.389 ± 0.173	0.386 ± 0.173	0.579 ± 0.176	0.561 ± 0.172
glass5	0.747 ± 0.183	$0.721 \overset{4,5}{\pm} 0.256$	0.721 ± 0.256	0.809 ± 0.278	0.809 ± 0.278	0.809 ± 0.278	0.805 ± 0.276
ecoli-0-3-4-6-vs-5	0.384 ± 0.145	0.467 ± 0.189	0.697 ± 0.211	0.768 ± 0.154	0.765 ± 0.152	0.761 ± 0.169	0.745 ± 0.175
yeast - 0 - 5 - 6 - 7 - 9 - vs - 4	0.176 ± 0.008	$0.176 \stackrel{1}{\pm} 0.007$	0.268 ± 0.131	0.443 ± 0.074	0.444 ± 0.076	0.364 ± 0.126	0.354 ± 0.119
yeast6	0.063 ± 0.004	0.067 ± 0.009	0.093 ± 0.032	0.368 ± 0.050	0.365 ± 0.052	0.274 ± 0.125	0.297 ± 0.122
ecoli-0-6-7-vs-5	0.610 ± 0.231	$0.518 \stackrel{1}{\pm} 0.166$	0.662 ± 0.207	$0.741 \stackrel{all}{\pm} 0.156$	0.731 ± 0.155	0.699 ± 0.162	0.690 ± 0.173
$glass\hbox{-} 0\hbox{-} 1\hbox{-} 6\hbox{-} vs\hbox{-} 5$	$0.807 \stackrel{2}{\pm} 0.227$	0.798 ± 0.259	0.798 ± 0.259	0.776 ± 0.267	0.776 ± 0.267	0.776 ± 0.267	0.776 ± 0.267
ecoli-0-1-3-7-vs-2-6	0.421 ± 0.251	0.593 ± 0.344	0.615 ± 0.357	0.696 ± 0.380	0.659 ± 0.370	0.618 ± 0.358	0.609 ± 0.357
yeast - 0 - 2 - 5 - 6 - vs - 3 - 7 - 8 - 9	0.466 ± 0.094	$0.586 \stackrel{1}{\pm} 0.090$	$0.592 \stackrel{1}{\pm} 0.076$	0.512 ± 0.112	$0.618 \overset{1,2}{\pm} 0.087$	$0.428 \stackrel{1}{\pm} 0.102$	0.566 ± 0.115
ecoli-0-1-4-7-vs-5-6	$0.590 \stackrel{6}{\pm} 0.239$	0.645 ± 0.223	0.735 ± 0.189	0.752 ± 0.180	$0.776 \stackrel{all}{\pm} 0.182$	0.752 ± 0.140	0.789 ± 0.141
yeast5	0.152 ± 0.019	$0.136 \stackrel{1}{\pm} 0.022$	0.168 ± 0.028	0.613 ± 0.067	0.614 ± 0.067	$0.605 \stackrel{1,2}{\pm} 0.088$	0.606 ± 0.091
shuttle- $c2$ - vs - $c4$	0.881 ± 0.211	0.866 ± 0.312	0.868 ± 0.309	0.833 ± 0.366	0.847 ± 0.347	0.789 ± 0.363	0.803 ± 0.345
ecoli-0-1-4-7-vs-2-3-5-6	0.426 ± 0.208	0.432 ± 0.240	0.533 ± 0.233	0.500 ± 0.242	0.645 ± 0.231	0.574 ± 0.213	0.656 ± 0.207
$yeast\hbox{-}0\hbox{-}3\hbox{-}5\hbox{-}9\hbox{-}vs\hbox{-}7\hbox{-}8$	0.196 ± 0.006	0.200 ± 0.044	0.269 ± 0.119	0.365 ± 0.094	0.362 ± 0.101	0.300 ± 0.110	0.321 ± 0.114
yeast-1-vs-7	0.148 ± 0.011	0.144 ± 0.015	0.190 ± 0.064	0.236 ± 0.077	0.228 ± 0.066	0.188 ± 0.060	0.193 ± 0.055
yeast-1-2-8-9- vs -7	0.066 ± 0.001	0.066 ± 0.003	0.072 ± 0.008	0.170 ± 0.058	0.170 ± 0.058	0.102 ± 0.051	0.114 ± 0.059
ecoli-0-1-4-6-vs-5	0.652 ± 0.214	0.626 ± 0.173	0.712 ± 0.180	0.805 ± 0.113	0.798 ± 0.111	0.775 ± 0.121	0.767 ± 0.136
$glass\hbox{-}0\hbox{-}1\hbox{-}5\hbox{-}vs\hbox{-}2$	0.200 ± 0.081	0.184 ± 0.058	0.215 ± 0.099	0.294 ± 0.099	0.304 ± 0.098	0.212 ± 0.064	0.220 ± 0.069
yeast-2- vs -4	0.301 ± 0.222	0.221 ± 0.112	0.491 ± 0.243	0.724 ± 0.112	0.702 ± 0.100	$0.643 \stackrel{2}{\pm} 0.190$	0.625 ± 0.158
$glass\hbox{-} 0\hbox{-} 6\hbox{-} vs\hbox{-} 5$	0.867 ± 0.273	0.868 ± 0.249	0.868 ± 0.249	0.793 ± 0.325	0.793 ± 0.325	0.793 ± 0.325	0.789 ± 0.324
glass2	0.186 ± 0.050	0.194 ± 0.048	0.194 ± 0.068	0.304 ± 0.105	0.321 ± 0.112	0.201 ± 0.062	0.213 ± 0.058
yeast-2- vs -8	0.193 ± 0.205	0.179 ± 0.172	0.357 ± 0.191	0.633 ± 0.195	0.629 ± 0.178	0.587 ± 0.234	0.495 ± 0.220
vowel0	0.720 ± 0.049	0.588 ± 0.036	0.628 ± 0.035	0.806 ± 0.077	0.812 ± 0.065	0.743 ± 0.079	0.653 ± 0.060
$glass\hbox{-} 0\hbox{-} 4\hbox{-} vs\hbox{-} 5$	0.925 ± 0.170	0.879 ± 0.187	0.879 ± 0.187	0.907 ± 0.189	0.913 ± 0.186	0.907 ± 0.189	0.913 ± 0.186
$glass\hbox{-}0\hbox{-}1\hbox{-}4\hbox{-}6\hbox{-}vs\hbox{-}2$	0.177 ± 0.060	0.182 ± 0.056	0.186 ± 0.073	0.288 ± 0.102	0.308 ± 0.093	0.213 ± 0.074	0.220 ± 0.069
yeast4	0.074 ± 0.006	0.070 ± 0.005	$0.076 \stackrel{1}{\pm} 0.008$	1,2,3,6,7 0.324 ± 0.054	0.323 ± 0.054	0.166 ± 0.116	0.174 ± 0.121
ecoli-0-4-6- vs -5	0.670 ± 0.212	0.650 ± 0.184	0.742 ± 0.200	0.784 ± 0.143	0.775 ± 0.143	0.768 ± 0.153	0.768 ± 0.144
page-blocks-1-3-vs-4	0.502 ± 0.143	0.489 ± 0.149	0.538 ± 0.167	0.539 ± 0.157	0.554 ± 0.165	0.534 ± 0.151	0.513 ± 0.144
yeast - 0 - 2 - 5 - 7 - 9 - vs - 3 - 6 - 8	0.206 ± 0.012	0.198 ± 0.055	0.307 ± 0.195	0.642 ± 0.094	0.623 ± 0.082	0.544 ± 0.201	0.620 ± 0.105
ecoli-0-1- vs -2-3-5	0.267 ± 0.338	0.258 ± 0.332	0.598 ± 0.328	0.550 ± 0.310	0.646 ± 0.327	0.645 ± 0.252	0.733 ± 0.245
ecoli-0-6-7- vs -3-5	0.202 ± 0.307	0.260 ± 0.296	0.254 ± 0.297	0.226 ± 0.279	0.452 ± 0.238	0.256 ± 0.272	0.355 ± 0.281
ecoli - 0 - 3 - 4 - 7 - vs - 5 - 6	0.414 ± 0.114	$0.563 \stackrel{1}{\pm} 0.198$	0.714 ± 0.155	0.747 ± 0.125	0.753 ± 0.121	0.744 ± 0.148	0.741 ± 0.147
ecoli - 0 - 2 - 6 - 7 - vs - 3 - 5	0.216 ± 0.296	$0.269 \stackrel{1}{\pm} 0.284$	0.296 ± 0.279	0.265 ± 0.275	0.489 ± 0.201	0.254 ± 0.263	0.380 ± 0.254
shuttle-c0-vs-c4	0.978 ± 0.022	0.976 ± 0.021	0.976 ± 0.021	0.992 ± 0.013	0.992 ± 0.013	0.992 ± 0.013	0.992 ± 0.013
ecoli-0-3-4-vs-5	0.443 ± 0.172	0.489 ± 0.211	0.720 ± 0.189	0.797 ± 0.165	0.793 ± 0.162	0.769 ± 0.168	0.749 ± 0.167
ecoli-0-3-4-vs-5	0.443 ± 0.172	0.489 ± 0.211 ₁	$0.720 \pm 0.189 \\ 1,2$	$0.797 \pm 0.165 \\ 1,2,3,6,7$	$\begin{array}{c c} 0.793 \pm 0.162 \\ 1,2,3,7 \end{array}$	$\begin{array}{c c} 0.769 \pm 0.168 \\ 1,2,3 \end{array}$	$\begin{array}{c c} 0.749 \pm 0.167 \\ & 1,2 \end{array}$

Table 3: Results for F1 metric

	GNB (1)	OSB (2)	OKNORAU (3)	TBAC (4)	OTBAC (5)	TBAW (6)	OTBAW (7)
Mean rank	2.146	2.085	3.500	5.549	5.963	4.159	4.598
	_	_	1,2	1,2,3,6,7	1,2,3,6,7	1,2,3	1,2,3

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)
glass4	0.207 ± 0.281	0.311 ± 0.196	0.383 ± 0.211	0.434 ± 0.248	0.455 ± 0.222	0.365 ± 0.233	0.391 ± 0.220
ecoli-0-2-3-4-vs-5	0.337 ± 0.200	0.427 ± 0.282	0.618 ± 0.257	0.790 ± 0.179	0.760 ± 0.187	0.746 ± 0.184	0.710 ± 0.198
glass-0-1-6-vs-2	0.106 ± 0.034	0.111 ± 0.030	0.115 ± 0.043	$0.188 \stackrel{all}{\pm} 0.073$	0.192 ± 0.069	0.119 ± 0.047	0.132 ± 0.057
ecoli-0-1-vs-5	0.785 ± 0.364	0.730 ± 0.312	$0.879 \stackrel{1}{\pm} 0.145$	0.963 ± 0.094	0.957 ± 0.103	$0.961 \stackrel{1}{\pm} 0.100$	0.952 ± 0.116
yeast-1-4-5-8-vs-7	0.047 ± 0.001	0.047 ± 0.002	$0.051 \stackrel{2}{\pm} 0.005$	0.084 ± 0.031	0.084 ± 0.031	0.061 ± 0.022	0.064 ± 0.026
ecoli4	0.315 ± 0.155	0.306 ± 0.135	0.538 ± 0.241	0.752 ± 0.214	0.692 ± 0.207	0.696 ± 0.230	0.638 ± 0.218
$led 7 digit \hbox{-} 0 \hbox{-} 2 \hbox{-} 4 \hbox{-} 5 \hbox{-} 6 \hbox{-} 7 \hbox{-} 8 \hbox{-} 9 \hbox{-} vs \hbox{-} 1$	0.428 ± 0.117	0.395 ± 0.099	$0.533 \stackrel{1,2}{\pm} 0.200$	0.510 ± 0.245	0.490 ± 0.238	0.484 ± 0.175	0.469 ± 0.158
glass5	0.655 ± 0.213	0.660 ± 0.272	0.660 ± 0.272	$0.850 \stackrel{2}{\pm} 0.292$	$0.850 \stackrel{2}{\pm} 0.292$	$0.850 \stackrel{2}{\pm} 0.292$	$0.843 \stackrel{2}{\pm} 0.293$
ecoli-0-3-4-6-vs-5	0.274 ± 0.157	0.350 ± 0.189	0.621 ± 0.245	0.734 ± 0.186	0.725 ± 0.185	0.722 ± 0.205	0.701 ± 0.209
yeast - 0 - 5 - 6 - 7 - 9 - vs - 4	0.097 ± 0.005	$0.097 \stackrel{1}{\pm} 0.004$	0.168 ± 0.105	0.321 ± 0.091	0.311 ± 0.081	0.264 ± 0.125	0.238 ± 0.099
yeast6	0.032 ± 0.002	0.035 ± 0.005	$0.050 \stackrel{1,2}{\pm} 0.018$	0.238 ± 0.038	0.235 ± 0.040	0.171 ± 0.089	0.187 ± 0.086
ecoli-0- 6 - 7 - vs - 5	0.597 ± 0.279	$0.402 \stackrel{1}{\pm} 0.181$	$0.590 \stackrel{1,2}{\pm} 0.241$	$0.745 \stackrel{all}{\pm} 0.196$	0.715 ± 0.193	0.680 ± 0.215	0.655 ± 0.214
$glass\hbox{-}0\hbox{-}1\hbox{-}6\hbox{-}vs\hbox{-}5$	0.756 ± 0.272	0.797 ± 0.285	$0.797 \stackrel{2}{\pm} 0.285$	0.827 ± 0.286	0.827 ± 0.286	0.827 ± 0.286	0.827 ± 0.286
ecoli-0-1-3-7-vs-2-6	0.353 ± 0.279	0.570 ± 0.372	0.610 ± 0.389	0.733 ± 0.401	0.672 ± 0.397	0.618 ± 0.394	0.606 ± 0.394
yeast - 0 - 2 - 5 - 6 - vs - 3 - 7 - 8 - 9	0.643 ± 0.115	$0.611 \stackrel{1}{\pm} 0.079$	0.616 ± 0.089	0.719 ± 0.111	0.682 ± 0.092	0.692 ± 0.131	$0.677 \stackrel{1}{\pm} 0.098$
ecoli - 0 - 1 - 4 - 7 - vs - 5 - 6	$0.838 \stackrel{2}{\pm} 0.239$	0.686 ± 0.243	0.763 ± 0.213	0.876 ± 0.181	0.832 ± 0.194	0.840 ± 0.160	0.804 ± 0.178
yeast5	0.082 ± 0.011	0.073 ± 0.013	$0.092 \stackrel{2}{\pm} 0.017$	0.448 ± 0.068	0.448 ± 0.068	0.441 ± 0.083	0.441 ± 0.084
shuttle- $c2$ - vs - $c4$	0.840 ± 0.277	0.872 ± 0.320	0.875 ± 0.316	0.840 ± 0.366	0.860 ± 0.346	0.773 ± 0.375	0.793 ± 0.359
ecoli - 0 - 1 - 4 - 7 - vs - 2 - 3 - 5 - 6	0.778 ± 0.304	0.757 ± 0.319	0.812 ± 0.252	0.855 ± 0.289	0.910 ± 0.160	0.855 ± 0.213	0.783 ± 0.223
$yeast\hbox{-}0\hbox{-}3\hbox{-}5\hbox{-}9\hbox{-}vs\hbox{-}7\hbox{-}8$	0.109 ± 0.003	0.122 ± 0.082	0.207 ± 0.152	0.341 ± 0.177	0.309 ± 0.153	0.351 ± 0.268	0.312 ± 0.216
yeast-1-vs-7	0.080 ± 0.006	0.078 ± 0.008	0.110 ± 0.042	0.149 ± 0.053	0.141 ± 0.041	0.110 ± 0.050	0.112 ± 0.036
$yeast\hbox{-} 1\hbox{-} 2\hbox{-} 8\hbox{-} 9\hbox{-} vs\hbox{-} 7$	0.034 ± 0.000	0.034 ± 0.001	0.037 ± 0.004	0.102 ± 0.035	0.102 ± 0.035	0.057 ± 0.034	0.066 ± 0.038
ecoli-0-1-4-6- vs -5	0.624 ± 0.271	0.530 ± 0.214	0.661 ± 0.236	0.833 ± 0.157	0.804 ± 0.161	0.781 ± 0.171	0.746 ± 0.180
$glass\hbox{-} 0\hbox{-} 1\hbox{-} 5\hbox{-} vs\hbox{-} 2$	$0.119 \stackrel{2}{\pm} 0.052$	0.105 ± 0.034	0.132 ± 0.075	0.189 ± 0.068	0.194 ± 0.068	0.124 ± 0.040	0.129 ± 0.046
yeast-2-vs-4	0.235 ± 0.270	0.134 ± 0.103	0.400 ± 0.242	0.708 ± 0.169	0.649 ± 0.136	0.604 ± 0.245	0.541 ± 0.174
$glass\hbox{-} 0\hbox{-} 6\hbox{-} vs\hbox{-} 5$	0.853 ± 0.284	0.887 ± 0.254	0.887 ± 0.254	0.880 ± 0.324	0.880 ± 0.324	0.880 ± 0.324	0.873 ± 0.325
glass2	0.106 ± 0.029	0.110 ± 0.028	0.112 ± 0.040	0.199 ± 0.077	0.210 ± 0.084	0.115 ± 0.038	0.122 ± 0.037
yeast-2-vs-8	0.171 ± 0.241	0.145 ± 0.199	0.309 ± 0.236	0.822 ± 0.253	0.735 ± 0.253	0.739 ± 0.319	0.518 ± 0.310
vowel0	0.610 ± 0.063	0.432 ± 0.038	0.474 ± 0.040	0.836 ± 0.081	0.751 ± 0.069	0.703 ± 0.086	0.519 ± 0.065
$glass\hbox{-} 0\hbox{-} 4\hbox{-} vs\hbox{-} 5$	0.913 ± 0.195	0.913 ± 0.195	0.913 ± 0.195	0.980 ± 0.139	0.980 ± 0.139	0.980 ± 0.139	0.980 ± 0.139
$glass\hbox{-} 0\hbox{-} 1\hbox{-} 4\hbox{-} 6\hbox{-} vs\hbox{-} 2$	0.101 ± 0.034	0.103 ± 0.032	0.107 ± 0.043	0.186 ± 0.070	0.198 ± 0.065	0.127 ± 0.054	0.132 ± 0.053
yeast4	0.038 ± 0.003	0.037 ± 0.002	0.039 ± 0.004	0.210 ± 0.036	0.210 ± 0.037	0.101 ± 0.082	0.107 ± 0.083
ecoli-0-4-6- vs -5	0.621 ± 0.241	0.545 ± 0.190	0.695 ± 0.244	0.755 ± 0.177	0.740 ± 0.178	0.731 ± 0.184	0.723 ± 0.175
page-blocks-1-3-vs-4	0.468 ± 0.156	0.431 ± 0.159	0.465 ± 0.159	0.570 ± 0.174	0.552 ± 0.169	0.550 ± 0.166	0.507 ± 0.163
yeast - 0 - 2 - 5 - 7 - 9 - vs - 3 - 6 - 8	$0.115 \stackrel{2}{\pm} 0.007$	0.112 ± 0.045	0.213 ± 0.188	0.529 ± 0.147	0.496 ± 0.121	0.443 ± 0.236	0.493 ± 0.125
ecoli-0-1- vs -2-3-5	0.433 ± 0.470	0.406 ± 0.459	0.791 ± 0.371	0.793 ± 0.399	0.830 ± 0.365	0.873 ± 0.265	0.890 ± 0.234
ecoli-0-6-7- vs -3-5	0.219 ± 0.313	0.290 ± 0.305	0.285 ± 0.305	0.355 ± 0.426	0.736 ± 0.335	0.390 ± 0.405	0.503 ± 0.379
ecoli - 0 - 3 - 4 - 7 - vs - 5 - 6	0.326 ± 0.160	0.486 ± 0.199	0.658 ± 0.181	0.745 ± 0.149	0.731 ± 0.145	0.717 ± 0.168	0.691 ± 0.177
ecoli - 0 - 2 - 6 - 7 - vs - 3 - 5	0.266 ± 0.354	0.329 ± 0.326	0.388 ± 0.342	0.436 ± 0.434	0.773 ± 0.263	0.372 ± 0.380	0.552 ± 0.348
shuttle-c0-vs-c4	0.976 ± 0.038	0.974 ± 0.037	0.974 ± 0.037	1.000 ± 0.000	1.000 ± 0.000	1.000 ± 0.000	1.000 ± 0.000
ecoli-0-3-4-vs-5	0.335 ± 0.202	0.385 ± 0.225	0.663 ± 0.220	0.785 ± 0.180	0.779 ± 0.178	0.737 ± 0.195	0.700 ± 0.185
	I –	1	1,2	1,2,3,6,7	1,2,3,7	1,2,3,7	1,2

Table 5: Results for Precision metric

	GNB (1) OSB (2) OKNORAU (3) TBAC (4) OTBAC (5) TBAW (6) OTBAW (7)									
Mean rank	1.829	1.756	3.220	6.256	5.866	4.720	4.354			
	_	_	1,2	all	1,2,3,6,7	1,2,3	1,2,3			

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)
glass4	0.210 ± 0.244	0.653 ± 0.270	0.633 ± 0.272	0.580 ± 0.320	0.663 ± 0.310	0.537 ± 0.313	0.633 ± 0.316
ecoli- 0 - 2 - 3 - 4 - vs - 5	0.830 ± 0.153	0.795 ± 0.198	0.835 ± 0.146	0.835 ± 0.155	0.835 ± 0.155	0.835 ± 0.155	0.835 ± 0.155
$glass\hbox{-}0\hbox{-}1\hbox{-}6\hbox{-}vs\hbox{-}2$	0.737 ± 0.215	$0.845 \stackrel{-}{\pm} 0.192$	0.742 ± 0.242	0.700 ± 0.236	0.723 ± 0.216	0.765 ± 0.286	0.818 ± 0.254
ecoli-0-1-vs-5	0.620 ± 0.279	0.680 ± 0.304	0.795 ± 0.178	0.790 ± 0.160	0.795 ± 0.163	$0.790 \stackrel{4}{\pm} 0.160$	0.805 ± 0.152
yeast-1-4-5-8- vs -7	1.000 ± 0.000	$0.990 \stackrel{1}{\pm} 0.051$	0.933 ± 0.105	0.513 ± 0.193	0.513 ± 0.193	$0.760 \stackrel{1}{\pm} 0.243$	0.740 ± 0.252
ecoli4	0.940 ± 0.106	0.945 ± 0.103	0.920 ± 0.116	0.890 ± 0.159	$0.900 \stackrel{-}{\pm} 0.158$	0.900 ± 0.158	0.910 ± 0.156
$led 7 digit \hbox{-} 0 \hbox{-} 2 \hbox{-} 4 \hbox{-} 5 \hbox{-} 6 \hbox{-} 7 \hbox{-} 8 \hbox{-} 9 \hbox{-} vs \hbox{-} 1$	0.816 ± 0.137	0.845 ± 0.118	0.836 ± 0.127	0.342 ± 0.177	0.342 ± 0.177	0.807 ± 0.251	0.795 ± 0.268
glass5	0.920 ± 0.208	0.850 ± 0.304	0.850 ± 0.304	0.820 ± 0.312	0.820 ± 0.312	0.820 ± 0.312	0.820 ± 0.312
ecoli-0-3-4-6-vs-5	0.840 ± 0.171	0.855 ± 0.166	0.850 ± 0.173	0.835 ± 0.170	0.840 ± 0.171	0.835 ± 0.170	0.830 ± 0.176
yeast - 0 - 5 - 6 - 7 - 9 - vs - 4	0.969 ± 0.045	0.981 ± 0.038	0.931 ± 0.084	0.785 ± 0.125	0.817 ± 0.102	0.809 ± 0.186	0.860 ± 0.143
yeast6	0.986 ± 0.042	0.977 ± 0.087	0.940 ± 0.107	0.837 ± 0.117	0.837 ± 0.117	0.880 ± 0.100	0.883 ± 0.101
ecoli-0-6-7-vs-5	0.720 ± 0.210	0.835 ± 0.177	0.825 ± 0.182	0.770 ± 0.179	$0.785 \stackrel{-}{\pm} 0.187$	0.770 ± 0.172	0.780 ± 0.184
glass-0-1-6-vs-5	0.930 ± 0.223	0.850 ± 0.287	0.850 ± 0.287	0.780 ± 0.302	0.780 ± 0.302	0.780 ± 0.302	0.780 ± 0.302
ecoli-0-1-3-7-vs-2-6	0.700 ± 0.400	$0.700 \stackrel{-}{\pm} 0.400$	$0.700 \stackrel{-}{\pm} 0.400$	$0.700 \stackrel{-}{\pm} 0.400$	0.700 ± 0.400	$0.700 \stackrel{-}{\pm} 0.400$	0.700 ± 0.400
yeast - 0 - 2 - 5 - 6 - vs - 3 - 7 - 8 - 9	0.372 ± 0.096	0.574 ± 0.120	0.579 ± 0.096	0.405 ± 0.112	0.574 ± 0.107	0.317 ± 0.098	0.504 ± 0.142
ecoli-0-1-4-7-vs-5-6	0.492 ± 0.259	0.660 ± 0.266	0.748 ± 0.222	0.684 ± 0.208	0.756 ± 0.208	0.704 ± 0.179	0.804 ± 0.162
yeast5	0.996 ± 0.031	$0.993 \stackrel{1}{\pm} 0.034$	0.993 ± 0.034	0.989 ± 0.040	0.991 ± 0.037	$0.989 \stackrel{1}{\pm} 0.040$	0.991 ± 0.037
$shuttle\hbox{-} c2\hbox{-} vs\hbox{-} c4$	1.000 ± 0.000	0.880 ± 0.309	0.880 ± 0.309	0.830 ± 0.368	$0.840 \stackrel{-}{\pm} 0.352$	0.830 ± 0.368	0.840 ± 0.352
ecoli - 0 - 1 - 4 - 7 - vs - 2 - 3 - 5 - 6	0.308 ± 0.178	0.330 ± 0.241	0.435 ± 0.255	0.381 ± 0.236	0.543 ± 0.258	0.463 ± 0.231	0.607 ± 0.243
yeast - 0 - 3 - 5 - 9 - vs - 7 - 8	0.992 ± 0.033	0.944 ± 0.151	0.740 ± 0.279	0.568 ± 0.237	0.586 ± 0.227	0.570 ± 0.298	$0.600 \stackrel{all}{\pm} 0.271$
yeast-1-vs-7	0.973 ± 0.077	0.910 ± 0.142	0.783 ± 0.211	0.613 ± 0.203	0.610 ± 0.201	0.813 ± 0.193	$0.790 \stackrel{6}{\pm} 0.204$
yeast-1-2-8-9-vs-7	$1.000 \stackrel{all}{\pm} 0.000$	0.977 ± 0.074	0.933 ± 0.120	0.527 ± 0.177	0.527 ± 0.177	0.777 ± 0.257	0.733 ± 0.264
ecoli- 0 - 1 - 4 - 6 - vs - 5	0.750 ± 0.173	0.840 ± 0.156	0.830 ± 0.169	0.815 ± 0.164	0.830 ± 0.161	0.810 ± 0.170	0.825 ± 0.167
$glass\hbox{-} 0\hbox{-} 1\hbox{-} 5\hbox{-} vs\hbox{-} 2$	0.675 ± 0.253	$0.750 \stackrel{1}{\pm} 0.234$	$0.680 \stackrel{1}{\pm} 0.256$	$0.695 \stackrel{1}{\pm} 0.242$	$0.732 \stackrel{1}{\pm} 0.242$	$0.787 \stackrel{1}{\pm} 0.231$	$0.837 \stackrel{1}{\pm} 0.222$
yeast-2-vs-4	0.921 ± 0.100	0.958 ± 0.061	0.863 ± 0.112	0.779 ± 0.137	0.794 ± 0.124	0.794 ± 0.131	0.812 ± 0.126
$glass\hbox{-} 0\hbox{-} 6\hbox{-} vs\hbox{-} 5$	0.900 ± 0.282	0.880 ± 0.274	0.880 ± 0.274	0.750 ± 0.350	0.750 ± 0.350	0.750 ± 0.350	$0.750 \stackrel{4}{\pm} 0.350$
glass2	0.773 ± 0.200	0.825 ± 0.192	0.737 ± 0.242	0.683 ± 0.222	0.725 ± 0.216	0.837 ± 0.209	0.887 ± 0.168
yeast-2-vs-8	$0.890 \stackrel{4}{\pm} 0.218$	0.870 ± 0.207	0.690 ± 0.221	0.575 ± 0.225	0.615 ± 0.213	0.595 ± 0.217	0.645 ± 0.229
vowel0	$\begin{array}{c} 3,4,5,6,7 \\ 0.889 \pm 0.081 \end{array}$	0.929 ± 0.059	0.938 ± 0.057	0.790 ± 0.119	0.891 ± 0.096	0.797 ± 0.107	0.891 ± 0.090
$glass\hbox{-} 0\hbox{-} 4\hbox{-} vs\hbox{-} 5$	0.960 ± 0.168	0.890 ± 0.229	0.890 ± 0.229	0.870 ± 0.241	0.880 ± 0.235	0.870 ± 0.241	0.880 ± 0.235
$glass\hbox{-} 0\hbox{-} 1\hbox{-} 4\hbox{-} 6\hbox{-} vs\hbox{-} 2$	0.745 ± 0.267	$0.797 \stackrel{-}{\pm} 0.270$	$0.738 \stackrel{-}{\pm} 0.293$	0.660 ± 0.232	0.717 ± 0.199	0.788 ± 0.238	0.818 ± 0.213
yeast4	$0.961 \stackrel{4}{\pm} 0.057$	0.971 ± 0.052	0.951 ± 0.065	0.718 ± 0.137	0.722 ± 0.132	0.874 ± 0.152	0.874 ± 0.160
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	0.830 ± 0.161	0.840 ± 0.156
page-blocks-1-3-vs-4	0.576 ± 0.190	$0.608 \stackrel{1}{\pm} 0.210$	0.685 ± 0.257	$0.537 \stackrel{1}{\pm} 0.182$	$0.591 \stackrel{1}{\pm} 0.215$	$0.544 \stackrel{1}{\pm} 0.183$	0.548 ± 0.182
yeast - 0 - 2 - 5 - 7 - 9 - vs - 3 - 6 - 8	0.986 ± 0.031	0.989 ± 0.027	0.953 ± 0.082	0.870 ± 0.079	0.882 ± 0.081	0.882 ± 0.094	0.880 ± 0.077
ecoli-0-1-vs-2-3-5	0.218 ± 0.314	0.215 ± 0.313	0.509 ± 0.321	$0.438 \stackrel{-}{\pm} 0.272$	$0.557 \stackrel{4}{\pm} 0.319$	0.536 ± 0.256	0.646 ± 0.263
ecoli-0-6-7-vs-3-5	0.199 ± 0.320	0.270 ± 0.349	0.266 ± 0.351	$0.185 \overset{1,2}{\pm} 0.247$	0.370 ± 0.250	0.222 ± 0.265	$0.324 \stackrel{all}{\pm} 0.305$
ecoli-0-3-4-7-vs-5-6	0.792 ± 0.236	0.784 ± 0.270	0.832 ± 0.166	0.776 ± 0.163	0.804 ± 0.157	$0.808 \stackrel{-}{\pm} 0.174$	0.836 ± 0.148
ecoli-0-2-6-7-vs-3-5	0.199 ± 0.290	0.266 ± 0.325	$0.282 \stackrel{4}{\pm} 0.315$	0.209 ± 0.240	0.400 ± 0.223	$0.215 \stackrel{-}{\pm} 0.246$	$0.342 \stackrel{4}{\pm} 0.287$
shuttle-c0-vs-c4	0.982 ± 0.025	$0.980 \stackrel{1}{\pm} 0.025$	$0.980 \overset{1,4}{\pm} 0.025$	0.985 ± 0.025	0.985 ± 0.025	0.985 ± 0.025	0.985 ± 0.025
ecoli-0-3-4-vs-5	0.845 ± 0.186	0.820 ± 0.234	0.845 ± 0.205	0.845 ± 0.205	0.845 ± 0.205	0.845 ± 0.199	0.850 ± 0.200
	_	_	_	_	_	_	_

Table 7: Results for Recall metric

	GNB (1)	OSB (2)	OKNORAU (3)	TBAC (4)	OTBAC (5)	TBAW (6)	OTBAW (7)
Mean rank	4.207	5.159	4.902	2.134	3.744	3.329	4.524
	4	4,5,6	4,5,6	_	4	4	4,5,6

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)
glass4	0.572 ± 0.129	0.771 ± 0.138	0.778 ± 0.139	0.764 ± 0.160	0.802 ± 0.157	0.732 ± 0.157	0.779 ± 0.161
ecoli - 0 - 2 - 3 - 4 - vs - 5	0.780 ± 0.098	0.777 ± 0.117	0.873 ± 0.092	0.902 ± 0.078	0.900 ± 0.079	0.898 ± 0.079	0.893 ± 0.080
$glass\hbox{-} 0\hbox{-} 1\hbox{-} 6\hbox{-} vs\hbox{-} 2$	0.565 ± 0.111	0.593 ± 0.096	0.587 ± 0.128	0.698 ± 0.127	0.709 ± 0.115	0.601 ± 0.127	0.628 ± 0.122
ecoli-0-1-vs-5	0.800 ± 0.143	0.830 ± 0.152	0.891 ± 0.088	0.893 ± 0.080	0.895 ± 0.082	$0.893 \stackrel{1}{\pm} 0.080$	0.900 ± 0.076
yeast-1-4-5-8-vs-7	0.544 ± 0.012	$0.544 \stackrel{1}{\pm} 0.022$	0.574 ± 0.045	0.629 ± 0.098	0.628 ± 0.098	0.588 ± 0.071	0.592 ± 0.079
ecoli4	0.886 ± 0.083	0.891 ± 0.068	0.922 ± 0.079	0.933 ± 0.082	0.934 ± 0.080	0.932 ± 0.079	0.932 ± 0.077
$led 7 digit \hbox{-} 0\hbox{-} 2\hbox{-} 4\hbox{-} 5\hbox{-} 6\hbox{-} 7\hbox{-} 8\hbox{-} 9\hbox{-} vs\hbox{-} 1$	0.853 ± 0.073	0.859 ± 0.067	$0.876 \overset{1,2}{\pm} 0.070$	0.654 ± 0.090	0.653 ± 0.090	0.859 ± 0.118	0.852 ± 0.123
glass5	0.948 ± 0.103	0.915 ± 0.149	0.915 ± 0.149	0.908 ± 0.155	0.908 ± 0.155	0.908 ± 0.155	0.908 ± 0.154
ecoli-0-3-4-6- vs -5	0.755 ± 0.102	0.797 ± 0.121	0.884 ± 0.110	0.898 ± 0.090	0.900 ± 0.090	0.896 ± 0.094	0.891 ± 0.097
yeast-0-5-6-7-9-vs-4	0.501 ± 0.026	$0.502 \stackrel{1}{\pm} 0.022$	0.612 ± 0.146	0.794 ± 0.049	0.805 ± 0.049	0.708 ± 0.119	0.714 ± 0.129
yeast6	0.636 ± 0.023	0.653 ± 0.044	$0.722 \stackrel{1,2}{\pm} 0.072$	0.885 ± 0.056	0.885 ± 0.056	0.857 ± 0.068	0.870 ± 0.062
ecoli-0- 6 - 7 - vs - 5	0.813 ± 0.124	$0.834 \stackrel{1}{\pm} 0.111$	$0.870 \stackrel{1,2}{\pm} 0.112$	0.869 ± 0.093	0.874 ± 0.096	0.860 ± 0.091	0.863 ± 0.099
$glass\hbox{-} 0\hbox{-} 1\hbox{-} 6\hbox{-} vs\hbox{-} 5$	0.956 ± 0.109	0.920 ± 0.142	0.920 ± 0.142	0.886 ± 0.150	0.886 ± 0.150	0.886 ± 0.150	0.886 ± 0.150
ecoli - 0 - 1 - 3 - 7 - vs - 2 - 6	0.831 ± 0.193	0.844 ± 0.198	$0.845 \stackrel{-}{\pm} 0.199$	0.847 ± 0.203	0.844 ± 0.203	0.843 ± 0.202	0.842 ± 0.202
yeast - 0 - 2 - 5 - 6 - vs - 3 - 7 - 8 - 9	0.675 ± 0.048	$0.767 \stackrel{1}{\pm} 0.058$	$0.769 \stackrel{1}{\pm} 0.048$	0.694 ± 0.056	$0.772 \stackrel{1}{\pm} 0.053$	$0.651 \stackrel{1}{\pm} 0.049$	$0.738 \stackrel{1}{\pm} 0.069$
ecoli - 0 - 1 - 4 - 7 - vs - 5 - 6	$0.742 \stackrel{6}{\pm} 0.131$	0.816 ± 0.131	0.862 ± 0.112	0.838 ± 0.104	0.871 ± 0.104	0.846 ± 0.090	0.892 ± 0.081
yeast5	0.825 ± 0.024	0.798 ± 0.035	0.841 ± 0.029	0.975 ± 0.021	0.976 ± 0.020	0.973 ± 0.025	0.973 ± 0.027
shuttle-c2-vs-c4	$0.988 \stackrel{2}{\pm} 0.022$	0.937 ± 0.154	0.938 ± 0.154	0.915 ± 0.184	0.920 ± 0.176	0.912 ± 0.184	0.917 ± 0.176
ecoli - 0 - 1 - 4 - 7 - vs - 2 - 3 - 5 - 6	0.651 ± 0.090	0.661 ± 0.120	0.713 ± 0.126	0.689 ± 0.118	$0.769 \stackrel{6}{\pm} 0.129$	0.728 ± 0.115	0.794 ± 0.123
$yeast\hbox{-}0\hbox{-}3\hbox{-}5\hbox{-}9\hbox{-}vs\hbox{-}7\hbox{-}8$	0.550 ± 0.018	0.545 ± 0.037	$0.606 \overset{1,2}{\pm} 0.084$	0.695 ± 0.073	0.698 ± 0.075	0.628 ± 0.076	0.653 ± 0.087
yeast-1-vs-7	0.594 ± 0.037	0.581 ± 0.047	0.648 ± 0.094	0.680 ± 0.100	0.674 ± 0.096	0.650 ± 0.078	0.659 ± 0.086
yeast-1-2-8-9-vs-7	0.540 ± 0.011	0.538 ± 0.024	0.573 ± 0.054	0.687 ± 0.090	0.687 ± 0.089	0.613 ± 0.068	0.626 ± 0.078
ecoli- 0 - 1 - 4 - 6 - vs - 5	0.847 ± 0.098	0.881 ± 0.088	0.892 ± 0.090	0.899 ± 0.080	0.905 ± 0.078	0.894 ± 0.082	0.899 ± 0.084
$glass\hbox{-} 0\hbox{-} 1\hbox{-} 5\hbox{-} vs\hbox{-} 2$	0.555 ± 0.134	0.527 ± 0.112	0.578 ± 0.135	0.685 ± 0.115	0.700 ± 0.117	0.581 ± 0.105	0.594 ± 0.106
yeast-2-vs-4	0.608 ± 0.128	0.556 ± 0.098	0.750 ± 0.171	0.868 ± 0.066	0.870 ± 0.060	0.836 ± 0.091	0.843 ± 0.098
$glass\hbox{-} 0\hbox{-} 6\hbox{-} vs\hbox{-} 5$	0.945 ± 0.140	0.936 ± 0.136	0.936 ± 0.136	0.875 ± 0.175	0.875 ± 0.175	0.875 ± 0.175	0.875 ± 0.174
glass2	0.607 ± 0.098	0.624 ± 0.094	0.614 ± 0.124	0.718 ± 0.115	0.738 ± 0.116	0.635 ± 0.115	0.660 ± 0.095
yeast-2-vs-8	0.637 ± 0.090	0.640 ± 0.096	0.765 ± 0.086	0.782 ± 0.111	0.799 ± 0.105	0.772 ± 0.098	0.784 ± 0.096
vowel0	0.915 ± 0.037	0.902 ± 0.026	0.916 ± 0.025	0.887 ± 0.058	0.930 ± 0.048	0.881 ± 0.054	0.903 ± 0.043
$glass\hbox{-} 0\hbox{-} 4\hbox{-} vs\hbox{-} 5$	0.975 ± 0.083	0.940 ± 0.112	0.940 ± 0.112	$0.935 \stackrel{6}{\pm} 0.120$	0.940 ± 0.117	0.935 ± 0.120	$0.940 \stackrel{6}{\pm} 0.117$
$glass\hbox{-} 0\hbox{-} 1\hbox{-} 4\hbox{-} 6\hbox{-} vs\hbox{-} 2$	0.579 ± 0.128	0.592 ± 0.131	0.594 ± 0.146	0.695 ± 0.118	0.721 ± 0.106	0.628 ± 0.115	0.642 ± 0.094
yeast4	0.551 ± 0.039	0.530 ± 0.030	0.561 ± 0.047	0.811 ± 0.065	0.812 ± 0.064	0.675 ± 0.102	0.667 ± 0.119
$ecoli ext{-}0 ext{-}4 ext{-}6 ext{-}vs ext{-}5$	0.851 ± 0.114	0.873 ± 0.107	0.892 ± 0.101	0.901 ± 0.083	0.899 ± 0.083	0.896 ± 0.087	0.900 ± 0.084
page-blocks-1-3-vs-4	0.765 ± 0.095	0.776 ± 0.104	0.817 ± 0.127	0.754 ± 0.092	0.779 ± 0.108	0.757 ± 0.092	0.756 ± 0.091
yeast - 0 - 2 - 5 - 7 - 9 - vs - 3 - 6 - 8	0.576 ± 0.028	0.541 ± 0.052	0.641 ± 0.131	0.886 ± 0.032	0.886 ± 0.033	0.831 ± 0.088	0.881 ± 0.055
ecoli- 0 - 1 - vs - 2 - 3 - 5	0.607 ± 0.157	0.605 ± 0.156	0.752 ± 0.163	0.719 ± 0.136	0.778 ± 0.159	0.765 ± 0.130	0.820 ± 0.134
ecoli-0-6-7- vs -3-5	0.587 ± 0.158	0.620 ± 0.167	0.618 ± 0.168	0.586 ± 0.121	0.677 ± 0.122	0.600 ± 0.130	0.650 ± 0.148
ecoli - 0 - 3 - 4 - 7 - vs - 5 - 6	0.778 ± 0.080	0.833 ± 0.127	0.885 ± 0.084	0.872 ± 0.080	0.884 ± 0.077	0.883 ± 0.086	0.892 ± 0.075
ecoli - 0 - 2 - 6 - 7 - vs - 3 - 5	0.586 ± 0.145	0.617 ± 0.158	0.626 ± 0.154	0.599 ± 0.118	0.693 ± 0.108	0.596 ± 0.121	0.656 ± 0.140
shuttle-c0-vs-c4	0.990 ± 0.012	0.989 ± 0.012	0.989 ± 0.012	0.992 ± 0.012	0.992 ± 0.012	0.992 ± 0.012	0.992 ± 0.012
ecoli-0-3-4-vs-5	0.788 ± 0.105	0.803 ± 0.128	0.890 ± 0.109	0.908 ± 0.104	0.907 ± 0.104	0.902 ± 0.102	0.901 ± 0.102
	I –	<u> </u>	1,2	1,2,3,6,7	1,2,3,7	1,2,3	1,2,3

Table 9: Results for AUC metric

	GNB (1)	OSB (2)	OKNORAU (3)	TBAC (4)	OTBAC (5)	TBAW (6)	OTBAW (7)
Mean rank	2.317	2.622	3.963	4.720	5.988	3.671	4.720
	_	_	1,2	1,2,6	all	1,2	1,2,6

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)
glass4	0.304 ± 0.325	0.733 ± 0.206	0.735 ± 0.209	0.682 ± 0.290	0.746 ± 0.262	0.642 ± 0.291	0.714 ± 0.276
ecoli - 0 - 2 - 3 - 4 - vs - 5	0.768 ± 0.100	0.755 ± 0.135	0.868 ± 0.096	0.896 ± 0.087	0.893 ± 0.087	0.892 ± 0.087	0.887 ± 0.088
$glass\hbox{-} 0\hbox{-} 1\hbox{-} 6\hbox{-} vs\hbox{-} 2$	0.524 ± 0.114	$0.528 \stackrel{-}{\pm} 0.079$	0.545 ± 0.147	0.682 ± 0.155	0.699 ± 0.121	0.540 ± 0.149	0.565 ± 0.144
ecoli-0-1-vs-5	0.725 ± 0.286	0.764 ± 0.285	0.880 ± 0.102	0.882 ± 0.092	0.885 ± 0.094	0.882 ± 0.092	0.891 ± 0.086
yeast-1-4-5-8-vs-7	0.293 ± 0.044	$0.304 \stackrel{1}{\pm} 0.062$	0.438 ± 0.065	0.601 ± 0.142	0.601 ± 0.142	0.503 ± 0.120	0.509 ± 0.130
ecoli4	0.883 ± 0.085	0.888 ± 0.068	0.920 ± 0.080	0.927 ± 0.091	0.929 ± 0.089	0.927 ± 0.088	0.927 ± 0.087
$led 7 digit \hbox{-} 0\hbox{-} 2\hbox{-} 4\hbox{-} 5\hbox{-} 6\hbox{-} 7\hbox{-} 8\hbox{-} 9\hbox{-} vs\hbox{-} 1$	0.849 ± 0.077	0.856 ± 0.068	0.872 ± 0.073	0.547 ± 0.177	0.546 ± 0.177	0.835 ± 0.182	0.824 ± 0.192
glass5	0.933 ± 0.163	0.870 ± 0.275	0.870 ± 0.275	0.859 ± 0.278	0.859 ± 0.278	0.859 ± 0.278	0.859 ± 0.278
ecoli-0-3-4-6-vs-5	0.735 ± 0.109	0.783 ± 0.131	0.879 ± 0.115	0.891 ± 0.100	0.893 ± 0.099	0.889 ± 0.102	0.884 ± 0.106
yeast-0-5-6-7-9-vs-4	0.164 ± 0.068	0.136 ± 0.064	0.416 ± 0.281	0.789 ± 0.051	0.802 ± 0.048	0.629 ± 0.223	0.626 ± 0.253
yeast6	0.529 ± 0.045	0.558 ± 0.074	0.673 ± 0.106	0.881 ± 0.061	0.881 ± 0.061	0.851 ± 0.078	0.865 ± 0.067
ecoli-0- 6 - 7 - vs - 5	0.796 ± 0.145	$0.828 \stackrel{1}{\pm} 0.115$	0.864 ± 0.119	0.857 ± 0.105	0.863 ± 0.109	0.850 ± 0.102	0.852 ± 0.110
$glass\hbox{-} 0\hbox{-} 1\hbox{-} 6\hbox{-} vs\hbox{-} 5$	0.933 ± 0.202	0.882 ± 0.248	0.882 ± 0.248	0.843 ± 0.251	0.843 ± 0.251	0.843 ± 0.251	0.843 ± 0.251
ecoli - 0 - 1 - 3 - 7 - vs - 2 - 6	0.725 ± 0.377	0.737 ± 0.385	$0.737 \stackrel{-}{\pm} 0.385$	0.740 ± 0.387	0.739 ± 0.386	0.737 ± 0.385	0.736 ± 0.384
yeast - 0 - 2 - 5 - 6 - vs - 3 - 7 - 8 - 9	0.598 ± 0.077	$0.737 \stackrel{1}{\pm} 0.082$	$0.743 \stackrel{1}{\pm} 0.062$	0.624 ± 0.090	0.743 ± 0.071	0.552 ± 0.084	$0.692 \stackrel{1}{\pm} 0.104$
ecoli - 0 - 1 - 4 - 7 - vs - 5 - 6	$0.669 \stackrel{6}{\pm} 0.203$	0.774 ± 0.201	0.843 ± 0.143	0.807 ± 0.165	0.847 ± 0.166	0.827 ± 0.109	0.882 ± 0.093
yeast5	0.807 ± 0.028	0.772 ± 0.046	0.826 ± 0.034	0.975 ± 0.022	0.976 ± 0.020	0.973 ± 0.026	0.973 ± 0.028
shuttle-c2-vs-c4	0.988 ± 0.023	0.885 ± 0.300	0.886 ± 0.300	0.834 ± 0.366	0.848 ± 0.347	0.831 ± 0.365	0.845 ± 0.345
ecoli - 0 - 1 - 4 - 7 - vs - 2 - 3 - 5 - 6	0.517 ± 0.198	0.522 ± 0.235	0.620 ± 0.215	0.573 ± 0.228	0.711 ± 0.187	0.652 ± 0.186	0.754 ± 0.166
$yeast\hbox{-}0\hbox{-}3\hbox{-}5\hbox{-}9\hbox{-}vs\hbox{-}7\hbox{-}8$	0.324 ± 0.051	0.317 ± 0.108	0.484 ± 0.157	0.651 ± 0.136	0.660 ± 0.134	0.541 ± 0.136	0.586 ± 0.150
yeast-1-vs-7	0.452 ± 0.051	0.461 ± 0.074	$0.600 \stackrel{1,2}{\pm} 0.137$	0.665 ± 0.113	0.660 ± 0.109	0.608 ± 0.084	0.622 ± 0.100
$yeast\hbox{-} 1\hbox{-} 2\hbox{-} 8\hbox{-} 9\hbox{-} vs\hbox{-} 7$	0.281 ± 0.039	0.302 ± 0.060	0.437 ± 0.065	0.657 ± 0.119	0.657 ± 0.119	0.522 ± 0.106	0.544 ± 0.122
ecoli-0-1-4-6- vs -5	0.835 ± 0.108	$0.876 \stackrel{1}{\pm} 0.093$	0.885 ± 0.099	0.890 ± 0.091	0.897 ± 0.088	0.885 ± 0.094	0.891 ± 0.095
$glass\hbox{-} 0\hbox{-} 1\hbox{-} 5\hbox{-} vs\hbox{-} 2$	0.518 ± 0.148	0.461 ± 0.103	0.545 ± 0.144	0.665 ± 0.148	0.680 ± 0.147	0.515 ± 0.109	0.512 ± 0.118
yeast-2-vs-4	0.445 ± 0.216	0.326 ± 0.183	0.683 ± 0.255	0.859 ± 0.076	0.864 ± 0.068	0.822 ± 0.110	0.829 ± 0.129
$glass\hbox{-} 0\hbox{-} 6\hbox{-} vs\hbox{-} 5$	$0.903 \stackrel{2}{\pm} 0.272$	0.901 ± 0.246	0.901 ± 0.246	0.804 ± 0.322	0.804 ± 0.322	0.804 ± 0.322	0.803 ± 0.321
glass2	0.570 ± 0.109	0.583 ± 0.079	0.586 ± 0.131	0.700 ± 0.151	0.723 ± 0.150	0.591 ± 0.123	0.613 ± 0.089
yeast-2-vs-8	0.518 ± 0.136	0.539 ± 0.143	0.738 ± 0.112	0.738 ± 0.153	0.764 ± 0.141	0.729 ± 0.135	0.750 ± 0.131
vowel0	0.913 ± 0.040	0.901 ± 0.026	0.915 ± 0.024	0.879 ± 0.067	0.928 ± 0.051	0.875 ± 0.061	0.902 ± 0.045
$glass\hbox{-} 0\hbox{-} 4\hbox{-} vs\hbox{-} 5$	0.963 ± 0.149	0.922 ± 0.171	0.922 ± 0.171	0.916 ± 0.178	0.921 ± 0.176	0.916 ± 0.178	0.921 ± 0.176
$glass\hbox{-} 0\hbox{-} 1\hbox{-} 4\hbox{-} 6\hbox{-} vs\hbox{-} 2$	0.528 ± 0.145	0.534 ± 0.131	0.547 ± 0.164	0.676 ± 0.152	0.712 ± 0.112	0.584 ± 0.112	0.591 ± 0.102
yeast4	0.361 ± 0.067	0.287 ± 0.058	0.395 ± 0.083	0.801 ± 0.079	0.803 ± 0.076	0.589 ± 0.166	0.554 ± 0.207
ecoli-0-4-6- vs -5	0.842 ± 0.122	0.870 ± 0.111	0.887 ± 0.108	0.894 ± 0.090	0.893 ± 0.090	0.889 ± 0.095	0.894 ± 0.091
page-blocks-1-3-vs-4	0.730 ± 0.130	0.745 ± 0.139	0.789 ± 0.164	0.711 ± 0.129	0.742 ± 0.145	0.715 ± 0.129	0.715 ± 0.127
$yeast \hbox{-} 0 \hbox{-} 2 \hbox{-} 5 \hbox{-} 7 \hbox{-} 9 \hbox{-} vs \hbox{-} 3 \hbox{-} 6 \hbox{-} 8$	0.398 ± 0.065	0.275 ± 0.120	0.495 ± 0.216	0.884 ± 0.034	0.885 ± 0.034	0.818 ± 0.102	0.879 ± 0.059
ecoli- 0 - 1 - vs - 2 - 3 - 5	$0.305 \stackrel{2}{\pm} 0.352$	0.296 ± 0.354	0.637 ± 0.320	0.583 ± 0.313	0.672 ± 0.324	0.693 ± 0.231	0.772 ± 0.218
ecoli-0-6-7-vs-3-5	0.258 ± 0.355	0.348 ± 0.368	0.339 ± 0.371	0.275 ± 0.325	0.547 ± 0.253	0.329 ± 0.327	0.451 ± 0.331
ecoli-0-3-4-7-vs-5-6	0.756 ± 0.105	0.804 ± 0.189	$0.877 \stackrel{1}{\pm} 0.094$	0.861 ± 0.091	0.875 ± 0.086	0.873 ± 0.098	0.886 ± 0.082
ecoli-0-2-6-7-vs-3-5	0.278 ± 0.340	$0.364 \stackrel{1}{\pm} 0.348$	0.401 ± 0.331	0.324 ± 0.317	0.595 ± 0.194	0.331 ± 0.315	0.498 ± 0.285
shuttle-c0-vs-c4	0.990 ± 0.013	0.989 ± 0.013	0.989 ± 0.013	0.992 ± 0.013	0.992 ± 0.013	0.992 ± 0.013	0.992 ± 0.013
ecoli-0-3-4- vs -5	0.772 ± 0.112	0.779 ± 0.173	$0.880 \stackrel{-}{\pm} 0.127$	0.897 ± 0.126	0.897 ± 0.125	0.893 ± 0.122	0.891 ± 0.122
	<u> </u>	_	1,2	1,2,3,6,7	1,2,3,7	1,2,3	1,2,3

Table 11: Results for GMEAN metric

	GNB (1)	OSB (2)	OKNORAU (3)	TBAC (4)	OTBAC (5)	TBAW (6)	OTBAW (7)
Mean rank	2.341	2.695	4.183	4.695	5.890	3.622	4.573
	_	_	1,2	1,2,6	all	1	1,2,6

Table 12: Results for mean ranks according to GMEAN metric